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# INTRODUCTION

The Matrix is the last great frontier of the Sixth World, and it's only getting weirder and larger. Beyond the hosts that everyone uses are the Foundation, the Resonance Realms, the wild Matrix, and much more. Don't know what those things are? Then this is the book for you. But it's not just about the fringes of the Matrix. It's got gear and programs for deckers, complex forms and echoes for technomancers, and protosapients and technosapients for anyone who wants an unusual Matrix encounter.

But rather than just summarize, let's look at each chapter of the book and what it contains. After a piece of short fiction that takes you to the wild Matrix, *Wild and Free* provides an overview of the state of the Matrix today and how some of these more unusual elements fit in. *The Field Guide to Hacking* provides some tips and tricks for hackers, helping them see the full range of work they can do when they're running the shadows. Then *Gadgets and Gizmos* gives them new hardware tools to accomplish this work.

*Elegant Architecture* moves into the realm of host design, showing how hosts are assembled and made into a flow of data. If you're using or hacking a host, this is good stuff to know. Next is *Digital Toolbox*, which has new programs, followed by *Techno Tools*, which has new complex forms and echoes. While we're dealing with technomancer-re-

lated things, *Points of Sprite* discusses new types of sprites, powers for them, and some other rules to involve them in your game, including how to build a good reputation with them. *Quality Hacking* then provides new qualities for anyone hacking the Matrix.

*Union Forever* talks about the different ways hackers band together, forming groups with common goals, and what they can do for their members. *Virtual Life* looks at the other obstacles hackers might encounter in the Matrix, including techno critters, protosapients, artificial intelligences, and Emergent intelligences.

Things get even weirder with *At the Base*, which discusses how to visit the Foundations of the Matrix. *Infinite Memory* goes to another vast, unexplored area of the Matrix, the Resonance Realms. *Know Your Enemy* provides details on every hacker's nemesis, the Grid Overwatch Division (GOD), with thoughts on how to survive all the things they have to throw at you. It also has game stats for some Matrix operatives and new types of intrusion countermeasures (IC). Finally, *Matrix Business* provides a few adventure structures to help you jump right in and start a Matrix-based shadowrun.

With all this, players and gamemasters should have a wealth of options at their disposal to hack the Matrix and bend it to their will—or at least make sure it doesn't conquer them.

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First Printing by Catalyst Game Labs,  
an imprint of InMediaRes Productions, LLC  
7108 S Pheasant Ridge Dr  
Spokane, WA 99224



## MOONLIGHTING

BY CZ WRIGHT

Icy wind tore in through the open door of the aircraft, whipping Rye's shaggy black hair about. She felt frozen in place and off-balance.

"In or out? We gotta know," Foxtrot said over the team's networked voicechat—without that, she'd have had to shout to be heard over the din of the VTOL.

Behind Foxtrot, two hired pilots lay in rigger cocoons, insensate to the world around their bodies as their minds drove the plane. Black sky lay beyond, stippled with pulsing grey clouds underlit by a million neon signs. Rye couldn't even see the city anymore—how high up were they?

Ghost, she needed this job. Gram's medical bills were piling up. But this was a batdrek job, and the briefing had been so short: go into the Matrix but not-the-Matrix? "The Foundation" might seem like a dream, they'd said. It might seem like a nightmare, she'd inferred.

The horizon pitched, and Rye clutched the bar above the door. As the craft righted itself, Rye caught sight of Observatory Park, a patch of natural green at the center of the city surrounded by the wholly unnatural, coruscating consumer wasteland. The green stabbed a memory of home deep in Rye's heart. At least, the memory of home when Rye was little, back before Evo moved in next door—

"In," Rye said before she could change her mind.

Foxtrot nodded and smacked the back of the seat next to her. Rye slid in and fastened her harness as Foxtrot attached trodes and a biomonitor to her.

"We might show up together and we might not," Foxtrot said over the network while she checked connections and data streams. "Don't touch anything until we find you, okay?" Foxtrot said and clicked her harness in place.

"Sure thing, but if I find the Archive node while I'm waiting, I'll grab it." Rye bounced her legs while the wind snatched at her breath. "Then we can go get dim sum."

"Absolutely not," Springlock—the Matrix guru on the team whom Rye had never met in person—cut in on their network. "Do not touch anything; do not talk to anyone, until we are together. Is that clear?"

"Oof, sorry, that was my bad attempt at a joke." Springlock was way more of a hardass now than when Rye had met her last month—they'd had a good conversation. "Don't worry," Rye said, "I'll be your right-hand. No touching without you."

Foxtrot pushed a button on her comm so her voice wouldn't come through on the network. "I know we haven't known each other long, but trust me when I say Spring is in charge on this one, okay? We're here to assist her."

Rye nodded. "Got it."

A pilot's voice came through the intercom. "Time to go, folks."

Over the network, Foxtrot said, "On our way. Hold on to your butt," then touched a pad on her chrome arm.

Rye didn't make a habit of using VR, but she was no virgin, either, so a quick jump into the Matrix was nothing. She got the impression of being somewhere in between, of tight quarters and being hurriedly and quietly herded through a nondescript door. It was like being snuck into a



show. She kept her head down, followed Foxtrot through, then everything changed.

Electronic screams, a cacophony of static, like two wires crossed in her brain, filled her head, frying her synapses, sending her spinning, hurtling—

Rye gasped. She was in a dense, packed, cramped, smelly space, with the wind knocked out of her like she'd crashed from seventy-five stories up. Though with a stab of vertigo, Rye realized she wasn't lying down, but on her feet. The vertigo, the synapse-frying, the press and stink—holy Ghost, the stink!—of the crowd all piled on top of itself. With a crackling, electric nausea, pinpricks of light flooded Rye's vision, and all she could do was hold her head.

"Breathe," Foxtrot said from somewhere nearby.

Rye vomited instead, but rather than sick, silver coins burst out of her mouth and clinked onto the floorboards. The ill feeling passed quickly, shoved out of the way by horror, and she nearly choked. The crowd caved in toward her, shouting. Filthy hands snatched at the money on the floor from all directions.

"Come on," Foxtrot said, and she and a human woman Rye presumed was Springlock each took one of Rye's elbows and hauled her out of the free-for-all. Rye allowed herself to be shuffled to a small nook with log walls and a cupped, rough-assembled wooden floor covered in wood shavings in which no one loitered but themselves.

"Ghost, what *was* that?" Rye said, a hand at her throat. She noticed she wore a deerskin glove. That was new.

"Don't think too hard about it," Foxtrot said. "Just part of the program."

They all wore costumes out of a Wild West trid: deer-

skin, fringe, and bandannas on Foxtrot and Rye, a high-necked, old-fashioned dress on Springlock. Her stiff posture suited the dress.

"I have neither the time nor the inclination," Springlock said abruptly, "to repeat the briefing, but I will remind you that if you don't go with the flow here, you can alert the system. We want to blend in and avoid causing scenes, *not* point out how strange things may be. Is that clear?"

"Uh, yeah," Rye said, flushing.

"And are you able to work now? May we begin?" Springlock said, irritation showing in her voice.

Rye thought the speech and attitude were unnecessary, but this probably wasn't the right time to ask for an apology. Her gaze darted between Foxtrot and Springlock. "I'm good," she said.

Foxtrot, who had been studying the crowd's clamor below them, spoke up. "What can you tell us?"

With another glance at Rye, Springlock cleared her throat. "The Foundation's inhabitants seem to be human, though I've seen a few with modern cyberware. There is an ... oceanic quality to the paradigm, though I'm not sure what it entails, aside from the altered appearance of a few inhabitants. I found everything but the Archive. Let me show you."

Springlock led them around what looked like a giant Wild West saloon. Maybe once the place had been glorious—intricate hammered tin ceilings, gold velvet upholstery, and gleaming wood and brass decor—but not anymore. Dark mold crept in from all sides, staining everything. It looked as though it had been dropped to the

bottom of a lake and left there. Smelled like it, too. Besides the murk and the must, there was the drunken architecture. Around each corner you turned, two more could be found. Like the place grew and shrank as needed.

Despite the weirdness of the space, the inhabitants carried on in their—what, programming?—oblivious to any irregularities. A crowd line-danced to music Rye couldn't hear, so densely packed that if anyone fragged up, they'd all go down as one. A rotund, pallid barkeep poured drinks. At first glance, Rye mistook him for an animated drowned corpse, and now she couldn't unsee it. At a table next to the dance floor, a prospector swept up a heap of gold rocks—“Scaffolding,” Springlock said, pointing at him. A cybernetic donkey drecked ticker tape on the floor nearby. Springlock pointed from the donkey to a hitching post where a lineup of animals that each seemed a slightly different take on “horse” stood in a pile of droppings. She stopped on a large, spiny gold seahorse floating at the end of the post. “Anchor,” she said. “Our ride out once we have the data.”

Rye spotted a plank hanging from the ceiling and approached to read it. What may have once been a white wooden plank, now covered in black mold like paint splatter, declared this place “The Pink Lady” in a nearly illegible, frilly script. Rye spotted a too-large woman in a garish, tiered, pink and white dress standing on the far side of the dancers. The deferential way people surrounded her and the pink costume that made her look like a cake topper pegged her as the place’s namesake.

“The chef—Master Control,” Springlock said over the network.

“What’s that again?” Foxtrot said.

“I can use him to make small changes to the place.”

Rye noticed the others had moved on a couple dozen yards to a camp cook site. She headed over to join them.

“I thought you could make small changes already, on account of your techno-magery,” Foxtrot said.

“I can make small changes to us—our avatars, for example, but that’s all.”

Rye arrived next to the cold campfire of rotting logs between them and a short, spherical human man in a blindingly white, modern chef’s uniform chopping ribs at a wobbly table. Oblivious to the team, the chef appeared equally oblivious to the piles of molding, rotting, liquefying food-stuffs of every type imaginable. Grey-green sausages hung from the rafters alongside desiccated, fly-covered corpses of unrecognizable small game. Vegetables and breads—or what may have once been—sat in soggy and grey-furred piles. The fetid stench hit Rye between the eyes.

“Oh, Ghost, that’s the most ... ugh,” Rye let out a grunt of disgust and clamped her hand over her nose. Springlock turned to her, wide-eyed.

The chef stared at them, his gargantuan meat cleaver held aloft. Rye only noticed him because his steady chopping stopped. Springlock slid quickly between Rye and the chef, blocking his view of her. “Put your hand down,” Springlock growled without moving her mouth; her voice came over the network Rye had forgotten about.

Rye glanced between Springlock and the chef, then dropped her arm and awkwardly clapped her hands together with a loud *thwack* of leather. The chef stared at her. “That’s the most—” Rye struggled with her words, “—the most top-notch technique you have there, sir.” She made a chopping motion with her hand.

Did the lights just dim? A flicker of movement near the ceiling caught Rye’s eye, but when she looked, it was gone. The chef returned to his task without comment.

Springlock clapped a hand on Rye’s shoulder and pulled her around to face her—holy dreck, she was strong. “Out,” Springlock said between clenched teeth.

She led them to a ruined set of bookshelves overlooking the dance floor, where a new batch of unpleasant odors assailed them, not far from where they’d started their tour. The books were sodden, molding lumps on sagging shelves where they weren’t piled on the floor.

Springlock rounded on Rye as soon as they were all up the stairs. “What part of ‘do not talk to anyone’ did you not understand?”

“I—I was trying to improvise,” Rye said. “And that was from earlier, before we—”

“I did not hire you to improvise. I hired you to follow directions.”

Springlock’s eyes were wild, and although she did not raise her voice, it crackled with fire and ... something else. Rye spared a glance at Foxtrot, who avoided looking at either of them. It *wasn’t* just her imagination then. There was something unspoken here. Whatever it was weighed on Springlock and Foxtrot knew it, too. Rye should bring it up, make them either say it or avoid it, drag it into the open.

Springlock stared at Rye a moment. As time passed and Rye said nothing, Springlock recomposed herself with a sigh.

“The data trails,” Springlock continued, “are odors. I traced one from the kitchen to here. From here, I noticed a trail I thought would lead me to the Archive, but it only led me back to the kitchen. I believe we can find the Archive here somewhere. Split up, look around, and point out anything that seems odd. And hurry.”

Eager to distance herself from Springlock, Rye browsed the bookshelves on the far end and poked through the mess on the floor. *How are we supposed to know what’s what when it’s all nonsense? This doesn’t even feel like the drecking Matrix. What if it’s all in Springlock’s head? What if we’re all in Springlock’s head? Is that even possible?*

Rye picked through a pile of papers on the ground, which were more like clumps of wet plaster, and uncovered a small pile of crushed dead insects. Her stomach flopped at the sight, and suddenly she was little again, disgusted to find the shield-like bugs in her lunchbox. Later, they’d fall into her morning soymeal. When she and Gram and everyone else in town had to abandon their homes, they crawled over every surface.

“Springlock, what was that trail you found last time you were here?” she said.

“Rotting cilantro. I found some back in the kitchen. Why?”

Rye rose to her feet. “I think I found the Archive.”

Springlock was by her side in a moment, and Rye pointed at the pile. “Stink bugs smell like cilantro. Also kind of like a paper pulp mill.”

Foxtrot came over to join them as Springlock carefully smelled the insects. “You aren’t old enough to know what a paper mill smells like,” Foxtrot said.

“I grew up next to one of the last ones, so I know the stink.” Rye paused, reminiscing in dark waters. “Evo tore it down for their mine. You would have thought it was a good thing—old jobs out, new jobs in, but the mine threw everything out of whack. The land died, and for what?” She stopped abruptly, self-conscious of her rising anger.

Springlock crouched before the pile and removed her long gloves. “Is it really that simple?” she said, tentative. She placed her hands gingerly on top of the insects and lifted. The pile held together as one and hinged open like a trap door. Springlock gently swung the insect-door aside, placed her hands inside the floorboards, and retrieved a white mask.

“What’s that?” Rye said.

Springlock put her gloves back on, then took the mask—white and blank but for two eyeholes—in hand and studied it. A tangle of emotions crossed her face. “It’s what

we came for. You aren't the only one who's got a history with Evo's crimes. Let's call this the company's 'Mask of Respectability,'” she said and smirked. “We're gonna toss it out like the trash it is. Come on.”

They hurried downstairs. The dancers were thick on the floor, presumably enjoying their silent music, but the thinner crowd of onlookers gave room to skirt around.

Rye swore the place seemed darker still, but she found no reason the light might be dimming. Was she losing her sight? Was she losing her mind? Maybe they dimmed the lights for dancing?

Before Rye could decide whether to say something, Springlock froze and they bumped into her. “Drek,” she hissed.

The woman in the pink dress looked at them from the far side of the dance floor. A moment later, she was inexplicably in front of them, entirely blocking their path.

“Good afternoon,” she said. “I don't believe we've been introduced.”

Over the network, Springlock spoke as if to herself. “Frag, no. She's not supposed to be here. She's supposed to be on vacation.” Rye glanced over and saw with some alarm that Springlock had put the mask on.

“Good afternoon, ma'am,” Foxtrot said aloud smoothly as she gently took Springlock's place before the Pink Lady, “I'm sure you remember, we made your acquaintance some time ago—”

Rye took a step back next to Springlock while Foxtrot spun her story. “Who is she?” she said over the network.

“My supervisor,” Springlock said.

Rye stared at her. So many questions, but there was no time. “Okay, you didn't see her earlier, no big. She doesn't seem to recognize you,” Rye said. “We just need to go with the flow, right?”

Springlock was quiet a long time. “She's not going to let us go,” she said finally. “I think it's over.”

Rye's blood ran cold.

“Oh, pish,” the Pink Lady said, cutting Foxtrot off. “None of that interests me.” She picked her skirts up a few centimeters as if climbing a stair, but rather than the little black shoes Rye expected to see below her skirts, a mass of oily, thick, grey and purple stalks of flesh writhed.

Rye suppressed a gag. Foxtrot's smile froze on her face. The tentacles extended below the floor and out of sight, and Rye couldn't have said how, but she knew they extended everywhere, a silent network ready to punch through the floor and yank you down into the depths. The Pink Lady was a puppet on a gargantuan, alien hand-tentacle-thing.

Rye wanted to say something to Foxtrot—*Excuse me, our guide in the not-the-Matrix is having a breakdown, but we can't act like anything's wrong, so what the frag do we do?*—but she also didn't want to throw Foxtrot off her game.

The Pink Lady studied their reactions. She focused on Springlock. “Identify yourself,” she said, and with a crash, purple-grey tentacles lanced into the room, punching through the walls, ceiling, and floor like spears. Rye barely leapt out of the way.

A tentacle pierced Foxtrot's upper arm and slammed her into the wall. Her shriek must have snapped Springlock out of her paralysis, because she sprinted for the seahorse. Rye followed close behind.

A tentacle burst through the ceiling in front of Rye, and Springlock screamed as it pulled her up. Rye grabbed hold of Springlock's legs, and Spring flung out a hand toward the seahorse. Her arm stretched impossibly, shot out toward the beast, but the tentacle shook her once, hard, and Rye fell off. The tentacle pulled Springlock up through the ceiling.

Then the Pink Lady pulled Springlock back down

through the ceiling, wrapping several tentacles around her, encasing all of her but her head and holding her before her face. “Who are you?” The Pink Lady growled and ripped the mask off. Springlock's face was beginning to purple.

Rye sat, forgotten, on the floor. She had no idea what would happen if Springlock couldn't make it out, but she could only assume they would be stuck here since they had piggy-backed into the Foundation using Springlock's connection.

And then it hit her.

“Spring!” Rye scrambled to her feet and tore off her gloves. Springlock met her gaze, just visible over the squeezing coils.

“I'm your right hand, remember? Make me your right hand!” Rye ran to the seahorse, held on to the post with her left hand and set her right hand on the seahorse's spiny neck.

Springlock closed her eyes and Rye watched, heart racing. *Oh, Ghost, she's dead.*

But then Rye's hand flickered—it changed color, shrank a little, just for a second—and an audible *click* resonated somewhere in the distance. Roaring grew louder all around them, and the Pink Lady loosened her grip on all of them as she turned, confused, toward the sound.

A tsunami of water broke down the log walls and surged through the saloon, scouring everything in its path. The Lady screamed as the water bowled her over in a rush, and her tentacles whipped fruitlessly as she tumbled under. The wave of bracing salt water slammed into Rye, dislodged her from her feet, and she tumbled into darkness.

Rye started awake. The taste of salt lingered in her mouth. Her hair was plastered to her head—*Was it a dream? Was it real?*—and she slowly became aware of her surroundings.

She sat in the tacky plastic seat of a van, dripping with sweat. Foxtrot sat on the hood, smoking. Rye eased outside to join her.

Foxtrot started when the door opened with a croak, then relaxed. “You made it,” she said as Rye approached.

“Yeah, I guess I did,” Rye conceded and sat beside her.

They were in Observatory Park. Small delivery drones buzzed far overhead.

“What are we doing here?” Rye said after some time.

Eyes fixed on a point in the sky, Foxtrot nodded. Rye followed her gaze and spotted a nondescript drone moving swiftly toward them. It froze in mid-air above the trees, then plummeted as though yanked down by a chain. A couple of meters off the ground, it stopped, and a panel opened with a *shush*. A body bag fell to the ground with a thud, a speaker on the side of the drone said “We're fragging even,” and the drone zipped away.

Foxtrot threw the cigarette away and fell to her knees beside the bag with a curse. She ripped the bag open to reveal a small, aged dwarf woman wearing corporate attire. When the woman met Foxtrot's eye, Foxtrot fell back onto her heels in obvious relief.

Rye approached.

The woman slowly sat up. She took a breath and let out a long, shaky exhale. She wore an Evo employee badge, but the bottom half of it was melted away, right below the words “Top Level Clearance.”

“Springlock?” Rye said.

Springlock let out a tired laugh. “Not anymore. I think I've finally retired.”

“Well, whatever you want to call yourself, it's nice to meet you in person.” Rye extended a hand and carefully helped Springlock to her feet. “Maybe we can all get dim sum, and you can tell me whether I should expect to see some Evo news soon.”



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# WILD & FREE

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POSTED BY: NYBBLES AND GRAMIUS

The Matrix is great, isn't it? It's vast, thrilling, and comes in every color of your fantasies. It's fast—faster than you think it is—yet never as fast as you wish it was. It encompasses our world, all of it, and even reaches out to every world you want it to, thrill for, and are willing to give up your whole life to dive into. That's okay, though—you don't have to die for it. Necessarily.

Someone else already has. Many, many times over.

We're all users of the Matrix, or we're its tools already in use. If you're a *Trotamundos* subscriber, it's all at your mental fingertips. If you're at a café with a Komandochino simmering, its savory flavors augmented by the boosts allowing you to hypnotically gaze at the espresso-powered wisps of sensation as they rise up while enjoying the FreeFi feed provided at Soybucks, you feel the full range of possibilities. The squatters and homeless on the streets are even part of it, helping present an undesirable image of a world that will fail you if you cannot retain your hold on a part of it. Even when

we believe what we are getting is free, we're actually paying for it in some way. We either paid for the subscription or we've become another nugget in the unlimited goldmine that is the information pool we are drowning in every unthought-of second.

I had an aunt once who told me that nothing is free. I was going to school at the time, and we argued about how my scholarships were going to let me go to MIT&T for "free." She explained to me, "that's not free, it's prepaid by the work I'd put in and skimming from the top, and bottom, of my parents' paychecks and all the paychecks of my dad's workers, and their families, and so forth." Being the all-knowing person I was, I told her she was crazy and asked my dad. He told me the truth. My younger brother laughed, and I think some part of me woke up right then and there. Anyone who spends any time outside the corporate enclaves learns that at a significantly earlier age—if they get to live that long.

I learned that's part of the truth about the Matrix, too. No part of it is free in any true

sense. If we aren't paying directly as a subscriber, then we're borrowing someone else's access or probably just stealing it outright. I'd say it's messed up, but it's not. What *is* messed up are the methods and frameworks of the Matrix, tracing all the way back to its ARPAnet beginnings, through the early AR technologies after the Awakening, burned and risen anew not once but twice, mocking the mythological phoenix in ever new and changing ways.

## PERSPECTIVES

Without going into the nitty-gritty just yet, let's start with what the current incarnation of the Matrix has been for most of the last seven years or so. It's a technology that was the culmination of efforts headed up by Danielle de la Mar, an expert socialite, innovator, and person utterly devoid of any sense of ethical or moral constraints. What was presented to the CCMA and several immensely powerful individuals in 2073 was the idea of a whole new Matrix, one that would be built from the ground up, completely new to everyone. It would possess flexibility, security, and innovative operation technologies that were normally only available with the most powerful and elusive Matrix structures, ultraviolet hosts. Exactly how she was going to pull this off in the early '70s was not entirely understood, but she made an unmistakably alluring argument for it. It would be something that would require everyone to be registered in order to use it. It would give the CCMA, GOD, and the Corporate Court the ability to observe every operation within their sphere of influence, but still allow the megacorps the privacy and secrecy they require for their data. It would also, of course, give them the thing they wanted most of all.

### CONTROL OVER THE EMERGED AND AI

The scariest part of the growth of native Matrix entities for the people who believe they are in charge is the lack of control. Having a part of this new world that is not theirs to command is anathema to them. So any change they make that they feel gives them more control is something they want. The de la Mar Matrix fits this category.

How this was managed and who did it, including the cult-like group known as Hengester along with one hundred dead technomancers, isn't what I'm talking about yet. What I'm going to describe is the goal and how the control sought to be managed.

### THE FIRST BOX

In order to achieve the goals set out for the new Matrix, designers needed to have the capacity to



create an entirely new global grid infrastructure and put it all in place at one time. Impossible, you say? There is no way this could have been accomplished, not without it leaking out. Well, if you are reading this, it's likely you are operating within what someone I know refers to as the Grand Illusion. The False Symmetry. Because the initial outcome of activating the new Matrix protocols, or the Global Foundation, meant there is no physical infrastructure required. Hengester had learned that technomancers connect to a force existing in parallel with the data held in physical computer systems—maybe Resonance or what some people are now calling Nous. It didn't come from a device; it was a force that technomancers could manipulate, using it to read and alter data in the real-world networks that made up the Matrix with nothing more than their minds. They had a key but they needed the box—de la Mar provided that with her ideas for a new Matrix. Hengester gave her their research and thoughts on implementation. Once de la Mar had a vision and the means to make it happen, it didn't take long to create prototype deviceless hosts and a hand-wavey explanation of how they worked. GOD and the Corporate Court bought it, giving their blessing and nearly unlimited resources. Once that happened, it was only a matter of time before the new deviceless grid was up and running in parallel to the old system. After that, all that was needed was the flip of a switch.

- Hey, I seem to recall that Fastjack was given some kind of introductory access back in the day to test this by some individuals in the CCMA or GOD or something.
- Pistons
- He was, as were a few others. This wasn't part of the plan, but most of the megacorporations—and, I'm guessing, a few other heavy-hitter-type folks—realized early on they didn't want to completely alienate their deniable assets. I remember meeting with 'Jack and a couple others, and we cobbled together a bunch of things just so we could have a translation and sandbox to work in. Fastjack shared that file with us ... wait a second.
- Bull
- So now he goes looking for it.
- Slamm-O!

This meant that the whole world's new Matrix-to-be was a kind of a box with global reach. The first authorities and prominent powers were given access to the code that creates deviceless Foundation-tech hosts. This is the transfer circuit—a Foundation's Key, if you will—that they could use to establish their own hosts free of physical processors and the rules of physics. They established host rules, and they began registration of all their subsidiaries and so forth. The first box was a blank space with infinite potential that could be used by the powers-

that-be. Within that box—and in every new box—is a new host. There was never a reduction in the apparent processing power of the global Foundation. True to the intent, the new system allowed hosts to create, connect, expand, secure, become hidden, become nested, and any other function. Sure, there were clues as to what was happening, but no one really understood them and just kept accepting things as "that's what they do" or "that's how they work."

## INSIDE THE BOX (THE FREE)

As you may have figured out by now, everything we are using for the Matrix is almost certainly operating with reference to the inner workings of that first box, the Foundation-based one. If it's an accepted part of that construct, then there are (relatively) easy-to-find access portals. Of course, some of them are guarded and secured, and a not-surprising number of them are hidden from us. When someone uses a commlink or other Matrix-connected device such as a car, medkit, repair shop, smartlink, etc., they are communicating with what most of us perceive as being the "free" Matrix. It isn't free of course; it's just perceived as such because it's so prevalent in our lives. Even the people who subscribe to something are constantly told "x and y are included in your subscription" and are told those are free bonuses, even though the costs are actually worked into the subscription price.

- This is a psychological ploy that's been going on for over a century now, probably longer. I doubt it's going to go away unless we undergo some kind of society-wide catastrophe that forces us all to change. Possibly not even then.
- Snopes

## NEW BOXES

To help show how the current Matrix works, we'll give an example of the types of experiences one can have within many new hosts. This will include Virtual World Disney, which relies on the processing power de la Mar's Matrix provided—under the old model, they would have paid a fortune to get what they currently have.

## VIRTUAL WORLD DISNEY

The Mouse House is mighty and as popular as ever. Having surpassed the one hundredth anniversary of the original Disneyland theme park in California some time ago now, VWD now offers visitors all forms of packages including their full array of theme parks, both real and emerging.

- Hold on a second, I had to look. They really went and used that term? Emerging? What is it, a technomancer-only utopia?
- Stone

- It was a marketing decision on someone's part. They don't make those without a reason.
- Slamm-O!

With a combined attendance in excess of twenty million individuals a year, the parks offer a full array of activities. Disney maintains both physical and virtual parks, with the physical parks featuring an elaborate AR overlay that enhances the visitor's experience. While guests in the physical world mingle in the extremely secure park, they can also interact with visitors in the VWD host.

## PRIMARY VIRTUAL WORLD DISNEY THEME PARKS

- **Disneyland Grand Lacuna** (Los Angeles, PCC)
- **Disney Orlando** (formerly Disney World, Orlando, CAS)
- **Disneyland Europe** (Marne-la-Vallée, France)
- **Lantau Island Complex** (Independent City of Hong Kong)
- **Seattle's VWD Arena complex** (Free City of Seattle)
- **Cape Horn's Magic Cap** (Grotto Bay, Cape Town, Azania)

Everything is linked in VWD, with younger visitors who lack implants or augmentations receiving Mouse Ears, which have built-in trodes with age and parental lockout options and AR glasses based on classic Disney characters. Beloved characters are everywhere in the park, from the many versions of Mickey to iconic heroes and villains, old and new. They react to the visitors, even occasionally engaging them in games of virtual tag. The characters also serve as roving information kiosks, guiding people through the park and entertaining them while they wait in the seemingly unending lines. All this keeps everyone thoroughly immersed in the park experience.

- And it isn't just visuals. Theme parks have theme music. If you think "It's a Small World" or "Magic Inside" were earworms before, just imagine when they're piped in everywhere—and in every imaginable language. Sometimes you feel them more than you hear them, but they're still present. VWD invented this kind of engagement before there ever was a Matrix or even Internet, so they're the past masters at it.
- Pistons
- By the way, a certain someone wants to travel with Buzz again.
- Slamm-O!
- VWD knows that they don't just need to add to visitors' experiences; sometimes, they need to subtract. If there's anything that might detract from visitors' enjoyment of the park, or from the experience VWD wants to create, it can be overwritten and removed from the sensory feeds. For physical visitors, it's tough to completely remove distractions, but for

virtual visitors, the effect is absolute. They also erase employee buildings from sight, so that the wagerslaves have a place to hide from the hordes.

- Turbo Bunny
- Between the glasses and trodes, the food looks and tastes better in virtual reality, as the sim input of real food overlays the tourist's consumption of the soy version. Everything is brighter, cleaner, and happier than the real world as it skirts the edges of BTL legalities.
- Kia

## SOCIAL DISSERVICES: MEFEE

MeFeeds are livestreams of events in a user's life. MeFeeds can serve as a personal journal for self-reflection or be shared with a small group of people. Audiences are usually less than a thousand, but some users have feeds with followers in the millions. They can be created for instructional or entertainment purposes. MeFeeds are prolific on the Matrix, and the more popular ones get official sponsorship and bring in considerable ad revenue. Some feeds are subscription based, promising exclusive content to those who pay up (four of the Wu quintuplets have lucrative MeFeeds). While these feeds are not normally sim enhanced, MeFeeds are an escape from subscribers' dreary lives. Some subscriptions include virtual gatherings that allow high-paying users to feel like they are part of their favorite celebrities' lives. If you're looking to see where trends are going, watching the feeds of leading influencers is a must.

Travel pods and family travel rooms are in every hotel and entertainment building. They allow a seamless transition from AR to VR and more depth to the in-universe storyline. The Matrix overlay also serves behavior-modification purposes, using sensory stimulation and subliminal messaging. Any tourist who seems to be heading in a temperamental direction receives things such as suggestions on refreshments, mini AR games to play, or other distracting AROs. Security, of course, is immediately alerted just in case these ameliorations don't work.

## READING THE FINE PRINT (INSIDE THE BOX)

POSTED BY: NYBBLES

Let me sum up what Gramius is indirectly telling us: The Matrix is lying, all the time. Yes, it's all iconography based on rules to give an illusionary construct of reality, but it's also designed to make you believe what you normally experience is all there is in the digital world. Since the implemen-

## SOCIAL DISSERVICES: PERSONA (PITO)

Persona 2.0, or “Pito,” is Horizon’s proprietary reputation system. It originally consisted of live-networking, MeFeeds, reputation management, and sim feeds all in one. It tells others who you are, it constantly reaffirms your own importance, and it allows you to become a part of the glittering constellation of celebrities. Now you can become someone everyone else watches! At least that was the sales pitch in 2071. P2.0 was a golden goose for Horizon, as subscribers paid to turn their lives into a show. As with MeFeeds, some content is free, as people try to get enough viewers to encourage advertisers to pay them, while premium streams charge a subscription fee. All Horizon has to do is maintain the system.

More than a decade into its life, Persona 2.0 has gone through multiple versions and improvements, including some made when the hosts were connected to the Foundation. Even though it’s had several version upgrades, they’re planning to call it P2.0 forever, mainly because the Pito nickname caught on in the public consciousness.

- Woe be those little meaningless people who exist outside the Pito network. Even the ambassador-at-large for Yakut now has a Pito feed—with nearly thirty million subscribers.
- Sounder

The latest iteration of Pito has revised the scoring system to include reviews of your purchase history, the geotags on your MeFeeds, who is in your Pito Network, etc. It’s become more of a social credit system, one the big corporations have a vested interest in. They have their own hosts and bring all employees to their systems, which are often called Corporate Internal Persona, or CorIP. These systems play a role in all employee reviews, which includes evaluation questions such as: Did you purchase corporate-made products? Did

tation of the new protocols, the Matrix has been touted as the technological miracle. Corporations have bought into this proprietary arrogance for the price of infinite computational power.

Every new device in recent years has had to be built to CCMA’s doctrine. Security had to be scaled up so that even the decker had to buy new toys to continue to play online. This was all done for control. You may believe that your actions are performed through your own free will, but you use their technology in their creation. It’s house rules, and the house always wins. All data streams are directed by the Matrix. All your sensory data is overridden by company technology that controls the Matrix. All your actions are watched by GOD within the Matrix. So, do you still believe you are in control?

De la Mar guided the construction of this new Matrix based on discoveries made by unstable cultists, and while the CCMA has its rules, de la Mar had sought to permanently en-

code her own commandments. So, while within the Matrix, all that is visible and all that is searchable are the hosts and devices that have paid their tithes to GOD. It’s why everything looks so shiny and new. It looks great, but never forget that it’s primarily about control. Follow the rules. Color inside the lines. GOD watches over the hosts. It may seem altruistic, with the goal of protecting the Matrix from yet another crash, but that’s only the sugar coating on the blue pill of complacency.

With this iteration, the divide between the SIN-ners and the SINless, the rich and the poor, has become more pronounced. This new Matrix makes it a point to sculpt walled gardens and safe havens. But there are cracks in the walls, if you know where to look.

Everyone has been taught, told, or commanded to believe that the keyboard cowboy is dead and gone. After only thirty years, their skill in cooking custom chips is now primitive in the age

of quantum computing. “Buy before build” is the new mantra for today’s decker, and yet here we are coming back to these same software samurai to forge the impossible: a way to see the lie. Even if you are skilled enough to find the crack without assistance, you won’t be able to pass through.

- These two are right, you know. All hardware augmentations use translation software that enables them to work. Yes, people with cyberjacks are not only faster, but it has been proven they have a more inherent grasp on Matrix operations than non-augmented people using just their cyberdecks. The only group of users that seems to have an equal, and perhaps even better, grasp of this are technomancers, sprites, and AIs. This is likely because the technology is built on Foundation-tech connected to the Resonance, regardless of whether this was intended. The flip side, of course, is that the Foundation-based Matrix has also been able to react faster, and more lethally, to the Emergent and non-Emergent alike.
- Plan 10

## OLD BOXES

To the typical wageslave, everything appears to be in order. Corporate grids hang higher in the digital sky above the city and the public grids. This is how it has always been. But outside the box is a clutter of packaging that wasn’t recycled. Those on the streets or squatters who can’t afford a SOTA commlink find themselves already ousted from even the public grid. The same goes for the SINless without a fake SIN trying to use a commlink, as typical Matrix service providers require one. These undesirables are pushed to a more rickety Matrix, keeping the prime one “safe” and “clean.” Yes, that means the public grid is for only the right kind of public.

- This is still the 80/20 rule of fixing things. We’re in the 20.
- /dev/grrl

As we know, prior to the Foundation-based Matrix, everything was supported by a hardware operating, cloud-like services community. We use the term “community” mildly, for just like today, if you didn’t have recognition from the megacorporations or a first-world power, you were out of luck. Some of that hardware was very innovative and arranged in a nearly two-decades-old system of security coordination and protocols, but as the system grew and was asked to do more and more, the strain started to show. At least, that’s the story.

By contrast, there has never seemed to be any kind of limit to the Foundation-based Matrix. As business progresses, the expansion of that system presses on. Every single one of the former Matrix hosts migrated from the older infrastructure to

the newer stuff. At times, this was done en masse by a corporate division or subsidiary. The hardware systems themselves were often shut down and placed in storage or taken through detailed processes of sterilization to guarantee file security, then scrapped. One thing that happened along the way—and this is something literally no one seems to be talking about—is the amount of money that people started to save because they were no longer required to operate these massive, power-sucking warehouses of hardware.

- Finally! Someone is getting to one of the bigger questions.
- Plan 9

Ultimately, this made two things more available. First and most evident to the larger users was the availability of a considerable amount of electrical power. Certainly, everything is digital and optical and doesn’t emit as much heat as older systems once did. But all the emitters, relays, transmitters, capacitors, and framework provisions still need juice. Make a comm call? Power. Share in a simsense game? Power. Drive your car to work? Power. Just at this point, the hosts themselves no longer needed electrical power. Smaller devices did, certainly. But all those major computer hosts, and the smaller ones, were no longer sucking it up.

- I did some quick looking. Compared it to information from a few years back. Gramius and Nybbles have hit upon a solid issue. There was a time when the power consumption in several sprawls did in fact take a strange redistribution uptick. Easily more than 93 percent of all corporate service sites re-allocated electrical distribution and consumption. This all took place in 2075 and continued until 2077. All the numbers now seem to have evened back out, but the rates of draw are ... different.
- Snopes

During this period, there was also considerable redistribution of material stocks and the staff that would have been involved in supporting them.

- Come to think of it, I remember a server farm in the FRFZ shutting down and the contents of the servers and hardware redistributed. None of it was broken, but it was closed, emptied, and I think the building is now a vertical grow farm. Definitely a few years before GW went on his last great rampage.
- Puck
- There was a considerable amount of good quality hardware I off-loaded to some folks in the general Berlin area as well. A few of them confirmed what I had was better than they expected, but it needed to be coded from the ground up. That was back in '76, if I recall correctly.
- Falchion

## BRIAR PATCH

Puyallup's ugly version of a Matrix is a haphazard conglomeration of wireless hotspots and LTG hardlines that weren't scavenged for materials. With the spending to create new commercial workspaces, there is a prolific number of faults as Puyallup residents and contracted unions work to get the Matrix functioning. There are so many faults that if you look sideways, the "wall" disappears for that moment, and you can see the Matrix as a whole. This risk of working within the Briar Patch is that it's constantly moving and unstable. One false move, or even not moving for a time, and that connection you were relying on breaks, delivering dumpshock. The decker gangs love it here, but because of the push for legitimate business growth, Puyallup is looking to raze the Briar Patch.

In many instances, the hardware was loaded with archival information, then powered down. It's only brought back online when someone wants it, which helps verify that not absolutely everything was migrated over during the Matrix transitions of the time.

- I'll be honest—this has helped some people I know in the past. Some sharp-eyed individuals I know started to put this together a few years ago, and it allowed for a few of the more troublesome Emergent types to be tracked down and relocated.
- Clockwork
- Strange story, I was in Toronto during the blackouts. Nearly everything in the core was just black. There was nothing. No juice. Some pals and I were scrounging around, and a guy's cyberlimbs suddenly reclaimed their mojo. Managed to pin it to a van that was parked in a garage. Few muscle types lounging around, of course. We lit up a 'link, and sure as hell, we had Matrix! Decided to make a move on the van and the fellas in it, but wouldn't you know, we never did find anything providing power. Stuff was just "on." Then, it wasn't. We couldn't figure it out, no matter what we did. Is this related to what is being said here?
- Aga Kahner
- No, but you're thinking on a good path.
- Nybbles

## SCREAM DREAM PRODUCTIONS

Scream Dream was a Los Angeles host for low-budget horror trids from way back in the '50s, with lots of "monster" bots, music synthesizers, and editor agents to help directors put together the next indie horror trid. Between Horizon buying up small studio businesses and the Twins (see Earthquakes), it is amazing that a physical host this old has survived. Scream Dream Productions, which is physically located on one of the many islands in Los Angeles, got a grant for off-the-grid power development and is a good example of a wild Matrix legacy host—it's so old, it's outside of GOD's notice and is sustained by many patrons renting their system to create more low-budget films or enhancing their Pito posts.

Of course, we now know the corporations didn't completely rid themselves of all the old hardware. Some of the more powerful or harder-to-transition content remained mirrored on the original Framework-style hosts upgraded to the current protocols, and some of those mirrors remain in place. A considerable amount of hardware remains in operation, but every piece is connected to, updated by, and monitored from the global grid. To the everyday user, this operates seamlessly.

## ALONG THE EDGES

While much of the Matrix is contained, there are wilder sectors. Beyond normal limits, experiences become stranger, more random, and more hallucinatory. There are also unofficial hosts, groups that connect to the Matrix even though they are not supposed to. The older Shadowland BBS once was here, as were, or perhaps still are, members of the Undernet Alliance, NooseNet, and their like.

- It is good to see these survivors are not so easily snuffed out completely.
- Hannibelle

It is safe to say that nearly all the shadowy data havens of the world have at one time fallen into these unmappable parts of the Matrix. Numerous neo-anarchist servers can be found here, as well as paths that lead to the massive Hacker House data structure. Short-term neighborhood hosts and host-wannabes can also be found here. Several are quite temporary, established by local neighborhoods, gangs, and even Mr. Johnsons who don't want to be tracked back to any official corporate connections.

- Intel agencies, such as Aegis Cognito, keep a sharp eye out for these borderland hosts. If one makes a sudden appearance, it is just as likely to be established for the purpose of espionage as it is for a M.O.M. fundraiser. Even GOD cannot patrol all these locations, as they are simply too vast in number. But they can and will monitor the signs for their unregistered and unwanted connections.
- Thorn

While we of the shadows can choose to travel inside or outside the box, not everyone gets that choice. The SINless and destitute try to find any vestiges of happiness that the Matrix could provide as they scrounge around the wall that surrounds the box. They're just more victims of the new Matrix. Out here, the darker side of people and agents can tinker with BTLs (better than life chips), malware, and persona software, adjusting levels of addiction or lethality at their leisure.

- This is an overly grim picture. The outskirts are where you can see the beauty and potential of this Matrix. There are organizations out here doing research on digisapients and proto-AIs, and others using the open source for creative art and sculpture. There's even a peddler of the written word who sells dime romance and science fiction novels once thought lost.
- SeaTac Sweetie

## MATRIX FAULTS

Basically dead zones in the Matrix infrastructure, Matrix faults are much more likely to occur in the wild Matrix than in properly maintained areas. Running into one requires an Electronics + Logic test with a threshold equal to the fault's rating; failure means that you are dropped from the Matrix, suffering dumpshock if applicable. Faults can be spotted with a single hit on a Matrix Perception test, if you happen to be looking for one.

These hosts are notable for their diversity and ingenuity. Yeah, there are plenty of aspects that are copied from one to the other, but there are also many that are the result of some new programmer's quirky muse. It's also noteworthy that unless there is a reason for them to be out there, there are no corporate demi-GODs or other operatives around. So, unless you are within the scope of some tiny subscriber service that connects some village in the Andes or Himalayas, you shouldn't run into much in the way of opposition.

- Nybbles neglected to mention that it's not impossible to run into roaming AIs, e-ghosts, or even some of the more predatory protosapients. Emergent beings, including free sprites, dislike these areas for reasons that are their own, rarely venturing into these zones or staying for too many cycles.
- Gramius

## FINDING FAULTS

The megacorporations spend a lot of resources trying to fill any cracks in the Matrix they discover. Happily, the very need for them to do so often leaves more cracks behind. Crash 2.0, with AIs dueling while the Jormundgandr virus rained down on the Matrix, had repercussions far and wide. It also sent out shockwaves that tore into the fabric of the Matrix—a Matrix that at the time did not utilize Foundation programming. It still worked. It was still lethal; it still prevailed, usually. It still had UV hosts. So why the new Matrix? Why the need for a Foundation-based system, and how was this accomplished? All of that is known now. Danielle de la Mar led a CCMA project that linked the minds of one hundred technomancers and formulated a base—the first Foundation, in fact—as part of the Global Matrix Initiative from which now (nearly) all Matrix activity takes place.

## NEON CORRIDOR

Another example of what you can find in the wild Matrix, the Neon Corridor was the gateway to the public archives of Yamatetsu, back before it became Evo. No one has bothered to update the corridor. This chain of former hosts (including MetaMatrix, MetaErgonomics, MetaErgonomic Engineering) is a collection of projects, news articles, commercials, and PR programs designed around understanding metahumanity. These archives provide a look into some of the roots of Evo's pioneering work to reach out to a wide range of metatypes, and rumors say some digging could uncover information about the intrigue that led to Yamatetsu's takeover. If anyone has found anything juicy, though, they haven't shared it with the public.

## THE EXCHANGE

Most often thought of as a Matrix urban legend, the Exchange is out there somewhere. Deckers can sometimes find a little red commlink icon floating in a host. Activating it uploads a time and coordinates that can help the user find a throwback commlink left at the location for them. At seemingly random intervals, the throwback commlink will receive a message prompting the user to take some non-threatening action with the promise of being "karmically rewarded." Such actions include leaving a clip of ammo in a particular stairwell, buying a soyburger from the food vendor at 3 a.m., and leaving a jacket and flashlight in a particular alleyway. Completing these actions leads users to strokes of luck and happy accidents.

These seemingly random events are assumed to be operated by some AI, but the challenge, even after a decade of searching, is no one still understands who all is connected to this network and who is delivering the messages. Those who have used the Exchange in the past have found it useful if a bit unusual. Since the implementation of the new Matrix, there is concern that the Exchange has become less functional, as the information is outdated and the timing seems off. Whether it continues to degrade is an open question.

Those few witnesses to what happened in the Boston ESCE Matrix back in November 2064 indicated that during Crash 2.0, the AIs present (namely Deus, Megaera, and Mirage) as well as the largest expression of the Jormundgandr worm were sucked down into a massive hole of sorts—a data singularity, an enormous fault in the Matrix. Something that had never been witnessed before. All of this coincided with one of the heaviest online user participation events in history, the Novatech IPO. Everything sucked down into that singularity went *somewhere*, though where that is remains the subject of debate, mainly by a few fringe conspiracy groups, isolated think-tanks, and a few rogue engineers.

Even in building the new Matrix and incorporating the Foundation, subtle code discrepancies have leaked in at a host level. Many of the discrepancies are minute, though they can create sensory



differences (pixelation) within the architecture of the host. If enough discrepancies occur in the same place, it causes a fault in even the best-maintained system.

- It's not all fiber optics connecting the telecommunication grids, though many times that's where the faults are. There are legacy satellite constellations still in operation, globally bridging the gaps between the regional grids.
- Icarus
- Some say it's Dissonant interference in the background Nous particle field. Others would say it's Entanglement Sudden Death (ESD).
- Plan 9
- Waiting for T3chK1d to start commenting
- Perri

What if there's a fault on a virtual host that still has a physical clone? In theory, one could step across from the virtual version of the host to the physical backup (and vice versa) instead of getting dumped out of the Matrix. So far it seems that it still causes dumpshock as the persona loses its frame of reference and exits the Matrix. On a tangential theory, some technomancers believe that faults are actually the beginning of a Resonance or Dissonance wells, and you can use them to freefall into the base of the Deep Foundation.

- I've heard that some hacker gangs are purposely tampering with the code in order to hide hosts behind faults.
- Respec

## THE WILD MATRIX (OUTSIDE THE BOX)

There are many aspects to what is referred to as the wild Matrix that make it difficult to squarely nail down. That's because it's *wild*. There are no plans out here, no divining or mapping things for long. No GOD or demi-GOD holds any sway. Nothing that operates in the wild is registered with the Corporate Court's new Matrix protocol grid plan. With some of the instabilities being witnessed, some believe the wild Matrix is spontaneously generating itself from the Deep Foundation-based areas. Others say this isn't happening, mainly because they don't think the wild Matrix exists. That's foolish, though, because anything constructed has a border, and any border has something on the other side. Beyond the Foundation-tech Matrix is a space where the controls of metahuman development end and an entirely new universe begins. This is where the first spark of artificial intelligence manifested, where sapience beyond our understanding originated.

- It's really sad metahumanity is so arrogant to believe this way.
- Eeroo

There are two sides to this wild Matrix, which we'll call Side A and Side B. Side A has been with us since the inception of the original Matrix. Side B, however, originated with the introduction of the Foundation-tech grids and hosts.

## NAVIGATING THE WILD (GAME MECHANICS)

Anything related to Searching or Scanning that takes place within a wild Matrix zone is more complicated because there are no methods of addressing readily available. When performing a Matrix Perception test, a dice pool modifier of -1 to -4 is applied against the perceiving individual if they are using technological devices such as a commlink, cyberdeck, RCC, or vehicle sensors. Emergent individuals, sprites, protosapients, and xenosapient entities do not suffer these penalties when in a wild Zone, and in fact benefit with a +1 Edge for all their actions, including Surprise and Defensive tests of all types.

If non-Emergent individuals using devices want to avoid these penalties, they have to establish a series of landmarks or waypoints. When building this kind of map, the user makes a Waypoint Test. How often they need to do this depends upon the success of the test. This is done with a Cracking (Electronic Warfare) + Intuition (3) test. The Waypoint counters the effects of a wild zone for a duration equal to (Data Processing) minutes. Waypoint tests can be done with teamwork, and any additional hits beyond the threshold increase the duration by one minute.

## THIS SIDE UP (SIDE A)

Ever since the systems were rebuilt after the Crash of 2029 and in each subsequent iteration of the Matrix, there has been a feeling that something else is out there, beyond the prebuilt logic constructions. The primordial churning of psychotropic viruses and petapulses of metahumanity's manifestos gave rise to homegrown digital sentience inside what would become the Deep Foundation. Well-worn data trails lead into fractal forest groves and warm lakes hidden among the archives of cold storage. Less like the chaos of Foundation-originating manifestations, this wild side of the Matrix can be found in archaic hosts and their reflections that bubble up from the Deep Foundation with form and structure, evolving from metahuman ideals. It's a fascinating view of adaptation outside of any metahuman controls. Some say that the wild has its own goals in shaping the Matrix.

The Matrix is also vast, with a wireless network that is theoretically accessible around the globe and into the heavens. And within this space, Emergent animals evolved alongside mundane species, able to influence and even operate the

Matrix. Emergent species of cats, dogs, dolphins, rats, and more can be found roaming the Matrix. Many have learned how to navigate the Matrix to gain an advantage. Advantage in hunting (hacking a vending machine counts), finding a mate, and avoiding predators (unlocking a maglock).

- The wild really got wilder ...
- Slamm-O!
- Find someone who handles Matrix Safaris if you want to go into the wild. I know a guy; his name is Cannon. He's familiar with them. His guide, Wraith, is a persona the likes of which I've only seen in old Patterson's Guides.
- Gramius

While most Emergent species do not appear capable of building a host, they have found the wild very appealing. Memories, scents, and favorite patterns call them. The Emergent have been able to find hosts in the wild and adjust the architecture to be more appealing to them. Some are sanctuaries, some are ready rooms where they plan their day, and some are ... well ... hookup houses with hacked AR and VR for attracting mates.

- This is not entirely true. There are some Emergent who can construct hosts, or host-compatible structures, but they take other forms and so far have never expressed a Foundation basis. Certain forms of coral have been found to do this, as have e-fauna such as ants and termites, and no not the insect spirit kind. Certain communal nesting birds and even spiders have done this in parts of the world as well.
- Netcat

Curiously, most Emergent species find the hosts of the old Matrix hospitable, with many having fled further into the wild. Warning to the watchful: If you have Matrix access and are pretty far from civilization, the odds are fairly solid you've wandered into a wild Matrix zone, and a portion of the critters you're likely to encounter scampering and stalking about have their Emergent natures with them. No, not every little bunny is also Emergent, that's not what I'm saying. However, if your 'link's firewall just got tagged, that bunny may go vorpal.

- Our bastet doesn't go out very often. The old home network and virtual rooms we set up are where she mostly stays. She gets very irritated when she is not in the old neighborhood.
- Netcat

## HANDLE WITH CARE (SIDE B)

A newer version of wild generation was introduced with the adoption of Foundation-tech as virtual hosts brought exceptions and irregularities with each connection. This has led to what may be best described as "Resonance leaks." That extra

## CIBOLA

Since 2050, Puebnet's unique design has offered autonomous self-governance and maintenance, even prior to GOD's meddling. Hosts of the Puebnet took on a modern interpretation of ancient pueblo cities. Each had dozens of agents to assist the user in finding information within Puebnet, fixing corrupted software, etc. It had self-generating constructs to protect the hosts from hacks and tampering; each reload helped it adapt to the situation. This is how it managed to quickly repair hosts during the second Crash.

The Pueblo Corporate Council (PCC) was a first adopter of the new Matrix protocols handed down by CCMA in 2075, but Puebnet had alternate ideas. When the CCMA started converting the net over to use the Foundation, there was a series of ghost purchase orders, maintenance tickets, and asset moves. At the end of the week, seven servers, containing the largest clusters of hosts, disappeared. Puebnet had reached a higher level of autonomy and removed itself from the Pueblo Corporate Council's control. It now lies some-

energy and information allows the spontaneous formation of so-called wild hosts. The difference between the two sides of the wild can be noted in that this wild side was not based on metahuman concepts, though they could have a kernel of related information based on the connected hosts.

This wild is occasionally more aggressive in its intrusion onto the Matrix landscape. Some aspects have parasitic roots, exaggerating host topography or destabilizing a virtual host with its own wild interpretation. While small in numbers, wild hosts are challenging for GOD to find and terminate. If not taking care of making corrections at a Foundation level, the wild can return again and again. This side of the wild is where people have seen protosapients and all sorts of e-fauna migrate from who-knows-where into the new Matrix.

- Not just the new Matrix. The boundary between the Foundation-based, GOD-enforced Matrix and the wild Matrix only slows or deters them, like a bubble curtain to sharks. If the environment is right, they will come find shelter in most hosts.
- Vida Nova
- Isn't that what happened in Boston?
- Sounder
- In some instances, almost certainly.
- Gramius

As the CCMA continues to come with improvements and automations building the "better" Matrix without fully understanding what they are dealing with, more and more irregularities are showing up. Either it will blow up into digital pieces sending us back to paper and pencil, or they will have built up enough experience to tamp down any weird/extraneous code.

where out in the free Matrix, dubbed Cibola as a snub to those looking for it.

The PCC government is still looking for Cibola. While new Matrix protocols leveled the playing field between the corporations with regard to technology, the PCC used to be on top in security. They are hoping to get their edge back with the study of Cibola's theft and how it was transferred into the wild Matrix. Most of their original network R&D was lost or not compatible, so reconstruction is impossible.

There are a few stories from deckers, usually involving avoiding GOD and finding a host to duck into only to discover Cibola. These hosts are unusually quiet, except for the agents and constructs in operation. And as with many of these stories, the hosts can never be found again once the decker leaves. Core Warrior, an old decker, has been looking for it for an awful long time. His theory is, given the nature of Cibola, it may be (or have) the solution to keeping the wild and free Matrix from disappearing.

## TELLING THEM APART

POSTED BY: EERO

I am overjoyed to explain this to you, for certainly many of you do not understand the subtle differences in the depths and echoes of the wild and draw false beliefs that these are in fact part of the expressions of the Deep Resonance or perhaps even another surface of the Reflecting Pool.

- Quick explanation. Eero is not a metahuman but is most certainly and quite evidently a sapient being. He's native to our world, and I've learned he's about the same age as myself, so twenty-something. His inherent comprehension of what he calls the Great Oceanic Wild is nearly unrivaled, as is his ability to navigate it. See, Eero is an Emergent blue whale. He has helped some lucky individuals such as me learn how to tell the difference between the wild and the edges where the Deep Resonance occasionally surfaces to our Matrix world.
- Gramius
- He's a fish?! No way?! I wanna ride! By my sledgehammer, you're a big one!
- Slamm-O!
- Not to confirm or deny his nature, but I can say that Renaku and Shiawase have both put forth standing bounties for Eero ever since he was associated with the dismantling of a bottom-trawling fleet last year. Reports say you're never alone, big guy, so I wish the best of luck to all of you!
- Ecotope
- He is never alone, that much is certain.
- Sounder

There are simple cues to inform one when they are in the wild and when they are not. Those same cues, when people are practiced at recognizing them,

## E-FLORA

Within the wild Matrix, and occasionally “transplanted” to a Foundation-based host structure, are forms of e-flora. These usually resemble plants from the physical world due in part to how they are translated by the simsense interpreters of Matrix devices, including commlinks, medkits, and hosts. These are complicated data structures seeking to fill unused Matrix space, such as storage nodes, unused processing power, and even data transmission structures. One of the most familiar forms of these are the “vines” that have been found proliferating in many Foundation-based structures and can even be found within the Foundations of hosts themselves, especially the Null, Scaffolding, and Archives.

- Interaction is subjective. I've heard some deckers found a version that has limited psychotropic properties.
- T3chK1d
- Why is it that when metahumanity finds something new, they try to lick it?
- Pistons

E-flora functions much like common weeds in the real world if left unchecked. Where they are found, they quickly establish themselves and take up as much unused capacity on a device or host as they can. It was believed once that they were originally generated by Emergent entities or groups such as the Null Sect, but it is now theorized they were merely transplanted by those individuals as a means of bringing a Foundation-based host or supported device to a state of dysfunction. Administrators can rid themselves of

also will tell people if they are near an upwelling of the Deep Resonance. When a diver—er, decker—is traveling the wild, they will notice what you refer to as an increase in distal noises—that is, interference in communicating with registered hosts from the civilized part of the Matrix. All but the most prepared travelers will eventually lose all connection with the hosts they are more familiar with, as the wild simply overwhelms their sensorium. There are some parts and aspects of the wild that enhance this separation, and indeed I have sensed much apprehension in those who are not as prepared as they believed they were. You call it fear. So do I.

Simple observation of your surroundings will tell you when you've ventured into the wild. The structures, beings, and regions will take on a more ... aboriginal ... feeling to them. Those of us who are Emergent share an association with the Resonance, and the same is true with the wild. But our associations do not bear the maker's marks of your GODs or societies. Our freedom from such inclusions also makes charting and navigating the wild more difficult, because the devices you use require directional relationships. The Emergent, including technomancers, do this naturally. We formulate a

an overgrowth of e-flora from a Foundation-based host by performing a purge and reformatting from within the Foundation. This, of course, means the entire data structure is sanitized, including the archives of the host. It has also been found that successfully planting a data bomb within the e-flora data structures blows them to bits

Emergent beings can manipulate e-flora in a variety of ways. Those munging beings can eat the data structures and fulfill their consumption requirements as they do so. A few more cognizant agencies have taken to providing services with the use of a species of Emergent goat that can be herded by trained users with appropriate access. Technomancers and certain sprites can purge the unwanted data structures without destroying a Foundation-based host. What has also been learned is that some Emergent beings will use e-flora to construct small host-like structures for themselves. The diversity of these structures can have a stunning sensory impact upon the viewer.

- I've learned that you can track the e-flora in a host through its data structural roots, allowing some of us to hunt down various undesirable entities or agencies.
- Marko
- There's more of a serendipitous feature used by some who “plant” these. We know they can be shaped into a weapon against the indigenous Matrix population (deckers, AI, technomancers, emergent critters).
- T3chK1d

sense of landmarks. You can have your devices do this, but it needs to be set up, pre-programmed as you call it, for it to work. If you do not, performing the most basic tasks when navigating, including “logging off,” becomes an act of conscious will.

After a fashion, the same practiced sense of awareness will help a decker increase their chances of recognizing when they are at the edge of an upwelling from the Deep Resonance. The Deep is a vastness that provides energy, inspiration, expansion, and yes, even life to the Emergent. When you are traveling in the wild Matrix and you come upon these, the data structures will take on more integrity and substance. You will discover your devices simply cease to offer translation to something that is incomprehensible not just to yourself, but for the device as well. If you are fully immersed with a hot connection, then you will not crash or suffer what your kind call dumpshock. However, if your nature is not Emergent, or protected in some way by the Emergent, when you cross over into the Deep, it will be your last act. Unprepared or unprotected beings are simply incapable of staying coherent. Your awareness expands uncontrollably, and you are lost to the Deep. Much like drowning.

## SPECTRAL HOSTS

Matrix users tell scary stories of those whose souls became trapped in the Matrix after Crash 2.0—e-ghosts unable to return, now haunting whatever host they were last in. But what if the host itself was a ghost? Since the introduction of the new Matrix protocols, there have been stories about the appearance of defunct systems, echoes of systems from earlier versions of the Matrix or reflections rising up from the Deep Foundation. Similar to regular hosts, only these have permanently crashed or—stranger still—have a physical location that doesn't exist due to natural or unnatural disaster. They appear where they once used to be, but they don't stay there long. Users entering these spectral hosts will still find the architecture, agents, even IC functioning as if it still existed.

- If you want to see a ghost host, and are brave enough, there is one that occasionally appears within the vicinity of the former Boston ESCE host. When it does, it howls like a monstrous train and looks like, and I do not jest, a literal black hole. Do not enter it. No one comes back.

- AJ

The more unnerving part of these hosts is interaction. Intercepting the video feeds and seeing Los Angeles before the Twins or somehow conversing with a host's security decker, only to find out he didn't make it out of Boston. Theories range from Resonance echoes to foundational copies. These hosts can appear anywhere in the Matrix. As indicated by their name, the spectral hosts slowly de-rez to nothing, so it's best to exit as quickly as possible.

## CHARYBDIS (WILD ZONE)

CaribNet connects the various island members of the Caribbean League across expanses of water. The grid reflects exotic locations and high-seas adventures. Charybdis was initially put in as a joke as part of that grid closest to the Bermuda Triangle, where the Matrix goes a little crazy. Experienced local deckers use this instability to elude pursuers. Stories say that there are sea monsters here that can eat your comms. With CaribNet mostly inside the corporate Matrix box, Charybdis has taken a life of its own. It's no longer upgraded, as hosts have been physically misplaced or lost (imagine that) within the triangle.

- Even GODs feel fear in Charybdis.
- Kane

## WHY PRESERVE ANY OF IT?

The parts of the Matrix we have come to call the wild and the free are always in jeopardy. The megacorporations and their puppet nations are constantly working toward reining in, destroying, or converting all of these elements of the Matrix entirely. There are instabilities taking place in the Foundation-based worlds, and others will tell you the problems that arise there, so we know changes are coming. So why should any of what we've discussed be preserved? Opening the floor here.

- Not to sound like a broken record, but the wild Matrix serves a role not unlike our own physical world's biosphere. It is a direct expression of the mingling of the Deep Resonance with the noosphere. Life has taken root here, and if we allow it to be quashed, we've failed it as much as we've failed the rest of our world.
- Ecotope
- No business wants to set up new hosts without SOTA software, and the new Matrix continues to grow as old hosts are decommissioned or succumb to the pressures of the CCMA. There is no guarantee that the old boxes will still be around. The Freebooters are right. There's a stagnation in creativity and ingenuity when there is no

freedom of expression. This Matrix isn't perfect, but at least you have the freedom of choice to share and create. The new Matrix is about authoritarian control and conformity—not just at an individual level, but at all levels, even the corporate ones. Everyone is under the watchful eye of GOD whether they want it or not. Continuing down this path would probably lead to the digital dark ages, as free will and knowledge are buried in IC. I mean, we have GOD and demi-GODs, who knows when we'll start seeing mainframe inquisitions and Matrix witch hunters burning down remnants of the old Matrix in the name of CCMA.

- Sim-Eon
- If there is to remain any real sense of independent thought in our world, we have to work to preserve as much as we can without worshipping it either. If de La Mar or the next incarnation of her is allowed to overwrite or white-out these places, be they in the cracks, among the faults, or roaming the wild, then our ability to remain in the shadows will be lost. Even JackPoint remains a target of them.
- Bull
- Some will fight for the wild and the free. Will you?
- Eero
- Some have already died for the free. Do not allow those deaths to be in vain.
- SEARCH



# FIELD GUIDE TO HACKING

- I've invited a guest to provide a field guide to hacking. I figured you had already heard too much from our old curmudgeons, and getting a fresh voice might be nice. Besides, I am doing Slamm-O! a favor by letting him provide color commentary instead of writing this up. Either way, I have Lanyap, who's a decker out of New Orleans, up for this drop.
- Glitch
- Are you saying I can't write this up?
- Slamm-O!
- I didn't want to take you away from watching urban brawl ... errrr ... the kid.
- Glitch

Hey chummers, where y'at? Glitch reached out and asked if I would be willing to give y'all the quick and dirty for being effective running Matrix security, and breaking in where ya need to even if ya ain't wanted there. And he asked if I could keep it short. That's gonna be the hard part.

So here we are in 2082 and it's been a long time since Danielle de la Mar dropped the new Matrix in our laps back in 2075. I've seen the Matrix protocols continue to evolve as the old grid separations have streamlined. You don't really even notice when you move to a space owned by a government, corp, or even the wild Matrix. But don't fool yourself that you're in a safe space, as the underlying controlling entity is going to be helping GOD keep an eye on ya. Also, just because you're on this wide open and seamless Matrix, doesn't mean that ya can see everything, everywhere. The sheer volume of icons, personas, and hosts would overload all but some nova-hot hosts. But the underlying structure still has remnants of the old grids, which show up as having a proximity effect on seeing or finding what you are looking for.

Digging into nearby devices and spotting things on the Matrix is going to be easier if ya got a piece of hardware near your target. It can really help the hacker if some of the sneakier members of the crew can bring the device to a

location so that it's easier for me to get a view of what's around. So why not just bring everyone in? Well, I ain't sneaky, and the more people you put on-site, the bigger your footprint is—both for making mistakes and for getting spotted by all those drones and cameras. Just take my comm in for me so that I can check around. It's a lot easier when you know what or who you're looking for and they're sitting across the street at a popular soy chicken and biscuit food truck.

- I know teams that head in to do recon on a site, and once there, decide they don't want to break in a second time. The problem with that is missing out on the information you need to get out of there. Plan, divide, and conquer. I've run the decker's commlink into a facility before as part of my normal recon, which makes the run that much easier when you're ready to go in for real.
- Hard Exit

That brings me another team-based pet peeve I have when I'm working with a new group: the assumption that I'm the one who has to do all the searches or host-entering. It's almost like they forget that they have commlinks. Now, they won't be able to gain illegal access on their own, but they can search and gain information that can be critical on a time-sensitive hack. When I need to brute-force my way into a host, having a few teammates who can spot for me or find that paydata means that we're going to be more likely to get in and out without me doing repairs to my hardware or wetware. And it can go even further than that. If the team is able to get credentials and biometrics, it makes gaining elevated access even easier. Hacking is a team effort here, so slap on some goggles or trodes and help out.

Sorry to go on a bit there. Being the search engine for every team that comes along can get really old. Deckers are more than just search engines, camera editors, or hackers of hosts. Sure, we can do that, and I will talk about those things first, but we can also aid in targeting enemies on the battlefield, protect your gear, and execute quick-thinking distractions ranging from ejecting clips to controlling the lights in the room.

Before I dive into some of the deeper tech topics, let's hit another of my favorite things a team can do to help out: social engineering. From a decker's point of view, I'm gonna use a net-casting phishing attack, send out a blanket message to employees, or put up an ARO for soy-tacos if they fill out a survey. That's not necessarily going to get me the access I need or hit the target I'm looking for. Sometimes you need someone with a more social bent to cold-call the right person, or dare I say, seduce them or scare what you need out of them. My friend always called it the rubber-hose method of getting someone's credentials.

➤ While you might not have the time to execute a good long con on a mark to get access, finding points of leverage is going to be important. Maybe the mark has a special connection to their favorite barista on their way into work, or maybe they have family who suddenly need help. These can be used to put pressure on the mark, or they might be able to steal what you need for you without the mark ever knowing.

➤ Fianchetto

With a bunch of new physical hosts being brought online, I've been getting questions about whether they are easier to hack or if you can really tell the difference. First off, the new (or old) hosts use the exact same protocols and interface as Foundation-tech hosts brought online in 2075. The Foundation-tech hosts were supposed to be the way of the future, and honestly, they probably still are, but they bring new threats from the Foundation and Resonance realms. So the corps are going to do what they're good at: adapting to the changing circumstances by extending the life of some of older tech, and actually invest in researching new host hardware. Foundation-tech and pure hardware, or framework, hosts are going to work pretty much the same as each other. You won't find a Foundation in the framework hosts, which really helps prevent some Matrix threats bubbling up from the Null node. But in the ways that matter for gaining access, having a look around and executing commands are the same. And my technomancer friends have told me that their complex forms and sprites work just fine in framework hosts.

With that question outta the way, let's cover a little bit about hitting a host or device. We've talked about using social skills to gain credentials, but we really haven't talked about whether you want to use that with brute force or if you can exploit a user's credentials while going stealthy. First let's start with the basics: doing your research. Before you go and elevate privileges, you should figure out if there is a spider in the host. Undefended hosts are ripe for the picking if you want to use brute force, since it's going to take forever for a spider to log in and give you trouble. Having credentials from social engineering is going to give you the edge you're looking for on a brute-force attack.

When setting up something long-term, you'll be doing a backdoor entry by looking for unpatched software or holes in their defenses. Having credentials is going to give you the advantage hacking into the system, even when probing it. If you're in a hurry, then going in without probing first means you're relying on your stable of exploits and hoping one of them is going to work on this host. If ya gain a backdoor entry without probing, then it's giving the host an advantage over you. But you can negate that advantage by having credentials. Personally, I'll always tell a new runner to spend the time to probe for a weakness and gain entry to the



host that way. Let's be honest—most of the time you enter a host, it's going to be looping a camera or cleaning up the mess your team has made in an effort to keep heat down. This means not alerting the whole fragging host system that you brute-forced your way in.

The other big thing is that you may not even need access to the PAN or host to achieve your goals. Quickly spoofing a command can save your team's soyrizo. Couple that with Fork or some of the newer programs out there, and in a fight you can eject four magazines simultaneously. Know your tools and know what you can execute without spending time gaining elevated access to prevent your Overwatch Score from climbing to dangerous levels.

This leads me to programs, agents, sprites, and the pile of other tools you need to get your hands on. These utilities and cyberprograms are critical to your success. I've written a few programs that help me manage my suite of cyberprograms and smartframes so that I can swap them in and out with a single command. This flexibility lets me change gears and respond to the device or host quicker, which is important since time is your most precious asset in the Matrix. My typical setups are based on what I'm going after. I have one set-up specifically for attack and brute force. I have another for probing the system, and another for

dealing with files and devices. Finally, I have my base configuration of ASDF and programs to deal with devices and PANs in AR. What am I running? Sorry, but I'm not giving away my secret recipes.

- GOD is always looking for illegal cyberprograms being run, so you bring the heat faster if you're always running your hottest decking software. Having something you can swap out to keep the OS down has bought me the seconds I need before it all goes critical.
- Pistons

The other main job the team expects you to do is defend their devices. Nobody is happy when your street sam's skillwires get turned off mid-fight. Well, the other decker is probably happy, but who fraggin' cares about them? As soon as I can, I talk to the team and set up the controls to defend their gear and ware. And really, if you don't want people to mess with your stuff, you go wired or turn it off. Just like you can spoof commands to reboot someone's cybereyes, the same can be done to your team. Make sure that you prioritize your firewall unless ya really don't care about your team. Defending them is how y'all earn your pay.

This also means that running silent is going to depend on your ability to hide your PAN. And while riggers have figured out ways to hide their RCC, that will never be as good as having a ded-

icated decker protecting the swarm. Your biggest decision on a run is whether to run with a maxed Firewall or maxed Sleaze.

- Ha! I run loud and pro—<Whippet disconnected>
- Whippet
- Hey, what happened?
- Borderline
- My guess? Whippet was too easy to find or wasn't protecting their deck.
- /dev/grrl
- /dev/grrl!
- Glitch
- It wasn't me, I swear.
- /dev/grrl

Another thing that deckers don't normally think about is how many active personas are currently on a host or PAN. The more personas there are, the easier it is to hide, and the longer it will take for any Patrol IC or spider to come by and check whether you should have access. Too often, newbs think that hitting the host in the middle of the night is going to be easier, but when you are one of five personas logging in, that Patrol IC will be checking on ya frequently.

Finally, let's get the lowdown on some of the new techniques that are out there that can get you a leg up on the competition. Let's start with the slickest trend I've been seeing out of some of the novahot deckers. They're pulling moves from some old script-kiddies, who used to create scripts of known exploits. The big thing is that when you are in a rush to get into a host or device but don't want to set off every alarm on the way in, you don't always have a range of options. It's usually either plan ahead or crash the gates. With this script, you have a chance of sneaking in fast and silent. It's a slim chance, though. Also, some chummers of mine have been getting good at swapping out their programs faster in order to have the right loadout when trying to get into a host, and then quickly swapping to software to help crack files.

## GAME INFORMATION

### PHYSICAL LOCATION AND PERCEPTION

The Matrix is vast, although there is no real distance involved. In technical terms, the question is whether the persona (remember, it's only a program) is able to access and decipher the data space of other programs or the controllers for hardware

elements in a system. This information is processed by a person's Matrix interface. The Matrix protocols prioritize objects that are physically close and then virtually close to the device. In this way, distance is relative to the amount of time that it will take someone to sift through the enormous amount of data.

The following rules are used to expand the Matrix Perceptions rules (p. 178, SR6) for detecting devices on the Matrix. Gamemasters can pre-roll Willpower + Sleaze or buy hits for silent devices to set the Matrix Perception threshold. If a device is not hiding, the base threshold is 0. The base threshold has Matrix Perception threshold modifiers applied to them. If the threshold is met or exceeded, the device is spotted. The device will remain visible for  $12 + (\text{number of hits above threshold})$  hours, or until the target performs a successful Hide action, or until the device is rebooted or shut off—whichever comes first.

For example, Pointdexter is trying to find an opposing team in the plaza outside the Space Needle. The opposing team is running silent, and the gamemaster has rolled their defense roll and received 2 hits. Because the Seattle Center is busy with tons of devices, the threshold is increased by 8, but is reduced by 2 because Pointdexter has done their research and knows the specific device being used to protect the PAN. This means that Pointdexter needs to get 8 hits in order to spot the hidden team.

For another example, on a host, the Patrol IC attempts to ensure personas and devices have valid access. If the decker hacks the corporate host during midday, there are 1,500 employees currently logged in. This makes it more difficult for the Patrol IC to perceive the decker. The Patrol IC rolls Rating x 2 versus the decker's Willpower + Sleaze. If the decker is successful, the IC moves on and continues its patrol through the host. A single Patrol IC can run Matrix Perception twice per turn (it's a Major Action), meaning that the IC won't return to that specific area to check again for 750 turns, unless an alarm has been triggered or the decker moves to a new area. That means if you are on a host with thousands of personas and icons, it should take a single patrol IC a long time to actually track you down. If the decker had gone in at night when there were only twenty active personas, the Patrol IC would check their location every ten turns.

A skilled observer may gain additional information about a PAN or host if they exceed the threshold by 2 or more. The GM may provide the player with an estimate of the host or device rating, or information about the icons in a PAN.

What can be seen across the borders from a host to the wider Matrix or vice-versa? Seeing across the event horizon of a host is a limited channel. When looking from a host out to the wider Matrix, you are able to run Matrix searches, but otherwise cannot see other nearby devices that are not on the host.

When you're out in the Matrix and you observe a host, you can't see anything inside unless the host specifically broadcasts it—except for remote devices such as cameras and locks, which still require a Matrix Perception action to see. It's common for some hosts to broadcast the general layout of their internal structure, excluding secret or classified hosts. For instance, a shopping center might broadcast the presence of individual store hosts within the larger mall host. For locks, cameras, and other Matrix devices that have a physical presence, the observer must succeed at a Matrix Perception (2) test in order to spot them.

## MATRIX PERCEPTION THRESHOLD MODIFIERS

THRESHOLD	EFFECT
+0	Specific search area (single room, < 10 square meters)
+1	Small search area (small building, <250 square meters)
+2	Standard search area (city block)
+4	Moderate search area (section of a city)
+6	Large search area (city)
+8	Extreme search area (state)
0	Open (very few users or devices in the search area)
+1	Light (corporate facility off hours)
+2	Heavy (lots of Matrix users and devices, retail center)
+4	Congested (very crowded, corporate facility peak hours)
-1	Target is known and visible
-1	Looking for a general type of icon (looking for specific category items such as firearm or commlink)
-2	Looking for a specific type of icon; this does not stack with general type of icon above (examples include Ares Predator, Erika Elite commlink)
-4	Looking for a unique icon; this does not stack with specific or general icon modifiers (examples include stealth tags, commlink with a specific number, vehicle or drone with known identification)
0	Wireless device
+2	Wired device
+ (as normal rules)	Noise

## REMOTE MATRIX OBSERVATION

One of the useful things an infiltration specialist can do is sneak a Matrix device into a location in order to reduce the Matrix Perception thresholds. The only requirement of the device is that it has Data Processing, such as commlink or RCC. Other devices capable of running Matrix Perception are drones and vehicles. While you probably wouldn't park your Ford Americar in the middle of an Ares corporate lobby, you might use a small commlink or maybe an MCT Gnat.

## OWNERSHIP

When you buy a piece of electronic gear, the device's internal ID chip becomes registered to

your SIN, allowing you to interact with it in the Matrix. This registration hooks the internal ID of the device to your SIN. Changing ownership without the cooperation of the legitimate owner involves replacing the ID chip (that, or altering records on a series of hosts). Changing the ID chip on the device requires an Electronics (Hardware) + Logic (24, 1 Hour) Extended test. The device must remain connected to the Matrix, and if a glitch occurs, the police are notified of the attempted illegal change.

## TEAMWORK MAKES THE DREAM WORK

Teams can perform the Probe Matrix Action as a teamwork test. There is a single leader who can accept up to their skill rank as a dice pool bonus. If a backdoor is created, it's only usable by those who helped make it. Backdoor Entry, Brute Force, and the new Known Exploit Backdoor Entry also can take advantage of a teamwork test where the leader is able to gain access if they are successful. Teams entering into the device or host when using teamwork do not have a separate full persona. Instead, they appear as hitchhikers on the leader's persona.

## SOCIAL ENGINEERING AND PHISHING

Crafting a convincing confidence game against your targets requires both excellent social skills and a basic knowledge of hacking systems. Creating the survey, message, or tech communication requires a Con + Logic vs. Logic + Willpower Opposed test for a single target. For hitting a wider population with a survey or message blast, when runners make a Con + Logic test, they can apply net hits toward helping someone who wishes to call into a specific person or work through the phone system to gain credentials. When creating the communication, if the runner doing the crafting doesn't have a knowledge skill in hacking, a hacker-related area, or an active skill in Cracking, they are unable to spend Edge on their test.

If members of a team head off to collect credentials, they are able to use either Influence or Con to attempt to gain the requisite information from its owners. If the runners who are seducing, intimidating, or conning the mark don't have a knowledge skill in hacking, a hacker-related area, or an active skill in Cracking, they are unable to spend Edge on their test.

Teams looking for specific biometric markers have options, such as tailing the mark to a bar to collect saliva, voiceprint, fingerprints, or whatever is necessary. They can even go dumpster diving. The required biological markers necessary to gen-

erate the credentials can be determined by the GM for the particular system they are trying to access.

## MATRIX LEGWORK

Matrix Search is a powerful tool when used properly, but even then, there are limits to what it can do. When doing legwork, it is far easier and oftentimes faster to run a quick search protocol to pull off a quick precis on a subject than it is to work through your contacts. However, that precis will only include information that is on the public grid and available to anyone spending the time to look for it. That means you're going to pull information from their social media feeds, public records, and news articles. If you really want to know your target's secrets, you need to access one of the Data Havens (see p. 81), work your contacts, or hack the right network.

## AUGMENTED REALITY OBJECTS

Augmented reality objects (AROs) are useful tools. These are specific items that show up in your augmented reality view and provide useful information. For example, the Ares Deep Woods survival knife provides an ARO with local maps and your current GPS location. Another favorite is the firearm that provides ammo count in your HUD so you know when you need to change out the magazine. Other times it's just the advertisements that are outside the local Stuffer Shack or a garish piece of art that circles your yerzed-out ride.

An ARO is made up of two components. The first thing you need is a Matrix device to attach the program to. This could be a firearm, a commlink, a security tag, or other device. The second thing you need to do is create that program that you attach to the Matrix device. Creating the program requires an Electronics (Software) + Logic (4, 1 hour) Extended test for static elements. The threshold for animated art or graffiti increases by 4. If you are creating software that reads from systems or has more complicated functions, the threshold starts at 12, but can be higher based on the degree of difficulty set by the gamemaster.

Defacing or corrupting an ARO requires that you first gain access to the Matrix device that the ARO is attached to through hacking, and then performing an Electronics (Software) + Logic Extended test at double the threshold used to create it. Deleting an ARO is often a simpler task that requires either destroying the attached device or gaining access to the device and successfully performing an Edit File Matrix Action to delete the object.

## HOT-SIM, COLD-SIM, OR AR?

The simplest reason for a decker to select hot-sim over cold-sim or AR is the additional Initiative

Dice and the associated extra Minor Actions. But that isn't the only reason to do so. Running at a faster speed with less between you and the raw Matrix signal gives you a meaningful edge over your target. When you use a Matrix action where the target is at a slower interface, you gain an Edge that must be used on that action or it disappears. If you are using hot-sim while they are using AR, you gain 2 Edge that must be spent on the current action. The reverse is also true. If the opponent is running in cold-sim while you are in AR, they gain a point of Edge they must use on that Matrix action.

## MATRIX ACTIONS

### CALIBRATION

(LEGAL) CRACKING + LOGIC (MAJOR)

USER/ADMIN

You lend your team your own processing power and boost their speed. You can increase the current Initiative Score of you and your team by 1 for every 2 hits. The total amount of Initiative Score increase granted to a persona cannot be greater than your Data Processing, and only one Calibration effect can be active at a time. The Initiative Score then decreases by 1 each Combat Turn until it returns to the normal initiative score. This bonus applies to anyone with an AR feed that shares the decker's PAN. The hacker can only share their feed with a number of users equal to or less than their device rating.

### DELAYED COMMAND

(ILLEGAL) CRACKING + LOGIC VS. DATA PROCESSING OR PILOT + FIREWALL (MAJOR)

OUTSIDER/USER/ADMIN

You send a payload to a device that contains a command and time delay that the target perceives as coming from its owner. The device then automatically attempts to perform the action when the time delay is passed. On success, the command will execute even if the host turns off their wireless functionality. If the device is rebooted before the command executes, the delayed command is lost.

### DENIAL OF SERVICE

(ILLEGAL) ELECTRONICS + LOGIC VS. WILLPOWER + FIREWALL (MAJOR)

OUTSIDER

Wireless devices become nearly unusable when you pollute their data streams with noise. A decker or technomancer may target a wirelessly active device or persona. Make an Electronics + Logic vs. Willpower + Firewall Opposed test and apply the number of net hits x 2 as a negative dice pool modifier to all tests made with that device until the end of the next combat round.

## DEFINITIONS OF MATRIX TERMS

**Base:** This is an alternate term used for the basement of a framework host.

**Basement:** Operating files, ownership structure, and archive of a framework host.

**Brick:** Slang term for an optical stack mainframe.

**Cyberterminal:** Desktop computer combining the functions of a cyberdeck and cyberjack. These units are not portable.

**Dataterm:** Common home computer, home entertainment system, and communication device. These units are not portable.

**Deep Foundation:** The Foundation layer of the Matrix itself, connecting all host Foundations.

**Foundation:** Substructure of a Foundation host that runs the host's operating code. This layer sits between the Resonance Realms and hosts.

**Foundation-Tech:** The technology used to create and maintain Foundation hosts.

**Framework:** A host generated by physical processors instead of a Foundation. These hosts consist of optical stack mainframes. Sometimes called legacy hosts.

**Mixed User Groups (MUGs):** Acronym to describe most Matrix groups in existence.

**New Matrix:** Shorthand for changes made to the Matrix in 2075 by Danielle de la Mar (not personally, but under her direction). At this point, it's not really new, but surly old deckers always have a chip on their shoulder.

**New Matrix Protocols:** See New Matrix.

**Noosphere:** An energy field generated by information transmission and storage. This is based on the universal information theory.

**Nous-Particle Field Mechanics:** The central component of universal information theory. This refers to how data and information are connected through hosts, the mind, and the Resonance Realms.

**LAN:** Local area network. Refers to the geographic area where devices can be slaved to a small Framework host (Scale 1 or 2).

**Optical Stack Mainframe:** The standard high-power computing device for generating hosts.

**PAN:** Personal area network. This is all the devices that are linked with your main device, usually either a commlink or cyberjack.

**Paradigm:** This is the term for the Foundation where the environment including all Foundation avatars and objects are forced to match some look and feel. This is similar to a host's sculpting, except way more invasive.

**Quad, Cube, and Wall:** These are pre-networked packages of 4, 16, or 64 optical stack mainframes.

**Resonance Realms:** The generally unknown structures underpinning the Deep Foundation. Technomancers know about it. Go ask them.

**Scaffolding:** The system that runs the sculpting of a host. This is controlled by the scaffolding control node in the Foundation.

**Sculpting:** The programming that defines the user interface of a host. Like the paradigm, only it doesn't force you to wear some silly outfit or suddenly transform into a car.

**Shell:** The host envelope before any sculpting is performed. It's a host, but just barely.

**Transfer Circuit:** The code used by CC licensed corporations to create Foundation host shells. This somehow magically grows a host out of the Foundation. I am sure de la Mar knows more, but so far she's being tight-lipped about it publicly.

**Universal Information Theory:** Also known as UniTy, it is an attempt at a unified theory explaining Foundations, technomancer abilities, the Resonance Realms, and an assortment of other Matrix phenomena. Much of this research centers around the Noosphere.

**Variance:** A term used for the difference between what a paradigm expects and the runners' actions. This is bad because when the variance gets high, then the entire host Foundation is going to be out to get you.

**WAN:** Wide area network. Used to describe the geographic area where devices can be slaved to a distributed Framework host (scale 3 to scale 6) and is basically a network of overlapping LANs.

## DEVICE LOCK

(ILLEGAL) CRACKING + LOGIC VS. WILLPOWER + FIREWALL (MAJOR)

OUTSIDER/USER/ADMIN

Sometimes the easiest way to get away from a hack is to just turn off your wireless. The attack targets a device, and on success prevents the device from going offline for a number of rounds equal to net hits. Once the number of rounds has expired, the decker or technomancer can spend a Minor Action to extend the device lock by a round. This extension can only be done once.

## GARBAGE IN/GARBAGE OUT

(ILLEGAL) CRACKING + LOGIC VS. WILLPOWER + FIREWALL (MAJOR)

USER/ADMIN

This command allows the decker to “cross the wires” of a single device, confusing some of the inputs and outputs of the system. A single input can be rerouted to execute a different command. For example, a commlink could have its call function altered to automatically delete the contact information of the person that its user intended to call. A camera could switch the rewind function with

that of the fast forward function. The command can't override the basic safety features of the device or system, and the gamemaster has final say in what can be accomplished with the command.

## KNOWN EXPLOIT BACKDOOR ENTRY

(ILLEGAL) CRACKING + LOGIC VS. WILLPOWER + FIREWALL OR FIREWALL X 2 (MAJOR)

### OUTSIDER

This action is linked to the Sleaze Attribute.

You attempt to run through a set of previously known exploits in order to gain illicit entry into a host, device, or other Matrix area. This action does not require a previously successful Probe, but against a fully patched host is going to be less likely to be successful. Runners performing this action are unable to gain or spend Edge. In addition, the host or device gains a point of Edge that is either spent immediately on that action or disappears. If the test is successful, you gain Admin access to the target, and it does not count as illegal Admin access (though taking illegal Matrix Actions will still increase your Overwatch Score). Failing this test does not immediately set off alarms, but the character's OS increases as normal.

## MASQUERADE

(ILLEGAL) CRACKING + LOGIC  
VS. INTUITION + DATA PROCESSING (MAJOR)

### OUTSIDER

This action allows a hacker to impersonate a persona on the Matrix. Since persona data is updated in real time, this action is difficult to execute successfully. For every net hit scored on a Cracking + Logic vs. Data Processing + Intuition, you convince Matrix systems and casual observers that you are the target for one minute. This can be used to impersonate someone online, intercept their calls, use their social media, rummage through their email history, or otherwise create mischief, but processes like changing device owners or performing major financial actions (like bank transfers) have too many double-checks for Masquerade to work. If the persona you're impersonating logs off, the disguise drops. While masquerading, you are never considered the owner with regard to any of the impersonated persona's devices.

## METAHUMAN IN THE MIDDLE

(ILLEGAL) CRACKING + LOGIC  
VS. INTUITION + DATA PROCESSING (MAJOR)

### OUTSIDER

This command inserts you in between any calls or Matrix actions that go into or out of a device.

On a successful test, all communications bounce through your device for minutes equal to net hits.

## MODIFY ICON

(ILLEGAL) ELECTRONICS + LOGIC  
VS. INTUITION + DATA PROCESSING OR DATA  
PROCESSING + SLEAZE (MAJOR)

### ADMIN

Sometimes you want your Ares Predator VI's Matrix icon to look a little less threatening. This action allows a hacker to change a Matrix icon to look like a different icon. Each time your icon is scanned, you need to make an Electronics + Logic vs. the scanning device's Data Processing + Sleaze or device operator's Intuition + Data Processing to not be detected.

## POPUP

(ILLEGAL) CRACKING + LOGIC  
VS. INTUITION + DATA PROCESSING (MAJOR)

### OUTSIDER

It's so irritating when your entire display or view is completely blocked by popup AROs or windows that prevent you from doing what you intended. The decker or technomancer attempts a Cracking + Logic versus Intuition + Data Processing Opposed test against a target device or persona. The targeted device or persona is unable to spend Edge for a number of combat rounds equal to net hits.

## SQUELCH

(ILLEGAL) ELECTRONICS + LOGIC VS. INTUITION +  
SLEAZE OR 2 X SLEAZE (MINOR)

### OUTSIDER

A successful Squelch test prevents the target device from calling or sending messages for a number of minutes equal to the net hits scored.

## SUBVERT INFRASTRUCTURE

(ILLEGAL) ELECTRONICS + LOGIC  
VS. WILLPOWER + FIREWALL (MAJOR)

### ADMIN

This action allows a decker or technomancer to slightly alter the operation of multiple physical devices so they respond to the hacker's commands. If the hacker has at least Admin access on the host, a successful Electronics + Intuition vs. Intuition + Firewall or 2 x Firewall test allows them to control one group of similar simple devices (traffic lights, vending machines, home appliances, desk lamps, etc., at gamemaster discretion) slaved to that host for every net hit. This action cannot be used to make an attack. The hacker can sustain

controlling these devices as a Major Action each combat round.

## THREAT ANALYSIS

(LEGAL) ELECTRONICS + LOGIC (MAJOR)

OUTSIDER/USER/ADMIN

Instead of attacking, the hacker engages threat-highlighting software, giving allies an edge to their defenses. Threat Analysis allows the hacker to give a Defense test bonus to all allies with access to an AR feed. The number of bonus dice equals the number of hits on an Electronics + Logic test. This bonus lasts until the beginning of the hacker's next turn. This bonus applies to anyone with an AR feed that shares the decker's PAN. The hacker can only share their feed with a number of users equal to or less than their Data Processing.

## VIRTUAL AIM

(LEGAL) (MINOR)

OUTSIDER

A decker or technomancer gains +1 dice pool bonus with the use of this action from studying their target's defenses. The action can only be taken once per combat round, and the bonus is carried over to the next round if unused until they fail to use a Virtual Aim action on that round or if they attack. The maximum dice pool bonus from the use of this action equals the character's Willpower. The bonus can be applied to any Matrix attack action such as Data Spike, Tarpit, or Resonance Spike.

## WATCHDOG

(ILLEGAL) CRACKING + LOGIC VS. WILLPOWER + FIREWALL (MINOR)

USER/ADMIN

Target must be a persona or device. The number of net hits is how many combat rounds the program stays active. If successful, the player can see what the target is doing on their devices. The user is now aware of the Matrix Actions the target is going to use before they use them, and they may attempt to stop them. Watchdog allows the hacker to use Threat Analysis as a minor action if the attack originates from the target.

## EDGE ACTIONS

### BATCH EXECUTION (1 EDGE)

This allows the decker to switch out all the programs actively running on their deck. Just use the Edge action and you can quickly reduce your OS accrual or go in ready to wreck some drek.

### INTERVENE (2 EDGE)

This allows the hacker to give an immediate defense bonus to the owner of a device slaved to the hacker's PAN. This action can be taken only if the device making the attack is wirelessly enabled and the hacker is aware of it. Roll your Electronics + Logic, adding the number of hits to your ally's dice pool. This bonus applies only to the current Defense test. It cannot be carried over to any other turn or action.

### PAINT TARGET (1 EDGE)

Paints a target in the team's AR, allowing them to know where the target is located. Removes Blinded status coming from Cover or Smoke grenades.

## MOVIE MATRIX MAGIC!

These optional rules and moves are at your disposal as a GM if you want to add in a little bit of cinematic flair to the game. While *Shadowrun* can impart an over-the-top, action-oriented experience, there is always a chance to turn it up just one more notch.

## COMPUTER VIRUS

(ILLEGAL) ELECTRONICS + LOGIC VS. DATA PROCESSING + FIREWALL (MAJOR)

OUTSIDER/USER/ADMIN

The aliens are going to destroy the Earth, and the only way we can successfully stop them is by loading this computer virus into their system. The runner who deploys this attack against a device or host prevents the target from taking any actions for minutes equal to net hits on the test. This can be used to prevent the host from recording footage from cameras or for locking a building as none of the security locks will disengage.

## ENHANCE

(LEGAL) ELECTRONICS + LOGIC (MINOR)

USER/ADMIN

Sometimes the trid footage is unclear or maybe the audio is coming through garbled, but a quick shot of Enhance, and suddenly everything becomes clear! This Matrix action can be taken on the same turn or the turn immediately after performing a Matrix Perception test. Hits on the Enhance Matrix action are added to the previous Matrix Perception action.

## IC SLICER

(ILLEGAL) CRACKING + LOGIC VS. DATA PROCESSING + FIREWALL (MAJOR)

USER/ADMIN

You are a master of taking down IC guarding the data that you are after and causing damage to

any IC you target. Your attack has a Damage Value equal to your Attack attribute with one additional box of damage per net hit.

This action is linked to the Attack attribute.

## KEYBOARD COMMANDO

(ILLEGAL) CRACKING + LOGIC  
VS. FIREWALL X 2 (MAJOR)

### OUTSIDER

You're the fastest hacker on the planet, and there isn't an IC program out there that can catch you in the act. You can slice through a network's defense so fast that you can hack your way in and out in a single turn. With a single net hit, you gain User access; with four additional net hits, you gain Admin access. With each additional net hit beyond that, you can manipulate one device or file. You immediately exit the network after executing this action.

## PASSWORD SEQUENCER

(ILLEGAL) CRACKING + LOGIC  
VS SLEAZE + FIREWALL (MINOR)

### OUTSIDER

The host or device has a complex password that only the toughest number crunchers can handle. On each successful test, your decking process is able to sequence the next element in the password. The number of elements in the password is equal to the host's rating.

## SKULL AND CROSSBONES ATTACK

(ILLEGAL) CRACKING + LOGIC  
VS. INTUITION + FIREWALL (MAJOR)

### OUTSIDER/USER/ADMIN

You are a master of preventing your opposition from taking actions. On a successful test, the opposition's screen or view is completely occluded by a giant animated ASCII skull and crossbones. The target cannot take any action until they have successfully completed an Electronics + Logic test where the threshold is equal to the number of net hits from the Skull and Crossbones Attack action.

## WE'RE IN!

(ILLEGAL) ELECTRONICS + CHARISMA  
VS. DATA PROCESSING + SLEAZE (MAJOR)

### USER/ADMIN

Upon successfully hacking into a host or device, a triumphant yell tells your team that you are the best fragging decker on the planet. On success, reset your Edge pool back to your Edge rating. If you are currently over your Edge rating, then you do not reset.



# GADGETS & GIZMOS

## CYBERHACKS

“Cyberhack” began as a derisive term used by traditionalist deckers to demean the rough tech that began to emerge on the black market (originally dubbed “cyberjack terminals”), but it’s been taken up as a badge of honor by hackers who see it as a way to take back the Matrix without using the tools of the authorities who seek to dominate it. The name stuck.

For those unwilling to undergo the extensive surgery needed for a cyberjack augmentation, an external version has been devised. These bulky devices only require the user to have a datajack with which to interface. They are more limited than the cyberware equivalent, but they also don’t require intrusive surgery.

Cyberhacks are designed to take the place of an implanted cyberjack. They interface with an implanted datajack and cyberdeck to provide the additional processing power required for a decker’s Data Processing and Firewall attributes. A

cyberhack requires a wired connection to an implanted datajack in order to function. In this way, a cyberhack functions mostly like the implanted version. However, a cyberhack does not provide any Matrix initiative bonus, and the Matrix Edge actions that require an implanted cyberjack or Resonance attribute are not available. Any qualities that improve the effectiveness of a cyberjack do not apply to cyberhacks unless they explicitly state otherwise. When using a cyberhack, you may not switch your Data Processing and Firewall attributes. They can be enhanced, but not changed with other attributes.

Furthermore, cyberhacks are bulky pieces of hardware. So far, no one has managed to make one smaller than an RCC, which makes them difficult to conceal. This has led to some creativity in disguising them as a legal electronic device, like a keytar.

There are some advantages to using a cyberhack, other than saving on Essence loss. The same challenges that make them less capable of faster

data processing make them easier to secure against intrusion, resulting in a solid firewall. Due to the less intrusive hardware, a hacker using a cyberhack always takes Biofeedback damage as Stun damage—even when using hot sim VR.

It's worth noting that while some megacorporations originally developed technology similar to cyberhacks, these projects have been quietly shut down. The megacorporations don't want tech that makes hacking the Matrix more accessible on the open market, and so they pretend it's impossible. All cyberhacks are black-market items, created without the official sanction of any legitimate business. Some of these are small deckmeister shops, but larger-scale illegal tech manufacturing has become a lucrative enough business that some otherwise-legitimate corporate operations are adapting their business model to take advantage of the demand. Some even have brand models, such as the Yakuza Katana, Erika Hoffmeister, Mafia Consiglieri, Krime Slasher, McHugh's SupersizeMe, and Taco Temple Macuahuitl. Though legit corporations pretend these represent trademark infringement by criminal operations (sometimes they're even telling the truth), organized crime syndicates have found cyberhack and custom cyberdeck component production to be a profitable revenue stream.

## CYBERHACKS

RATING	DATA PROCESSING	FIREWALL	AVAIL	COST
1	1	3	3(I)	20,000¥
2	2	4	4(I)	40,000¥
3	3	5	5(I)	60,000¥
4	3	6	6(I)	80,000¥

## CUSTOM CYBERDECKS

Because the manufacture of cyberdecks is so heavily restricted and monitored by the megacorps, it's taken a few years for unauthorized designs to start appearing. It turns out that with the exception of some expensive and rare materials, there's nothing keeping such technology from being built in small shops. The secrets of designing, programming, and building cyberdecks are closely guarded, but people are inventive and resourceful. If you know where to look, you can find plans on the Matrix for homemade cyberdeck components that can be constructed using the 3D printers and chip burners commonly included in any serious electronics hardware tool shop. Knowing where to look for these plans can be tricky. The megacorporations hire their own deckers and technomancers to locate and delete plans like this wherever they

can be found. Data havens and pop-up hacker markets always seem to appear more often than they can be shut down, so the corps seem to be losing this battle.

Because these cyberdeck components are engineered using unofficial means, they tend to have some unpredictable effects, and their Overwatch Score builds up more quickly. When a hacker using a custom cyberdeck takes any Matrix action, replace one die with a wild die. If the Matrix action contributes to overwatch, additionally increase the Overwatch Score by the result of the wild die.

The hardware that provides a custom cyberdeck's Attack and Sleaze attributes consists of specific dedicated components, rather than the more flexible tech used in officially manufactured cyberdecks. When using a custom cyberdeck, you may not rotate out your Attack and Sleaze attributes.

In all other ways, custom cyberdecks function exactly the same as their factory-made equivalents. They must be connected to a cyberjack (or cyberhack) in order to function. Because they are scratch-built, they tend to be installed in a variety of different cases in order to disguise their nature. Many are designed to look like an innocuous commlink, but the casemod possibilities are endless, and the chosen aesthetic is often as important to a decker as the appearance of their persona in the Matrix.

Custom cyberdecks are not available as hardware augmentations.

## ACQUIRING A CUSTOM CYBERDECK

Many deckers purchase their custom decks from a contact, such as a deckmeister, who takes special orders. Individual components are printed and burned on demand, though such dealers often keep some of the more popular parts on hand. The nuyen costs for the custom cyberdeck components assume that you are purchasing them from a contact. In addition to any other availability restrictions, you must have a contact with the Matrix type. The max availability you can acquire is the total of your contact's Connection and Loyalty ratings. At character creation, you are also limited to availability 6 for illegal items. Almost everything involving a custom cyberdeck is illegal.

## BUILDING YOUR OWN

Of course, this recent subversive advancement in cyberdeck technology has given rise to a new crop of DIY deckers who make their own gear. To do this, you'll need a hardware tool shop, an Electronics skill, and access to the plans and source code for the component. You can save a lot of nuyen this way, but it's going to cost you time and effort.



In game terms, this means that you can spend Karma instead of nuyen to purchase and upgrade your cyberdeck. First you must acquire the plans and source code, which requires an extended Matrix Search test with a threshold equal to the component's availability and an interval of one hour. Printing, cooking, and installing the component requires an extended Electronics (Hardware) + Logic test with an interval of one hour and a threshold equal to the component's rating (or 4, if it has no rating). If successful, each Karma you spend covers 4,000 nuyen of the component's cost. Unspent nuyen from this can be banked for future upgrades or added to any special pool of parts for qualities or repairs.

Because of the DIY nature of these cyberdecks, they are incredibly modular. Instead of printing off a cyberdeck, you need to print and burn each piece, and put them together to build your custom deck.

You can also create your own cyberhack in this way, which counts as a single component for the purpose of the extended tests to acquire the source code and build the device. The Karma cost is 1 per 4,000 of the cyberhack's nuyen cost.

All custom cyberdeck components are incompatible with legally manufactured cyberdecks.

## GETTING DOWN TO WORK

When designing a custom cyberdeck, the following components are required:

### CORE

The core represents a tangled cluster of interconnected processor and data storage chips that do all the hard work and tie all of a cyberdeck's components together. This component provides the cyberdeck's Device Rating. The rating of an individual Attack or Sleaze module cannot be higher than the deck's Device Rating x 2.

### CORE SLOTS

A cyberdeck has a number of available core slots equal to its Device Rating x 3. Each custom component takes up one or more core slots, but so do any connected devices. Note how many core slots are taken up by all of your cyberdeck's components, because this reduces how many wireless (and wired) devices you can connect to your deck's PAN.

### ATTACK MODULE

#### CORE SLOTS: RATING/3 (ROUND UP)

The attack module is a suite of processors and chips loaded with all the latest—as well as tried-

and-true—hardware tools for cracking codes, overwhelming firewalls, and generating obscene amounts of false data. This component provides an Attack attribute equal to its rating.

## SLEAZE MODULE

### CORE SLOTS: RATING/3 (ROUND UP)

The sleaze module is a kit of chips prepped with password libraries, firewall exploits, and stealth tools. This component provides a Sleaze attribute equal to its rating.

## CASES

Every cyberhack and cyberdeck needs a case to house and protect its internal components. None of these things are legal, and so most are designed to disguise their nature. Some deckers prefer to make their cyberdeck as compact as possible, while others hide them in plain sight using a case design from an RCC, a commlink, or a more creative option.

And then there are the gonzo case mods. Keytars are in high fashion for this purpose, but some go even further to add weapons and other devices. Usually the larger cases are designed to house both a cyberhack and a cyberdeck, while deckers who have the cyberjack augmentation can get away with only having to carry around the smaller device.

## CASE CAPACITY

A case contains all of the cyberdeck or cyberhack's components, which do not use up capacity. Also incorporated into the case automatically are the power supply system, a simple touchscreen and keypad manual interface, and two universal dataports (one of which must be used to connect the device to a datajack, cyberjack, cyberhack, or cyberdeck). Any further case modifications take up capacity. The type of case determines the available capacity for modifications. The most common case modification adds additional universal dataports, which allow for more direct connections.

### BREADBOX CASE

A breadbox case is a slang term for a cyberdeck or cyberhack built with cheaper or out-of-date components, wired and hacked together to make them functional using a quantity-over-quality approach. A breadbox case cyberdeck or cyberhack is not portable. It takes up at least as much space as an old desktop computer, but most are sprawling affairs of devices that take up a whole room. It takes an hour to set up or break down a breadbox unit, and it's utterly useless when not properly set up. The advantage of a breadbox case is that the nuyen cost for any of the cyberhack and cyberdeck hardware is reduced by fifty percent. You also

have effectively unlimited capacity for case modifications. This option can also apply to home commlink systems (commonly called dataterms), and megacorporations often use cyberdecks installed into larger terminals to make them less vulnerable to theft (commonly called cyberterms).

### BRIEFCASE

A large briefcase-sized case can sometimes blend in, but it also stands out and is not easily concealed. The most common reason to go with this type of case is that it can comfortably house both a cyberhack and a cyberdeck. In a business environment, they easily go without notice with a successful Influence (Etiquette) + Charisma (2) test. You gain an Edge on this test if you are dressed to fit the role. In other environments, most people will become curious about what's in the case. Most people will let it go, but guards, gangers, and runners are bound to be suspicious.

If the briefcase houses only a cyberdeck, its available capacity is 12.

**Cyberhacks:** This type of case can house a cyberhack, with room for a cyberdeck and 6 capacity.

### COMMLINK CASE

The standard case is commonly repurposed from a discarded commlink, though they're easy enough to print off and put together if none is on hand. This case option has become the standard for most custom cyberdecks. It's cheap, easy to acquire, has a reasonable capacity, and is the simplest way to disguise them. A standard case has a capacity of 4. Unless a decker draws attention through suspicious behavior or illegal Matrix actions, not even the most alert security guard will bat an eye at one of these. A commlink case is typically small enough to fit in your pocket, or even a cyberlimb smuggling compartment.

**Cyberhacks:** This type of case is much too small to house a cyberhack.

### GONZO CASE

Gonzo cases are bizarre custom jobs, usually an unwise hacked-together combination of devices such as a flamethrower or combat axe. You can effectively build a cyberhack or cyberdeck case into, or rather more onto, pretty much anything you like at the expense of capacity and concealability. A cyberdeck case can be worked into nearly any device roughly the size of a heavy pistol or larger. A cyberhack is big and only works with bulky objects such as two-handed weapons. Whatever the case, you cannot gain or spend Edge on a Stealth or Con test to conceal your illicit tech, and don't even bother trying to pass one off as anything remotely legal.

Whether or not this case is for a cyberhack, cyberdeck, or cyberhack/cyberdeck combo, the avail-

able capacity is 2. This capacity is almost always allocated for the gonzo hardening case mod.

### KEYTAR CASE

Keytars are equal parts dorky and badass, which makes them the perfect fit for deckers with attitude. These cases are designed to house both a cyberhack and a cyberdeck, but more importantly include a musical keyboard, synthesizer, and high-definition speaker system. These things have been around since before the Awakening and were a popular inspiration for some of the first portable cyberdecks. *Plus ça change, eh, chummer?*

A keytar case just for a cyberdeck has an available capacity of 10.

**Cyberhacks:** This type of case was meant for a cyberhack/cyberdeck combo. Available capacity is 4, but if you remove the synthesizer components, it goes up to 8. But seriously, why would you do that?

### RCC CASE

Using a case from an RCC has some of the advantages of a commlink case, but they tend to be bulkier. You can sling one under your jacket or carry it in a satchel, but they don't exactly fit in your pocket like a commlink can. That said, the extra bulk provides a lot of capacity for accessories and case mods. However, people will think you have drones available. If security becomes suspicious, you may have to pass a Con + Charisma test opposed by Judge Intentions to pass it off as harmless. An RCC case has a capacity of 8. However, if you would like the case to include a functional RCC (because drones are fun, too!), the capacity is reduced to 2.

**Cyberhacks:** This type of case can barely fit a cyberhack. If you use an RCC case to house a cyberhack instead, it will have no room for a functional RCC or cyberdeck and no capacity for case mods.

### WEARABLE CASE

Instead of having your cyberdeck components all together within a compact case, you can break them up into a number of smaller modules that are designed to connect via data cables. This has led to the innovation of designing clothing and armor with cables, connection ports, and shielded pockets for components. A cyberdeck can be designed to slot into a special armor modification with the drawback of zero additional capacity. The benefit is that unless you are thoroughly searched, your illegal cyberdeck gains complete concealment. Even on sensor scans, this does not stand out as unusual or suspicious technology, usually mistaken for commonly worn biomonitor systems. This case requires specially modified

clothing or armor. In the case of clothing, add the nuyen cost to any outfit. If you'd like to have it built into your armor, it takes up 1 capacity (armor capacity).

**Cyberhacks:** This case type is not available for cyberhacks. A wearable cyberhack is a cyberhack stuffed into a backpack.

## CASE MODIFICATIONS

Case modifications are completely optional, but what else are you going to use that capacity for?

### ADDITIONAL JACKS

Each additional universal dataport takes up 1 capacity.

### BUILT-IN ACCESSORY

If you want a built-in accessory such as a trid projector, printer, sensor, or other gadget, the capacity required is its rating or 2, whichever is higher. If the item has a listed capacity requirement, such as for cyberlimb or armor mods, that applies instead. Note that many of these devices can still be connected and used by your device wirelessly or via direct connection, but built-in devices have the advantage of not counting against the device limit or core slots of a cyberdeck.

### DART LAUNCHER

A concealed dart-launcher can be installed in a case for only one capacity per shot. This launcher can be loaded with a normal injection dart to deliver a drug or toxin, a taser dart that deals 4S(e) damage, or even a data tap (see arrow tap below). Using the dart launcher requires the Exotic Weapons skill and is covered under the same specialization as other dart launchers. Attack Rating: 8/8/-/-/-/-

### GONZO HARDENING

This modification is usually only used for gonzo cases incorporating weapons and cyberhacks together. It has the same effect as the hardening modification, with the addition that you can freely make melee attacks and blocks using your case with no danger of damage to internal electronics. This takes up 2 capacity.

### HARDENING

Your hardware is well-protected from physical harm. Unless your hardware is specifically targeted by an attack or used as a melee weapon, you never have to worry about it taking Physical damage, even from explosions or extreme falls. This modification takes up 1 capacity.

### SHOCK SHIELD

With a Minor Action, or under pre-programmed conditions, your case will discharge a powerful electric shock affecting anything touching it. When this occurs, your system will shut down abruptly, causing dumpshock if you are jacked in (and worse if you are touching the device). Internal shielding combined with the auto shutdown prevents damage to internal electronics, and the outer shielding of your data cable prevents transmission of the shock back to your headware or other connected devices. Anyone or anything touching the outer case will take 6S electrical damage. More powerful systems with larger capacitors are capable of dealing a stronger shock. The basic system takes up 4 capacity. For each additional 1 capacity allocated to this system, increase the damage by +2S(e), to a maximum of 14S(e). After each use, the system must be recharged, which requires one hour via wireless Matrix recharge or one minute via power cable.

## OPTIONAL COMPONENTS

### INTERNAL PROGRAM SLOT

#### CORE SLOTS: 1 EACH

A program slot is a data storage device and processor chip that augments a cyberdeck with the ability to run a cyberprogram. A custom cyberdeck starts with a number of program slots equal to its device rating, but you can add more at the expense of core slots. Each additional internal program slot takes up one CPU port.

### DEDICATED PROGRAM SLOT

#### CORE SLOTS: 0.5 EACH

A dedicated program slot is designed to store and run a specific cyberprogram, which can't be altered without changing out the components. A dedicated program slot runs more efficiently and takes up less space, but you can't use it to run any cyberprograms other than the one it's designed for. These are most often used for Baby Monitor or Agent software.

### RESPONSE INCREASE

#### CORE SLOTS: RATING X 2 (MAX RATING 3)

A response increase module includes additional processor chips, along with the cooling systems required to prevent your deck from combusting. They get hot, but they boost your speed on the Matrix, and sometimes that's all you need.

Each rating increases your initiative dice in VR mode. There are some limitations and drawbacks. These only function when used with a cyberhack and are incompatible with the cyberjack augmen-

tation. Also, these things run hot. Your deck takes one box of Matrix damage for every 1 rolled on any of your initiative dice while it is active. You can turn it on or off with a Minor Action, which will cause it to activate or deactivate at the start of the next combat round.

### REALITY FILTER

#### CORE SLOTS: 2

A reality filter is designed to translate all Matrix iconography to fit a programmed aesthetic. In addition to allowing you to make the Matrix look like the fantasy world of your choosing, you're able to set up key iconography that allows you to more quickly process and respond to what you're seeing. If you have an active reality filter and are using a cyberhack, you may use the Matrix Edge actions that normally require an implanted cyberjack. Other possible effects of this tech are unlocked through positive and negative qualities.

### TURBO-CHARGER

#### CORE SLOTS: 1

Custom deckmeisters have the freedom to experiment without the restrictions of manufacturer specifications or safety regulations, and a number of designs have popped up that allow for significant short-term increases to a cyberdeck's capabilities at the expense of potentially melting the whole thing. Deckers crazy enough to strap these mods onto their deck are either very careful to use them sparingly or willing to set themselves on fire. You may activate or deactivate the turbo-charger with a Minor Action. Activating and deactivating the turbo-charger takes effect immediately. While active, add a number of wild dice to your dice pool equal to the turbo-charger's rating on any Matrix Actions. Your cyberdeck takes one box of Matrix damage every time any of the wild dice roll a 1, 5, or 6.

### ACCESSORIES

#### EXTERNAL PROGRAM CARRIER

An external program carrier provides the capability to run one cyberprogram but is not powerful enough to run an agent (see agent box below).

External program carriers can wirelessly connect to any cyberdeck, but most hackers prefer to connect them directly via data cable.

### CYBERJACK BOOSTERS

If you aren't squeamish about getting a cyberjack installed in your head, why not take it even further? Hackers have designed devices that are capable of enhancing a cyberjack's capabilities. They augment the power of a cyberjack augmen-

## Critical Cyberdeck Components

COMPONENT	RATING	CORE SLOTS	AVAIL	COST
Core	1-4	—	Rating(I)	Rating x 5,000¥
Core	5	—	5(I)	50,000¥
Core	6	—	6(I)	150,000¥
Attack Module	1-4	Rating/3	Rating(I)	Rating x 2,000¥
Attack Module	5-8	Rating/3	Rating(I)	Rating x 5,000¥
Attack Module	9	3	9(I)	90,000¥
Sleaze Module	1-4	Rating/3	Rating(I)	Rating x 2,000¥
Sleaze Module	5-8	Rating/3	Rating(I)	Rating x 5,000¥
Sleaze Module	9	3	9(I)	90,000¥

CASE TYPE	CAPACITY (CYBERDECK/CYBERHACK)	AVAIL	COST
Breadbox Case	Unlimited/Unlimited	2(I)	0¥ (50% discount on hardware)
Briefcase	12/4 (includes cyberhack and deck)	2(I)	200¥
Commlink Case	4/Not Available	2(I)	100¥
Gonzo Case	2/2	5(I)	1,000¥ for cyberdeck/5,000¥ for cyberhack
Keytar Case	10/4 (includes cyberhack and deck)	3(I)	2,000¥
RCC Case	8/0 (with no room for a cyberdeck)	4(I)	500¥
Wearable Case	2/Not Available	4(I)	500¥

## Optional Cyberdeck Components and Accessories

CASE MODIFICATION	CAPACITY	AVAIL	COST
Additional Jacks	1	2(I)	250¥
Dart Launcher	1/dart	5(I)	2,000¥ (+500¥ per additional dart)
Gonzo Hardening	2	4(I)	2,000¥
Hardening	1	2(I)	1,000¥
Shock Shield	4-8	5(I)	750¥ (+250¥ per additional capacity used)

INTERNAL COMPONENT	RATING	CORE SLOTS	AVAIL	COST
Internal Program Slot	—	1	2(I)	2,000¥
Dedicated Program Slot	—	1/2	3(I)	1,000¥ + program's cost
Response Increase	1-3	Rating x 2	5(I)	Rating x 10,000¥
Reality Filter	—	2	4(I)	10,000¥
Turbo-Charger	1-3	Rating	4(I)	Rating x 5,000¥

ACCESSORIES	AVAIL	COST
External Program Carrier	1	150¥
Cyberjack Boosters		
Data Processing		
Rating 1	4(I)	5,000¥
Rating 2	6(I)	10,000¥
Firewall		
Rating 1	4(I)	5,000¥
Rating 2	6(I)	10,000¥
Matrix Initiative		
Rating 1	4(I)	10,000¥
Rating 2	6(I)	25,000¥

tation in a specific way, but are bulky objects too large to be implanted. Each cyberjack booster must be plugged into a datajack directly via cable. They're roughly the size of your average commlink, so most of them are built into commlink cases to disguise their true purpose. That said, most people don't walk around jacked into the one commlink they own, let alone several at the same time. When jacked in and powered on, a cyberjack booster provides a bonus based on its type. A Data Processing or Firewall cyberjack booster improves that Matrix attribute by its rating. A Matrix Initiative booster adds its rating in additional initiative dice when in VR, up to a maximum of five initiative dice. The Matrix Initiative booster has a problem with heat build-up and shuts itself off after five minutes of use. It takes one hour for the device to cool off after use, during which time it is uncomfortably warm to the touch. If you rotate out any of your Matrix attributes, the bonus from the cyberjack booster still modifies the Data Processing or Firewall attribute. It does not rotate out to boost Attack or Sleaze. Cyberjack boosters only work with the cyberjack augmentation. They are incompatible with cyberhacks.

## GIZMOS

### DATA TAPS

Data taps are small, handheld devices with a variety of connectors designed to allow direct access to another device or network. Standard data taps are a common tool used by legitimate technicians, but hackers have adapted them for more nefarious purposes. It's a widely known fact that directly connecting to a device makes it much easier to hack.

#### STANDARD DATA TAP

The standard data tap is legal and widely available. Unless you're using it to connect to something you aren't supposed to, no one is going to bother you about having one. Installing a standard data tap requires you to be close enough to touch the device you're connecting to. If there are no exposed wires or dataports, you might need to pry open a case or something, and some security systems are designed to detect such tampering. Once you have a ready data tap and access to a device, attaching it requires a Major Action and an Electronics + Logic (2) test. This creates a connection but does not grant access. Once connected, the data tap can be accessed directly via the universal dataport or enabled for wireless connection. Unless you take action to conceal it, the threshold for a Perception test to notice the data tap is 1. You may make a Stealth (Palming) + Agility test to conceal a data tap, in which case your hits set the threshold to discover it.

#### ARROW TAP

If you can't get close to a device to install a data tap, why not strap one onto an arrow or crossbow bolt? Well, it's not that simple. Quite a lot of innovation has gone into making these things work. These marvelous projectiles repurpose a micro-drone into a data tap delivery system and fits it all within an oversized arrowhead. Using these requires considerable accuracy. It takes a Major Action to bring the arrow tap online and designate the device you wish to have it connect to. Then you must score at least 3 net hits on an attack test to hit your target. If successful, the arrowhead pierces the case or sticks into the wall next to it (doing effectively zero damage), then dissolves due to a chemical reaction similar to that used in stealth grapple line technology. The microdrone activates, connects the data tap (no further rolls required), and bricks itself. As long as no one saw or heard you shoot the target, the tap is not any more obvious than a standard one. No Stealth test is allowed to make it harder to spot, though.

These are available as crossbow bolts, arrowheads, shuriken, throwing knives, or dart rounds. If used as a weapon, reduce base damage to 1P.

Arrow taps are one-use items. If you fire one and miss, the projectile will dissolve, and the microdrone will self-destruct.

An arrow tap has a very limited internal battery, and due to the requirements of stealth is not designed to be able to recharge wirelessly. Once activated, an arrow tap will only function for five minutes. A more expensive version with longer battery life is available, which lasts for thirty minutes.

#### GRAPPLE TAPPER

Someone looked at the concept of a grapple gun and had the inspiration to use it to establish direct wired connections. These grapple guns are a complete redesign of the original and are much smaller. Roughly the size of a large revolver with a data cable spool in place of a cylinder with bullets, the end is capped with a small metallic pod.

In order to use one, first take a Minor Action to activate the pod. To connect to the target, make an Athletics (Bows) + Agility (3) test. If you target a vehicle or drone, the pilot may make a defense test against your attack, and you require 3 net hits to make a connection. When fired, the pod extends its grapple claws and latches onto the target, then secretes a conductive gel that is used to establish a crude connection for the data tap. If the attack is successful, the connection is automatically established through the grapple gun's cable. This establishes a direct wired connection. Removing the grapple takes a Major Action and does not require a test. If the cable is cut, the connection is severed. The cable can be retracted af-

ter use, but the data tap is a one-use item that is not recoverable.

It's worth noting that while the data tap has no wireless connection of its own, the grapple gun's wireless function can be enabled for wireless access to any device it connects to.

## LASER JACK

For those requiring a secure, unhackable wireless connection, there's the laser jack. This tiny laser emitter/receiver module is used to establish a direct connection between devices and requires line-of-sight. Both devices must have a laser jack in order to connect. Normal noise levels do not apply. Any break in line-of-sight will completely sever the connection, but fog, rain, and other atmospheric particulates can degrade it. Light rain or smog generates 1 noise per 50 meters of distance; heavy rain or light fog increases this to 1 noise every 20 meters, and a thick fog adds 1 noise per 10 meters of distance. No noise reduction of any kind has any effect on reducing noise from this source. On a clear day, atmospheric interference limits the effective range to approximately 2 kilometers. These devices establish communication through a direct laser beam, so unless someone directly intercepts the laser with their own emitter, it's impossible to detect or access the devices wirelessly. The laser is faintly visible to IR sensors (including characters with thermographic vision). Spotting it requires an observe in detail action, with a threshold of 3.

The main drawback to this unhackable tech is that it's not capable of providing the bandwidth required for VR. Only wireless device functions and AR mode can be used if you are solely relying on laser jacks. For this reason, these rarely see regular use except when stealth or discretion is required.

## LINK GLOVES

These gloves have been obviously modified with the required chips and cables to generate a special electromagnetic field that can create a direct connection to any devices they touch. The gloves are impossible to disguise as normal clothing, though some clever designers have been known to make them seem fashionable rather than functional. The connection established through link gloves is of limited bandwidth, incapable of VR mode. Link gloves are not compatible with a living persona.

## STEALTH TAP

Standard data taps are not designed for concealment. They are bulky and include a wide variety of connection cables and adapters. A stealth data tap discards everything non-essential, resulting in a device roughly the size of a small-caliber bullet with several contact points. Due to a lack of included cables and dataports, you'll need an

electronics toolkit to install one. The process for attaching a stealth data tap is the same as for a standard one. The threshold to detect a stealth tap with a Perception test is 2 if no special attempts are made to conceal it. Any Edge boosts or actions taken as part of a Stealth (Palming) + Agility test to conceal a stealth tap cost half as many Edge points (round down).

## TASER TAP

The Defiance Super Shock taser fires wired taser darts, and a successful hit allows you to detect your target's medical status. Well, some nefarious (some would say brilliant) hackers managed to adapt this tech to help deal with those pesky street samurai who turn off all of their wireless functions to avoid getting their augmentations hacked. Taser taps are taser darts designed specifically for the Defiance Super Shock taser, and they deliver a payload of short-lived conductive nanites that establish a direct connection to all of the target's augmentations and linked devices. Even if they're offline or using an internal router. Even if they've switched off their augmentations. Of course, you have to tase someone to do this, so it isn't exactly a clandestine assault. Most hackers aren't crazy enough to use these. Once the connection is established, the target can take a Major Action to remove them (no test required). If left undisturbed, the connection will still be lost after one minute. You can choose whether or not to have the taser deliver its shock or only establish a connection. This is useful if you want to use it to connect to a camera or maglock without frying the thing. Whether or not you apply the shock, a taser tap is not reusable.

## MATRIX RELAY

A Matrix relay is a device that helps you extend the range of your wireless network, allowing you to operate at greater ranges or within a blackout zone. They come in a variety of shapes and sizes, from small handheld personal devices no larger than a credstick to massive systems that require a semi trailer to move. Hackers have discovered that these also work really well as signal boosters, allowing them to cut through noise caused by jamming and distance.

Here's how it works: a Matrix relay that is connected to your PAN essentially allows you to be in two (or more) places at once, as far as the Matrix is concerned. Setting one up requires a Major Action. No skill test is required unless you would like to conceal it with a Stealth (Palming) + Agility test. If you move away from your Matrix relay, determine if there is any noise directly between you and your wireless relay due to distance, jamming, or any other effect. If that noise ever exceeds the Matrix relay's rating, you are out of range. You benefit

from a stronger signal if you're not at the edge of the relay's range. If the relay's rating exceeds the noise affecting your connection to it, reduce all further noise penalties by that amount.

If you're within 100 meters of your Matrix relay, its full rating is available to boost your signal. Reduce your noise level by the relay's rating while it is active.

A Matrix relay can be restricted by its owner for personal use. If access is allowed, a number of users equal to its rating  $\times$  3 may connect to one.

#### FOR EXAMPLE:

Shade sets up a rating 4 Matrix relay and activates it. Later, when he needs to use it, he's 2 kilometers away for a noise level of 3. He wants to hack a camera that happens to be 150 meters away from his relay. If he didn't have the relay, he'd have to deal with a noise level of 3 due to the distance, but the noise level from the relay to the target is only 1. Because the relay has one point of rating left, it further reduces this noise level down to zero.

#### ANOTHER EXAMPLE:

Shade is just about ready to hack that camera when someone starts jamming the area around him, generating a noise level of 3. Normally this wouldn't be such a big deal. If he could access his relay, the jamming would have no effect. However, the jamming does affect his ability to connect to his relay. Unless he has some other way to mitigate the noise, the noise level of 3 due to distance plus the noise from jamming is higher than the relay's rating. Even though the relay is not under jamming, Shade can't access it unless he can reduce the noise to 4 or less. So he fires up his Signal Scrub cyber-program and reduces the noise to 1. Now he can hack his target from the relay with only 1 point of noise, unless someone starts jamming signals over there ...

The more powerful a Matrix relay is, the bulkier it must be. Reduce the threshold for Perception tests to notice or detect a Matrix relay by its rating. A Matrix relay with a rating higher than 6 normally requires a vehicle in order to be portable. Matrix relays with ratings higher than 9 require much more space and equipment, such as a semi trailer, and are usually used only by Matrix service techs.

#### TAG ABUSE

RFID tags are everywhere in the Sixth World, gathering and transmitting marketing data, monitoring you via sensors, delivering advertisements, and generally invading everyone's privacy. Of course, hackers have discovered, or in

some cases developed, a few new tricks that can be done with them.

#### GOD BOMB

A batch of software tags loaded with the most obnoxious but ultimately harmless viruses and other illegal software. Once activated, the tags start breaking the law with incredible speed and abandon. When activated, begin tracking an Overwatch Score for the GOD bomb. At the start of every combat round after activation, increase the GOD bomb's Overwatch Score by its rating  $\times$  1D6. When it reaches 40, a small explosive designed to utterly destroy all of the tags is detonated, leaving GOD with the impression that a persona has just been converged upon and dumped from the Matrix. This will undoubtedly cause an escalating security response, initially calling in demiGOD (decker/technomancer cops) in the Matrix, but a physical security response team will also show up. Obviously it's a bad idea to set one of these off where you're going to be, but they work great for distractions and practical jokes that go too far.

#### SCREAMER TAG BOMBS

Screamer tags are the opposite of stealth tags. They don't run silent, they go loud, usually with obnoxious AR audio and images. These are actually just nefariously modified standard RFID tags with some malicious code that makes them immune to common spam filters. Individually, these serve no purpose beyond harassment, marketing, vandalism, or a very simple distraction. However, some hackers had the big idea to use them in clusters. Despite the lack of a physical explosion, these devices have been dubbed "Screamer Bombs." Dozens of them at once, all tied to activate from one trigger, can create a stunning effect in the Matrix. A screamer tag bomb's rating is based on how many tags are tied together. Each point of rating represents about a dozen tags. When they are activated, they have an effect similar to a jammer, increasing the noise level by half the rating (round down) out to a radius of 100 meters. This is also illegal and alerts Matrix security forces that begin shutting the tags down one at a time (represented by the 1D6 minute burnout time). It also makes Matrix Perception tests much more difficult. Within range of an active screamer tag bomb, no Edge may be gained or used on any Matrix Perception tests. Furthermore, the dice pool of any Matrix Perception tests is reduced by the rating of the screamer tag bomb. Unlike jammers, these area-effect devices are not capable of screening their effects from individual users. They affect everyone. Anyone foolish enough to fire off a screamer tag bomb that is still connected to their own PAN gains 2D6 Overwatch every combat round.

## SOFTWARE TAGS

A software tag is slightly larger than your average datachip and contains the memory storage and processing power required to host and run a single piece of software. For more complex tasks, multiple software tags can be connected together to run several programs simultaneously. They are not powerful enough to run agent programs but can handle commlink apps, cyberprograms, and autosoftware.

## SPY TAGS

Instead of merely running silent, spy tags are programmed to stay offline to avoid any chance of Matrix detection, and only occasionally turn on to send a burst of data before deactivating for a time. These can be programmed to activate on a specific schedule, but the default is a randomized pattern to avoid accidental detection. Unless someone is actively searching for signals during the three seconds or so that the tag comes online, it is highly unlikely to be detected except by visual scans. This is standard operating procedure for a regular stealth tag (p. 269, SR6), which is only capable of reporting its position as location coordinates and a time stamp. Spy tags are stealth tags modified to pair with one or more sensor tags in order to gather more detailed information. In this case, the sensor tags operate in offline mode (no wireless), and only send their data to the stealth tag. Connecting a sensor tag to a stealth tag makes the tag a little bulkier, but they're still pretty small.

## WHISPER TAG BOMB

Less noisy than a screamer tag bomb, this device comes from the same concept but uses many stealth tags to make it harder to pick out individual silent-running icons. These stealth tags are modified with illegal software to appear to have a larger device footprint on the Matrix, so that they might be mistaken for a larger device until identified. When you are running silent and activate a whisper tag bomb, the whisper tag bomb begins to generate an Overwatch Score of its own at a rate of 1D6 per minute. If this score ever reaches 40, it is converged upon and destroyed, and a security team will be sent to its location. When you are using a whisper tag bomb, if anyone successfully spots you using a Matrix perception test, roll 2D6. Unless you roll doubles, they spotted a stealth tag instead. Permanently reduce the whisper tag bomb's rating by 1 every time this happens. Unless converged upon, you can deactivate and reuse a whisper tag bomb, but any rating reductions are permanent. Assume that they burn out or are bricked by Matrix security forces.

## COMMLINK HACKS

Commlinks are by far the most common Matrix devices used to generate a persona and PAN. Most people use them as a phone, pocket secretary, personal computer, portable entertainment system, and to protect their data and devices under a firewall. Hackers have found other ways to make them useful with a combination of software and hardware hacks. The armorlink, securelink, and stealthlink upgrades are designed to improve a commlink with a new function. You can combine multiple upgrades on the same commlink. Hacks, on the other hand, completely repurpose a commlink into a new device. These irreversible modifications replace the commlink's entire functionality with a new purpose. These can't be combined on the same commlink—each hack repurposes an entire commlink.

### AGENT BOX HACK

Agent software runs best on a cyberdeck, but a hacked commlink can be designed for use as a separate device made to host and run an agent program independently of its host cyberdeck. Hacking a commlink into an agent box requires an Electronics (Hardware) + Logic Extended test with a threshold equal to double the commlink's device rating and an interval of one hour. Once transformed, the commlink becomes an agent box with a rating equal to the original commlink's device rating. An agent box acts as an external program carrier for an agent with a rating no higher than the rating of the agent box. Detailed rules for agents, including specific uses for agent boxes, are in the Digital Toolbox chapter (p. 55).

### ARMORLINK UPGRADE

A commlink with an armorlink upgrade is more effective at protecting itself and the devices within its PAN against Matrix attacks. Add bonus dice equal to the armorlink upgrade rating to any test made to resist Matrix damage, which benefits the commlink as well as any devices connected to its PAN. The maximum rating for an armorlink upgrade is equal to the commlink's device rating.

### DECoy POD HACK

A decoy pod is a large handheld device built from a repurposed commlink, a jammer, and a confusingly wired frame that ties together a ridiculous number of stealth tags. When connected to a cyberdeck and activated, it confuses security protocols and draws attention away from your persona. When you accrue overwatch, it goes to the decoy pod instead of your persona. Once a decoy pod has gained a number of points of overwatch equal to its rating x 2, it overheats and explodes, dealing 4P fire damage at ground zero. For obvious

reasons, most deckers use these in wireless mode. You can only use one decoy pod at a time. Activating a decoy pod requires a Major Action due to the careful calibration required. It can be deactivated immediately with a Minor Action. If a decoy pod is deactivated before it is destroyed, it reboots with no Overwatch Score. An exploded decoy pod is not recoverable.

## PERSONA BOOSTER HACK

A persona booster is a commlink that has been overclocked, its operating system wiped and replaced with illegal software, and its entire purpose altered in order to add to the processing power of a persona. They're designed to interface with cyberdecks but can also be used with an RCC or commlinks. Unfortunately for technomancers, these things don't work for them. Hacking a commlink to transform it into a persona booster requires an Electronics toolkit and an extended Electronics (Hardware) + Logic test with a threshold equal to double the commlink's device rating and an interval of one hour. Once complete, the device irreversibly ceases to be a commlink and is now a persona booster, with a rating equal to half the original commlink's device rating (round up). When a persona booster is connected directly via a data cable (either to your device or to a data-jack), it can be engaged to enhance any Matrix Action. Engaging the persona booster requires a Minor Action, after which you add a number of wild dice to the dice pool for your next Matrix Action. If you have multiple persona boosters, you may use as many of them as you like to boost your Matrix Action, but you must spend a Minor Action to activate each one of them. Persona boosters may be used in wireless mode, but they only provide half as many wild dice (round up) as when they're plugged in. What's the catch, you ask? First of all, these devices can be very unpredictable. The wild dice giveth and the wild dice taketh away, though they are more likely to help than hinder. Second, these devices run hot and loud, and burn out quickly. After each use, permanently reduce a persona booster's rating by 1. Furthermore, your Overwatch Score is increased by the total amount rolled on all wild dice gained from persona boosters. GOD hates these things.

## SECURELINK UPGRADE

A commlink's Firewall is increased by the rating of its securelink upgrade, but only when resisting Hack actions. The maximum rating for a securelink upgrade is equal to the commlink's unmodified Firewall attribute.

## STEALTHLINK UPGRADE

A commlink gains a Sleaze attribute equal to its stealthlink upgrade rating. This Sleaze attribute is limited to Matrix stealth, and only applies when resisting a Matrix Perception action. This makes the commlink much more effective at running silent but does not allow for other Matrix Actions that would require a cyberdeck or living persona. The maximum rating for a stealthlink upgrade is equal to the commlink's unmodified Data Processing attribute.

## GIZMOS

DATA TAP	AVAIL	COST
Arrow Tap	4(I)	2,000¥
Grapple Tapper	4(I)	750¥
50m Cable Spool	2	50¥
Grappler Tap Pod	4(I)	350¥
Laser Jack	4	100¥/pair
Link Glove	5(L)	500¥/glove
Stealth Tap	2(I)	500¥
Taser Tap	5(I)	400¥

MATRIX RELAY	AVAIL	COST
Rating 1-3	2	Rating x 1,000¥
Rating 4-6	4(L)	Rating x 5,000¥
Rating 7-9	6(L)	Rating x 20,000¥
Rating 10+	Rating(L)	Rating x 50,000¥
Laser Jack	4	100¥/pair
Link Glove	5(L)	500¥/glove

TAG ABUSE	RATING	AVAIL	COST
GOD Bomb	1-6	4(I)	Rating x 500¥
Screamer Tag Bomb	1-6	2(I)	Rating x 100¥
Software Tag	1	4(L)	100¥
Spy Tag	2	2(L)	250¥ per sensor type
Whisper Tag Bomb	1-6	2(I)	Rating x 200¥

COMMLINK HACKS	RATING	AVAIL	COST
Agent Box	1-6	3(I)	Commlink cost plus rating x 100¥
Armorlink	1-6	4(L)	Rating x 250¥
Decoy Pod	1-6	4(I)	Commlink cost plus rating x 100¥
Persona Booster	1-3	3(I)	Commlink cost plus rating x 100¥
Stealthlink	1-3	4(I)	Rating x 1,000¥
Securelink	1-3	4(L)	Rating x 500¥



# ELEGANT ARCHITECTURE

## HOW WE GOT HERE

POSTED BY: GLITCH

- I know that not everyone here is an expert when it comes to the hardware side of the Matrix. So, I thought it would be a benefit to all of us for Glitch to go over where host architecture is currently at and where it's heading.
- Slamm-O!
- By "hardware," should I assume you're talking about Foundation hosts, too. By definition, they do not have any hardware, so I just want to make that clear.
- Gramius
- Yes, Gramius. I'm including Foundation hosts. I know most of us have come up with ways to work with them, but things are changing rapidly. The old server-based hosts set up after Crash 2.0 could be cracked with a can opener, but these new framework hosts are just as tough as a Foundation host. In fact, unless you start looking for a Foundation that isn't there, you may not be able to tell the difference. The big boys have started

building small, very high security framework hosts and nesting them inside their existing Foundation assets, then moving their best paydata to them. So don't be too disappointed when the only info your next deep dive brings up is that what you want isn't in the archive.

➤ Slamm-O!

➤ I think the best way to deal with the new changes in host architecture will be to do some legwork on your target's setup before you start a run. Check with your Matrix-savvy contacts to see what they may know about how the host is constructed. Find out who else has made runs against it and see if they left any pearls of wisdom in any of the data havens or hacker BBSs. If none of that produces results, then maybe do a recon run to see what you're dealing with, jack out, make a plan, and go back in knowing what you need to hit.

➤ Sim-Eon

➤ Of course, you may also find out that the only way to land the paydata you need is to set up an infiltration job. Hitting the physical location of some well-guarded pile of bricks and jacking

straight in. It's probably also a good idea to have a few street samurai along to watch your back, if you have to go at things that way and it happens to get loud.

- Pistons

## HOST TYPES

First and foremost, we must define what a host is. I would assume that all of you understand that hosts are what makes up the structure that is the Matrix—they are the backbone upon which all Matrix activity is generated in some way or another. In the old days, all of these hosts were physical server banks interconnected across the globe with wires, but over time this technology has evolved and flowed with metahumanity. Today's Matrix is a vast mixed bag of technology, mixing wired and wireless as well as physical with virtual. De la Mar's Matrix protocols attempted to convert the entirety of the Matrix over to Foundation technology, where all hosts were virtual and fueled by the Resonance. However attractive the new Matrix was, it has its faults. Many corporations and other security-minded users began recognizing these faults and balked at the conversion, choosing to still use the old-school technology of the physical server base.

- It was a red flag that something was amiss when certain groups kept their physical servers online; at least it was for anyone who was paying attention.
- Icarus

The new protocols did have widespread effect on the entire Matrix, though, as even the old technology had to adapt to the new operating systems and software mandates. Because of these new protocols, the current Matrix is built from both virtual Foundation hosts and framework hosts that function almost identically and communicate seamlessly. The only significant difference between the two is how they are built and maintained.

Foundation hosts are vast virtual hosts that are built from the fabric of the Resonance itself, as such they are extremely efficient to build and maintain on a large scale. This factor alone was very significant in de la Mar gaining the necessary support for implementing the new protocols based on this Foundation technology. The drawback to these, though, is that they can never truly be taken offline and are always connected to the Resonance, making them vulnerable to those who know how to navigate and manipulate the Resonance.

- They may be vulnerable to entry from the Deep Foundation, but it's a fraggin' hard trick to pull off. Even for a skilled technomancer, it's usually a lot easier to just slip in the front door than to search for a portal to the particular host's null node in the Deep Foundation.
- Respec

Framework hosts are built using a physical infrastructure connecting optical stack mainframes via fiber optic cables and wireless broadcast. Frameworks are cheaper to build on the small scale but are expensive and difficult to maintain on the global level. However, because they are built on physical servers, they can be isolated from the Matrix and still function, allowing a very controlled security environment when needed.

## HOST ARCHITECTURE

Now that we have the basic types covered, we can get into the real meat of what brings you here. The host architecture determines what sort of security options the corporations can throw at you, apart from having enough manpower to put spiders everywhere watching everything. There are several options to choose from, each with its own pros and cons depending on what kind of security is needed.

The most basic system is the simple standalone host, a single host structure without any special architecture to it. While these are simple and easy to build and use, they aren't necessarily pushovers for you hackers. These could be used by organizations like Stuffer Shack that don't have time or nuyen to spend on specialized Matrix security, but they also include such things as the ultraviolet R&D server with so much IC it would make hell freeze over.

- I for one am extremely grateful that Stuffer Shacks have always had cheap, low-rating hosts without any real security. I've been getting free Nukit Burgers there ever since I acquired my first rebuilt Allegiance Sigma.
- The Smiling Bandit
- Ick. Just Ick.
- Netcat

Nested hosts are arranged one inside another like a Russian doll, forcing you to pass through each one in succession to reach the most secure data in the innermost host. Nested hosts are the most common system—you will find both Foundation and framework hosts using it. A nested host system can either be linear or branched. In a linear configuration, the hosts are in a sequence where you must go through the previous host to get to the next. For example, host A leads to host B which leads to host C. You can't get to host C without going through host B—unless you can make a direct connection to a drive or device that's part of host C. A branched system is the same concept, except you could go from Host A to B, then B could go to C, D or E. Of course, just to make things fun and unpredictable, a branched host could contain a linear series within it. In either case the purpose of a nested host system is to provide a single point

of entry for users coming in from the general Matrix. This entry could be a large public host with relatively low security and plenty of unprotected content to distract visitors from more sensitive information, or it could be a simple chokepoint to funnel any and all users through on their way to more secure nested hosts. A nested structure allows you to compartmentalize information and limit access behind varying firewalls and IC.

The final type of architecture is the offline host. Only framework hosts can exist offline. They are often regarded as more secure because they require bypassing physical security before you can even attempt to hack them. There are quite a few varieties of offline host you could encounter, though. They can be old technology that has simply not been connected with the new Matrix, or purposefully built to operate offline. In addition to being offline, they could also be operating wireless or wired. When wireless, they are not much different than your PAN, meaning you just need to get within range of their broadcast signal, and you can start to hack your way through their defenses. More commonly, though, an offline host will also be wired, since the whole point is to provide as much security as possible. When wired, the only way you're going to gain access is by first infiltrating the location and bypassing any physical security, then directly connecting to a device slaved to the host or to the host server itself. Even a wired offline host needs to share information with other hosts once in a while; this is usually handled by data transfer via either a courier or transmission. For couriers, this is literally someone who downloads the data to a device or optical storage then takes it to the required location and uploads it. Transmission is when the host connects to the Matrix just long enough to broadcast the data to its new location. These transmissions can be just random one-time occurrences set up as needed, or set up on a scheduled interval to provide backup services. Intercepting the data transfer is the most vulnerable time and is often the target for enterprising runners, so corporations expend a lot of effort in keeping them secret and controlled.

## GAME INFORMATION

### THE VIRTUAL HORIZON

The virtual space in a host is separate from the Matrix at large, and any icons on that host are not accessible unless expressly part of a public-facing side. Gaining access to a host will allow interaction with the icons and devices on the inside. What is this, and what does it mean in gameplay?

The generally accepted term for this is the virtual horizon; anything in public view or outside of the virtual horizon works just like any other persona or device on the Matrix.

Public-facing icons and devices are the pieces and parts of a host that the owner wants to be publicly visible or usable by the general Matrix user (usually customers) or devices that need to communicate directly with another host or user. Examples of the first type would be a point of sale portal, or public directory.

Of particular interest to shadowrunners here is the specific case of maglocks and security cameras. Cameras would need to be public if the facility relies on third-party offsite security to allow monitoring from outside of the host. Maglocks are a little bit more difficult but not by much. For protection purposes, a maglock will almost always be on the inside of a host. So how do everyday legitimate users use it? Most maglock systems are passive, so using one is basically nothing more than the maglock making a Matrix Perception test to make sure the user is authorized (scanning a card, or checking the biometric data or key code against its database); this is represented in the rules by the opposed roll between a maglock and whatever method you are using to try to bypass it. Hacking your way past one is probably the number one use of direct connection and using Spoof Command.

So how does my decker who is sitting in the van using VR to hack a host know what icon to target in order to open the maglock to let my team into the lab to get the package they were hired to retrieve? Well, assuming he already has access to the host and is in the team's network, then it's a simple matter of his team telling him which one or sharing the team's AR feed. If the hacker has no real-world information to compare with, then it is a simple Matrix Perception test to identify the correct device icon.

Now let's look at Matrix interactions across the virtual horizon. The only Matrix action you take directly against any devices or icons "inside" a host while you're on the outside is Matrix Perception. All inside devices are considered to be running silent using the Host Rating + Sleaze of the host as the opposed dice pool. To target any icon (persona, device, IC, nested sub-host, etc.) on the inside you must first gain access via Brute Force, Backdoor Entry, or Direct Connection. You can still use Send Message Matrix Action across the virtual horizon.

The virtual horizon within a nested host network is a lot more malleable. Getting access, entering, and initial contact still works as above, but once you have gained access and stay on the inside of the network as a whole you can cross the virtual horizon as needed.

Maintaining access to a nested host allows you to interact with that host as well as any devices or personas in that host, even if you are in a different sub-host, as long as you are in a host that is in the network. This applies to all users but not IC—IC is native to the host and cannot leave it. Example: If you have access to host A (general), B (adminis-



tration), and C (security) but are currently in C because you probed your way down through the network and needed to get access to the security host, you can still interact with devices on hosts A and B.

Exiting a host network will reset all of your access levels for that host, including all Probe/Backdoor or Brute Force exploits. To re-enter that host, you must start all over with a new Probe or Brute Force hack attempt. For nested hosts, this means when you leave the network as a whole and exit to the Matrix specifically.

When exiting a nested host, you can choose to exit to a connected host (as long as you have access to the desired host; otherwise you must establish access first) in the chain or exit out to the Matrix, leaving the entire network. This means you can move freely (as long as you spend the minor action Enter/Exit Host to do so) among all connected hosts that you are maintaining access to. You can also choose to drop access to any given host as well to lower OS accumulation when you exit a host to move into another host on the same network.

## DIRECT CONNECTION

Direct connection offers no advantages on hacking a network beyond the connection itself.

This means the network still gets its full defense pool, but you have zero penalty due to noise, and you can bypass any nodes or hosts that the network may be hidden or protected by. For example, a direct connection to a security camera could provide access to a security host that's nested inside a public host, without ever having to enter the public host. A direct connection also allows a hacker to access a non-wireless device.

To make a direct connection, you run a physical data cable from your device (cyberdecks, cyberjacks, datajacks, and control rigs all come with a retractable fiber optic cable) to a universal dataport or data tap. Technomancers with the Skinlink echo can make a direct connection by physically touching a device. You can form a "wireless direct connection" to a device if it is wireless-enabled, and you are within ten meters of its physical location, and you can detect it using Matrix Perception.

## HOST PERSONAS

Personas generated by the host itself cannot leave the host network. This includes any internal Matrix users (such as corporate employees or spiders), IC, agents, or other Matrix entities using the host's native ASDF attributes for their persona.

A spider (a corporate security Matrix specialist) can choose to use any combination of mental and ASDF attributes of their persona/device or the host they are currently in. This allows a corporation to hire spiders without investing in as much gear as long as they are operating primarily in a host. For full VR, a good spider technically only needs a DNI (for example, trodes, datajack, or cyberjack), sim module, and skills with no need for a cyberdeck. Only when or if they leave a host to pursue an enemy hacker do they need to rely on their own devices.

## HOST NOISE, DEVICE LIMITS, AND DISTANCE

Hosts have no device limits, and there is no noise due to distance inside a host. Meaning that any and all devices slaved to a host don't have any penalties due to distance as long as they're within the limits of the scale (see p. 51) of the host.

Noise due to distance and the ability to access to a host varies, depending on the type and scale of the host. There are three basic types of host that you need to deal with: Foundation, framework, and offline. Foundation hosts form the backbone of how the general population uses the Matrix; corporations and governments maintain these for broad access. These hosts are typically large, and as long as you have general Matrix access, there is no noise due to distance when connecting to them as long as you are within the limits of their scale. Physical hosts are used for increased security purposes, which means these are probably the most likely type of host that a shadowrunner will encounter. Any information or Matrix functions to which an owner wants to restrict access typically uses a physical host of some type. A physical host may link multiple real locations without being physically present at each one; noise due to distance is calculated by the distance between the hacker and the point where they are attempting to access the host (called the access point) as long as that access point is within the limits of the host's scale. Most likely this will be the facility they wish to infiltrate, but it could also be any device that is connected to the host. Offline hosts are the most secure and can only be accessed by direct connection, so there is no noise to deal with.

Sometimes an owner will want or need to connect two hosts to transfer information. This is usually done by opening a temporary access to the main Foundation host and using it as a relay to transfer the information. However, if they choose to not use such a relay, there would still be a noise penalty for any actions between two hosts that do not have an overlapping scale area.

The vast majority of common legal Matrix use functions the same way as using a host-to-host connection. For example, if you want to make a

commlink call to your buddy in Tokyo and you are in Seattle, you simply connect to the MaBell global host, and it relays your call to Tokyo with no noise penalty. For the obvious reason that this creates a nice easy trail for GOD to follow illegal hacking actions, hackers don't use this method of relay. For game purposes, using a global host link to avoid noise earns a Matrix user +20 OS per connection.

## RULES FOR HACKING A FRAMEWORK HOST BASEMENT

The basement—or base—of a framework host has a structure similar to the Foundation, but there is no paradigm to deal with and no avatars are generated. The rating and Matrix attributes of the basement will be the same as the upper host, as will resolution grade. Any custom iconography used will also be carried over from the upper host to the base. The framework basement system shares some similarities to early host structure from the 2050s, but the components of the basement system only include the access host, an archive host, a scaffolding host, and a primary control host. Typically, the path for a persona to move between the base control structures and the upper host is extremely limited. This means that the only way to get into the basement files is to have physical access to the servers or finding the internal access portal that may or may not exist, depending on how paranoid the owners are. If this portal exists, it's usually buried deep inside the host and guarded by plenty of IC. Keep in mind there is still data flow out of the base whether a portal exists or not, and a hacker's OS will continue to accumulate as normal while inside the base. Security in these nodes will include a heavy IC presence, with both Patrol and defensive IC running. The basement structure also allows a copy of Patrol IC to be active in each area as if they were separate hosts. This means that every icon entering will be examined every turn that they are in the basement.

The access portal is the point of entry for the base. Security is typically heaviest in this host, with lighter security past this point. If the host has Matrix-side access, finding the portal requires an Electronics + Logic (12, 1 turn) Extended test. Entering the access portal requires a Cracking + Logic vs. (Firewall x 2) test. Exiting is a simple Exit Host action that returns the hacker to their entry point; if they were using a direct connection, it ends the connection to the host.

The archive is a secure file storage system. Normally only someone with ownership of a file can move a file in the archive back to the upper host. However, inside the archive, the files can be manipulated normally. Additional security measures, such as encryption and data bombs, are rarely used here.

The scaffolding host maintains the root system programming for the interface and iconography. Editing the files in this node can change the appearance and function of any of the upper host elements. The grade of the host can also be lowered from here, though raising it requires reprogramming and a considerable increase in processing power. This host also handles any device connections that are too sensitive to be open to the upper host.

The primary control host maintains the security protocols for both the upper host and the host basement. This host sets the order and condition that IC is deployed. Editing the files here can recall or remove IC programs or reset their order. The primary control also sets the ASDF order of the host, and the setting can be rearranged from here. Last and most important, the host registration and ownership files are contained here; deleting them will take a host offline until they can be reinstalled and the host rebooted.

## BUILDING A HOST

Every host is defined by three characteristics that describe its overall capabilities

**Rating:** This is a number from 1 to 12 that measures the host's security and processing power.

**Grade:** A number from 1 to 6 representing the sophistication of the simsense interface.

**Scale:** A number from 1 to 6 that sets the effective area of the host's LAN or WAN.

Hosts are also defined by whether they are framework or Foundation, but those two terms have more to do with how hosts are created than how they function. To reflect this, the two different types of hosts have a different cost for the host rating, host grade, and host scale.

## FRAMEWORK HOSTS

Framework hosts are more flexible with the attributes. One attribute can be set as low as -1 below the rating, and the +6 (or +7) points can be allocated in any pattern but limited to +4 on a single attribute. For example, a possible set-up could be (Host Rating -1), (Host Rating), (Host Rating +3), (Host Rating +4).

## HOST RATING

This cost represents the shell of the host and the grade and scale modifiers applied to it. The host rating number, ranging from 1 to 12, sets the Matrix Attributes of the host. These are its Attack, Sleaze, Data Processing, and Firewall values. For Foundation hosts, the rating of these individual attributes will typically be (Host Rating), (Host Rating +1), (Host Rating +2), and (Host Rating +3). They can be assigned in any order.

Foundation host shells, of all ratings, can only be purchased from one of the few builders licensed by the Corporate Court to use their software. This keeps the base cost comparatively high for low-resolution grades and low-scale hosts. Less-than-legal buyers must also include the expense of setting up shell corporations in the cost to make the purchase look legitimate.

Framework hosts have a lower base cost for low-resolution grade and low scales since they use relatively inexpensive optical stack mainframes—or bricks—to form the shell. The cost of a framework host increases quickly as the scale and grade increase, since both of these factors require large increases in the number of bricks needed to generate the host. Framework hosts also have a yearly operating cost that totals two percent of the initial cost of the host. Framework hosts also have the option of running as standalone systems with no connection to the Matrix, while Foundation hosts must always be open to the Matrix. Using this option has no impact on the cost of a framework host.

## SAMPLE HOST RATINGS

SECURITY LEVELS/ EXAMPLES	HOST RATING
Minimum security: personal sites, small businesses	1-3
Standard security: local corporations; public services, universities	4-6
Enhanced security: Matrix games; local megacorporate division, large universities; government	7-8
High security: regional megacorporate divisions, major government operations, secure sites	9-10
Ultra-max security: megacorporate headquarters, military command, Zurich Orbital	11-12

## HOST GRADES

The grade of a host is a measure of the sophistication of the simsense interface. As the simulation becomes more immersive and realistic, it requires more elaborate programming. Framework hosts also need more processing power to run the higher resolutions—requiring more physical equipment—and this is reflected in the higher grade modifier. Foundation hosts have basically unlimited processing, so increasing the resolution grade only has to account for the programming cost. This makes Foundation hosts running higher resolution grades much less expensive than a framework host using higher grades.

**Grade 1 Minimal:** Resolution is dialed all the way down to most basic geometric shapes and solid primary colors. Gravity, momentum, and other physical forces are not simulated. This is the lowest-cost interface possible, and users unfamiliar

with the settings of a specific host will need to analyze every icon to see what its function is. This resolution is typically used for engineering and scientific work where the processing power needed for applications far outweighs the need for an immersive interface.

**Grade 2 Default:** Displays a basic default iconography with no customization of icons or host. The visual components of icons have a granulated or pixelated appearance, and if other sensory outputs are present, they will be equally crude. Default grade hosts may use some basic gravity environment simulation but no realistic modeling of momentum or other forces. Generally used in low-budget applications where the user is an employee, not a customer.

**Grade 3 Standard:** Some customization of icons and the visual elements of the host environment are made to align with the owner's corporate branding. This is the most common resolution grade, used for retail, service, and other general-use, public-facing interfaces.

**Grade 4 Custom:** Customized iconography is used throughout the host to match a theme set by the host programmers. Regular users of the host can gain a single point of Edge advantage over anyone unfamiliar with its specific iconography and environment. Typically used for high-end retail and service applications, a front-facing customized host has become the standard expected from most corporations. This is the point where Foundation hosts become more cost-effective than framework hosts.

**Grade 5 Sculpted:** This allows programmers to define all aspects of the VR experience. Many of the icons are specific to the sculpted host, and new users will generally have to analyze an icon to see what its function is. Programmers often alter the parameters of the environment, such as gravity or momentum, and may include overrides for reality filters. Regular users of the host can gain up to two points of Edge advantage over anyone unfamiliar with the host's specific iconography and environment. Generally used as a status symbol for major corporations as much as for any other reason, framework hosts with this level of simsense interface sophistication can be prohibitively expensive.

**Grade 6 Ultra-Violet:** Highest resolution possible, indistinguishable from reality by the metahuman mind. UV hosts have specific rules for interaction. This level of interface is quite rare, and most were built as research projects to push the SOTA, but a few have been built for ultra-high-end entertainment.

## HOST SCALE

The geographic footprint of the LAN or WAN generated by the host is a general measure describing its relative size. The host used by a small

research team or your local Stuffer Shack does not need connectivity outside of a very limited area; on the other hand, your typical megacorporation wants their front-facing main host to span the entire globe, regardless of the cost.

**Scale 1 Micro (Personal):** Designed to cover a very limited area such as an apartment, home, or small office with a small number of users in the host at any given time. These systems are considered a local area network (or LAN). Depending on the security rating, the micro-scale personal host can be used for residential applications, independent professionals, or small research labs. Micro-scale hosts with wireless access turned off are also the perfect solution for high-security, local-access-only data archives.

**Scale 2 Base (Facility):** Covering a larger area than a micro-scale host, the base-scale host is also a LAN and is anchored to a single physical location at the Matrix ground level. These hosts are designed to serve a single building or a small compound. They are capable of handling the computing needs of most retail outlets, restaurants, large research labs, or small corporate facilities.

**Scale 3 Net (Local):** The smallest of the distributed host systems generating a wide area network (or WAN), the net-scale—or network-scale—host is designed to cover an area kilometers across. Framework net-scale systems are installed in several separate locations across the area served and then networked together to provide coverage. Net-scale hosts are represented above the ground level of the Matrix. They can provide service to a large corporate compound, an arcology, a district in a typical sprawl, or even a small town.

**Scale 4 Macro (Sprawl):** Providing coverage to a single large city or sprawl, the macro-scale host is a distributed WAN system typically used by city governments or as the main hosts of local corporations. Framework systems at this scale use the same technology as a net-scale host and in fact can just be considered several net-scale systems networked together.

**Scale 5 Mega (National):** Designed to span an entire large nation or the continental division of a corporation, mega-scale hosts are typically owned by national governments and AA-rated or larger corporations. Inside the virtual world of the Matrix, the mega-scale hosts fill in the middle areas, below the giant constructs of the AAAs but still far above the rest.

**Scale 6 Exa (Global):** The largest hosts possible, exa-scale hosts provide coverage to the entire planet. The handful that exist are owned by the world's megacorporations, and their icons dominate the virtual sky of the Matrix, floating kilometers above everything else.

# COST OF BUILDING A HOST

## FRAMEWORK (AVAILABILITY = RATING)

RATING (BASE COST)	GRADE (MULTIPLIER)	SCALE (MULTIPLIER)
1 (500¥)	x2	x8
2 (750¥)	x4	x16
3 (1,000¥)	x6	x32
4 (4,000¥)	x8	x64
5 (6,000¥)	x10	x128
6 (8,000¥)	x20	x256
7 (10,000¥)		
8 (20,000¥)		
9 (100,000¥)		
10 (500,000¥)		
11 (2,500,000¥)		
12 (5,000,000¥)		

## FOUNDATION (AVAILABILITY = RATING)

RATING (BASE COST)	GRADE (MULTIPLIER)	SCALE (MULTIPLIER)
1 (5,000¥)	x2	x4
2 (7,500¥)	x3	x8
3 (10,000¥)	x4	x16
4 (20,000¥)	x6	x32
5 (30,000¥)	x9	x64
6 (40,000¥)	x12	x128
7 (100,000¥)		
8 (200,000¥)		
9 (300,000¥)		
10 (1,000,000¥)		
11 (3,000,000¥)		
12 (6,000,000¥)		

## EXAMPLES

EXAMPLES	RATING/GRADE/SCALE	FRAMEWORK	FOUNDATION
Secure safehouse	4/3/2	384,000¥	640,000¥
Multinational corporation (A or AA)	6/3/6	12,288,000¥	20,480,000¥
AAA corporate security host	9/4/6	204,800,000¥	230,400,000¥
Ultra-max R&D facility	12/6/3	3,200,000,000¥	1,152,000,000¥
Secure facility w/ remote access	8/4/4	10,240,000¥	38,400,000¥
Bargain basement	1/1/1	8,000¥	40,000¥
Stuffer Shack	3/2/2	64,000¥	240,000¥
AAA corporate central host	12/3/6	7,680,000,000¥	3,072,000,000¥
Residential	2/2/1	12,000¥	60,000¥
High-end residential	6/4/2	1,024,000¥	1,920,000¥

## COMPUTERS

### DATATERMS

These basic computers are marketed as essential in-home communication and entertainment devices. They are able to run any commlink program and provide voice and AR access, full text functions, telephone/vidphone, Matrix browsing, data storage, and chip ports. With accessories like speakers and trid-projectors—or ASIST—they become full home entertainment systems. They also generate a PAN to control other in-home devices like environmental controls, lighting, auto-chefs, and cleaning drones. With slightly different brand names, the same units can be found

on the desks of most wageslaves—at least those who need to stay chained to their workstations but don't require full cyberterminals for their job. Both types of dataterms can run a digital assistant to manage a schedule, search the Matrix, flag news stories of interest, and carry out other simple commands. Dataterms are relatively boxy devices, typically the size and shape of a large book, that are non-portable and require an external power supply. With no need for portability or compactness, and the fact they use technology at least a generation or two behind current SOTA, dataterms offer all of the processing power, data storage, and functions of a commlink at a fraction of the cost.

### DATATERMS

ITEM	DEVICE RATING	ATTRIBUTES (D/F)	ACTIVE PROGRAM SLOTS	AVAIL.	COST
Eastern Electronics Term	1	1/0	1	2	30¥
Xiao Homestation	2	1/1	1	2	150¥
Novatech Edge	3	2/1	1	2	400¥
Spectrum VVX	4	2/2	2	2	900¥
Leviathan Executive	5	3/2	2	2	1,500¥
Hermes Home Connect	6	3/3	3	3	4,000¥

## CYBERTERMINALS

ITEM	DEVICE RATING	ATTRIBUTES (A/S)	ATTRIBUTES (D/F)	ACTIVE PROGRAM SLOTS	AVAIL.	COST
Aztechnology Aprendiz	1	4/3	2/1	1	3(I)	52,500¥
Radio Shack CT-200	2	5/4	3/2	3	3(I)	79,900¥
Microdeck Watchman	3	6/5	4/3	5	4(I)	105,250¥
Renraku Shugosha	4	7/6	5/4	7	5(I)	129,000¥
Shiawase Gunso	5	8/7	6/5	9	6(I)	254,500¥
Fairlight Falchion	6	9/8	7/6	11	7(I)	380,250¥

## CYBERTERMINALS

Many corporate security jobs simply do not justify the expense of an implanted cyberjack or the portability of a cyberdeck, especially those filled by low-level personnel who haven't proven their ability or loyalty yet. Most employers prefer a low-cost option for facility and Matrix security work, one that can sit on a desk and be used by the next shift—or the replacement for the guy who just had his brains fragged. Cyberterminals provide full ASDF Matrix functions in one device, but are non-portable, requiring a stable external power supply to operate. They are physically much larger than a cyberdeck, about the size of a large briefcase or suitcase. Most include a supplemental flip-up flat display and a manual input device for accessing basic functions. For actual use, a cyberterminal can project standard AR overlay controls, and all models include a sim-module for full DNI connectivity if the user has a datajack or trodes.

## OPTICAL STACK

### MAINFRAMES / 'BRICKS'

Once the backbone of the Matrix, optical stack mainframes, usually called optical bricks or just bricks, were the primary devices used for host generation, data networks, and general commercial computing. That changed in 2075 with the adoption of Danielle de la Mar's new Matrix protocols. Within a few months, the unlimited free processing power and storage of Foundation-tech hosts had convinced almost every major user to mothball their physical equipment. It didn't take long for cracks to start appearing in Foundation-tech, and research nuyen was funneled back into improving physical processing. Eventually, a new framework base structure that mimics a Foundation archive was developed. With that advancement and others in place, framework hosts generated by optical stack mainframes have started coming back into use.

Individual optical bricks are about the size of a dataterm or a large book. They are packed solid with stacked optical processors, power converters, ASIST arrays, and signal processors; they all require a stable external power supply to operate. The rating of a brick is a measure of its process-

ing speed and capacity, but even the lowest-rated bricks have the computing power of a room full of pre-optical computers. While available as a single device, they are more commonly found in pre-packaged and pre-networked assemblies such as quads (four bricks), cubes (sixteen bricks), and walls (sixty-four brick assemblies). Micro-scale and base-scale hosts use a single cluster of bricks, quads, cubes, or wall assemblies, while larger hosts require a series of networked wall assemblies scattered around the coverage area.

While a single brick has the processing power to generate a grade 1, scope 1 framework host, almost every other application requires multiple bricks, sometimes hundreds or even thousands, networked together. And of course, a framework host also requires more than raw processing power. There is a substantial amount of programming, along with the host registration, that goes into even the simplest host. In addition to their use in generating framework hosts, bricks can be connected to other devices, like dataterms, to provide dedicated computational power for science or engineering projects. When used this way, the brick's rating must match or exceed the rating of the device it's connected to.

## BRICKS

### (OPTICAL STACK MAINFRAMES)

#### BRICKS

RATING	AVAIL.	COST
1-3	3	Rating x 800¥
4-6	Rating	Rating x 1,200¥
7-9	Rating (L)	Rating x 5,000¥
10-12	Rating (I)	Rating x 10,000¥

## UV HOSTS

Back in the old days of the Matrix before Crash 2.0, deckers and Matrix security personnel would rank the security and processing power of hosts into color bands. The most powerful hosts were classified as ultraviolet (UV). The experience of being inside these hosts was beyond real, in line with a Foundation run or a BTL. These days, the term UV describes the highest possible grade of computer simulation.

UV hosts use a type of sculpting called a programming metaphor. This sets up the “reality” of the host. It defines the look and feel of everything from the personas that enter the host to the connected devices and files. The metaphor enforced by a UV system is overwhelming and will override any reality filters or any other personal iconography. The UV host pulls this off by routing the signal through the user’s subconscious, similar to how a Foundation operates but less dream-like, and amplifying the simsense signal, elevating the virtual environment to the point where everything feels more real than reality. On the downside, the overwhelming sensory experience can lead to addiction similar to BTLs.

Operating inside a UV host (grade 6) has a different set of rules than the lower-grade hosts. The programming metaphor used by the host as an interface sets the “reality” of the host and is so sophisticated that it will interpret the actions of the user relative to the rules set by the simulation and use that as commands. The UV host operates similarly to a host Foundation construct, but the simulation has less dream-like elements.

To interact with a UV host, a user must be in hot-sim. If a user attempts to enter a UV host in cold-sim, the UV hosts will deactivate the safety parameters of cold-sim and switch to hot-sim. AR users cannot enter a UV host.

Persona icons are discarded; instead, users and their gear typically appear as they would normally in meat space, only adapted to fit the programming metaphor. Riggers will even have their RCC and complete set of drones with matching weapon configuration. Software, complex forms, and even echoes are also converted, taking on the appearance of gear appropriate to the environment. AIs and EIs take on metahuman form while in the UV host. Agents and sprites will be translated as devices or creatures fitting the metaphor of the host as well.

Due to the hyper-real nature of UV hosts, players who are logged into one will use their attributes as if in the real world. Runners use their normal skills while in the UV host. If they want to take down some IC, they can attack it with melee or shoot at it with their virtual-gun. If they want to move a little faster, they can sprint with their Athletics. Initiative remains the same due to the reality of the environment.

Any user with a cyberjack or Resonance attribute gains access to a new action: Create an Edge, where they can make a Cracking + Logic (3) test as a Major Action in combat to create a favorable situation for their team, gaining all other runners 1 Edge. Additionally, they gain the ability to use Cracking (Cybercombat) to sling code in combat

as if they were shooting a gun, and they can choose to use either their normal real-world initiative or their Matrix hot-sim initiative. Technomancers are right at home in an ultraviolet host. Instead of their actual physical attributes, they may use the attributes that would be created by a Foundation avatar (p. 140). Compiling sprites and complex forms follow normal rules but may have a different appearance when translated by the programming metaphor.

Magic use is interpreted by the UV host as a program input. Instead of using the skill + Magic, the technology only interprets the attribute associated with their tradition. For example, spellcasting for a shaman would be a Sorcery + Charisma test, while summoning for a hermetic mage would be Conjuring + Logic. “Spirits” are agent programs controlled by their summoner. In any case, magicians resist drain as normal. Magicians can use foci, but they must replace one of their dice with a wild die when they do. Reagents are not usable inside the host, and there is no astral perception.

Adepts are similarly translated—their power points are interpreted as overclocking the unit. When a skill test would be affected by an adept power, replace one of the dice with a wild die. For instance, if the runner has Critical Strike or Killing Hands, any melee attacks affected by these powers would replace a die with a wild die. If a runner has Combat Sense, every Defense test and Surprise test replaces one die with a wild die. Initiative rolls do not get a wild die.

Damage in a UV host is limited by safety protocols in the programming metaphor and will always be Stun regardless of the method causing it. Physical damage does not transfer to the physical body like damage taken in the Foundation or the Resonance Realms. First aid, medkits, and spells work as normal, but only if they heal Stun damage.

Being ejected from a UV host by having a ’jack pulled or a ’deck bricked follows the normal rules. Leaving a UV host works by finding a door or gate inside the simulation and focusing on leaving the host. The programming metaphor will interpret this as an Exit Host action and will allow the user to return to the Matrix. Locating the Foundation Portal of the UV host operates in a similar manner but is much more difficult to do. It requires the same Electronics + Logic (12, 1 turn) Extended test (p. 144) to find the “right” portal. The normal test to get admin access to the Foundation portal is still required to open it.

The overwhelming sensory experience of a UV host can lead to addiction, much like BTL chips. On log out (not on dumpshock), the runner must make a Willpower + Willpower (3) test or gain a Level 1 Addiction (UV hosts/BTL).



# DIGITAL TOOLBOX

## WRITING CODE

Many programs are available to *Shadowrun* hackers, but a lot of the time hackers want programs they made themselves, even if their functionality ends up being the same as an off-the-shelf version. These rules help guide hackers through the process of coding their own programs.

Hackers need the Electronics skill and access to a coding shop to create their own software. This requires a programming Extended test with an interval of eight hours and a threshold of double the program's rating (or double its Availability if it has no rating). This allows you to purchase software using Karma instead of nuyen. Creating software in this way costs 1 Karma per 4,000 nuyen of the software's value (round up), with a minimum cost of 1 Karma per program. If you wish to create a skillsoft, autosoftware, knowlsoft, or linguasoft, you must either possess the skill yourself or have the cooperation of someone else who does. In either case, the rating of the software is

limited to your ranks in the skill. For other software with a rating, the rating is limited to your ranks in Electronics, and you must have the Software specialization or expertise. When you create your own software, there is no copy protection. It is assumed that you always have an offline backup copy, so that you can always retrieve the software if it is deleted. You can make as many copies as you like and share them with whoever you like, but you are not able to sell them. Few people trust homemade code, except perhaps the hacker who wrote it.

## PROGRAMMING TEST

In this chapter we will often refer to a programming test. This is an extended test using Electronics (Software) + Logic, and requires a device such as a cyberdeck, commlink, RCC, or host access. The threshold and interval for the programming test varies depending on the context.

# PROGRAMMING TOOLS

While it's technically possible to write code with just a text editor app, it helps to have software tools to make it easier and faster. Coding libraries are the toolkits of the software world. In order to write code with anything resembling efficiency, you need coding tools. If you don't have access to a coding kit, you may not gain or spend Edge on any programming tests. If you have a coding shop, reduce the interval of all programming tests to half the listed time. A coding facility requires a rating 6 device or host access. In addition to reducing the interval by half, a coding facility provides a point of Edge for the programming test. If the bonus Edge is not spent on a programming test, it is lost. In order to create a coding kit or shop, you require access to a coding shop. In order to create a coding facility, you require access to a coding facility.

## TOOLS

CODING LIBRARY	AVAIL	COST
Coding Kit	2	50¥
Coding Shop	4(L)	500¥
Coding Facility	8(L)	5,000¥

# COMMLINK APPS

**Code Buddy:** A Code Buddy is an app designed to help you create software faster by constantly checking for errors and providing suggestions for solutions, and even writing some of the more tedious code for you based on heuristic algorithms. This app can save you a lot of time, but not always—we've all laughed at autocorrect fails. When making a programming test with the assistance of a Code Buddy app, add one die to your dice pool, but make it a wild die.

**eParkour:** Analyzes local objects and projects possible parkour moves based on the user's skill profile. Provided you have a DNI or image link, it provides a point of Edge on any Athletics test, which must be spent on the test or is lost. This does not provide Edge on attack or defense tests, even ones that benefit from Athletics via the Dodge action.

**File Vault:** Any files stored away in a file vault app are protected by encryption with a rating equal to your commlink's Firewall attribute. If a decryption attempt is detected, the app's default response is to alert the commlink's owner and delete the files. The default response can be altered—one of the more clever applications is to cause the files to be edited or replaced, so that the hacker downloads false information unknowingly.

**SimShare:** This app allows you to share your simsense feed with other users. Most commonly used to experience media together or share a private simsense environment, it also allows users to subscribe to the commlink's simsense feed as a passenger in the Matrix. A subscribed user experiences all the same simsense as the commlink's owner, including any dumpshock or biofeedback damage. Subscribers can choose their own interface mode to limit this danger. Using AR completely prevents any damage, and cold sim VR means you only take Stun damage from biofeedback. Only biofeedback damage is shared, not Matrix damage. The only Matrix Actions a SimShare subscriber can use are send message, switch interface mode, and jack out, but you can assist other Matrix Actions with a Teamwork test if you have the matching skill. While much safer to use than the hacker program Hitchhiker, SimShare is not able to carry passengers into Foundations or the Resonance realms. A hitchhiker shows up as an icon attached to the host persona, and cannot be targeted separately via Matrix Actions, complex forms, or sprite powers.

**MeFeed:** Social media is ubiquitous in the Sixth World, and it can be a useful way to gather information quickly. Even people without MeFeed accounts are referenced and tracked, so if you know where to look, you can invade anyone's privacy. Having the MeFeed app running provides a point of Edge on any Matrix search about a person, company, pop culture topic, or current event. This Edge must be spent on the Matrix search, or it is lost. A glitch on this test introduces a piece of misinformation, while a critical glitch corrupts the entire search. These are commonly accessorized with a small flying drone for capturing life on the go and taking selfies. Many shadowrunners take advantage of this to excuse the presence of a surreptitious reconnaissance device.

**Mannequin:** Hackers sometimes need to make it look like one of their devices is running an active persona, perhaps while they are busy using a different device or just trying to blend in somewhere. The Mannequin app requires a personal assistant app to be running in order to function. With both Mannequin and a personal assistant running, your commlink appears to any Matrix observer to be generating an active persona. Detecting that this is a false persona requires a Matrix Perception test against a threshold equal to the commlink's device rating.

**Personal Assistant:** The personal assistant is one of the most common and popular commlink apps. It functions as a software servant, with the primary functions of keeping track of your schedule, monitoring your network, and automating control of connected devices. They are often programmed with artificial personalities and distinctive icons but are nowhere near being true sentient AI. These are essentially just highly sophisticated commlink automation tools. Unless equipped with additional software (see P-ICE below), it is limited to the

following Matrix actions: Change Icon, Control Device (owned devices only), Edit File (owned files only), Enter/Exit Host, Format Device (self-only), Full Matrix Defense, Jack Out, Matrix Perception, Matrix Search, Reboot Device (self-only), and Send Message. Issuing your PA a simple command requires a Minor Action. More complex automations require a bit more time and focus. Especially elaborate and complex automations may require a programming test with an interval of one minute, per the gamemaster's discretion. Any sequence, contingency, and combination of the available Matrix Actions is possible. Your PA will only take actions as directed. It has no initiative of its own and is capable of taking a single Matrix Action each combat round on your turn. For all actions, a PA's dice pool is its rating x 2. However, a PA must buy hits instead of rolling (one hit for every full four dice, rounded down), and no Edge may be gained or spent on its behalf. On its default setting, a PA improves your overall Matrix defense by constantly taking the Full Defense Matrix action on your behalf. This adds its rating to your dice pool to resist any hostile Matrix actions. Note: A rating 1 PA scores zero hits, rating 2-3 scores 1 hit, rating 4-5 scores 2 hits, and rating 6 scores 3 hits.

**P-ICE:** Personal ICE, or P-ICE, is a new line of commlink app designed to make people feel safer about using the Matrix. Not as powerful as true IC, it can still mess up a hacker's day. A commlink can only run one at a time, and it must run along with a personal assistant app.

**Nope!:** This type of P-ICE causes the PA to spend its action every combat round searching for signs of hostile Matrix activity against the commlink and its connected devices. If signs of hostile activity are detected, the PA carries out a batch of actions immediately. The default response is to alert its owner and the authorities of the attack or intrusion, then turn wireless off for all connected devices, then reboot the commlink. It can instead be set to alert only certain numbers, or to adjust the settings of some devices but not others. This must be predetermined, but the advantage is that the owner doesn't have to spend actions turning each device's wireless mode off to protect them against hacking—it all just happens quickly in response to a detected intrusion. You can also trigger the app using a Minor Action, even if no illegal activity is detected.

**Spines:** The Spines program arms your PA with some extra defense against hackers. Your PA continues to use its action on Full Defense every combat round. Any time a hacker takes a Matrix action that is opposed by your commlink's Firewall attribute, they take Matrix damage. If the Matrix Action against you succeeds, they take one Matrix damage. If it fails, they take one damage for every net hit against them (minimum one damage). This Matrix damage can only be prevented by the Spineshield cyberprogram.

**Watchdog:** The watchdog P-ICE causes the PA to spend its action every combat round to search for any icons that are running silent. If hidden icons are discovered, it alerts its owner and any other numbers it has been pre-programmed to contact. No further test or action is required to identify the icons, but the only information provided is the type of icon or device. If the icon is disguised or otherwise altered, the watchdog app reports the falsified information as if it were true.

## COMMLINK APPS

APP	AVAIL	COST
Code Buddy	2	30¥
File Vault	3	100¥
MeFeed!	1	Free* (in-app purchases available!)
Personal Assistant	2	Rating x 100¥
P-ICE: Nope!	3	250¥
P-ICE: Spines	3(L)	500¥
P-ICE: Watchdog	3	250¥

## NEW CYBERPROGRAMS

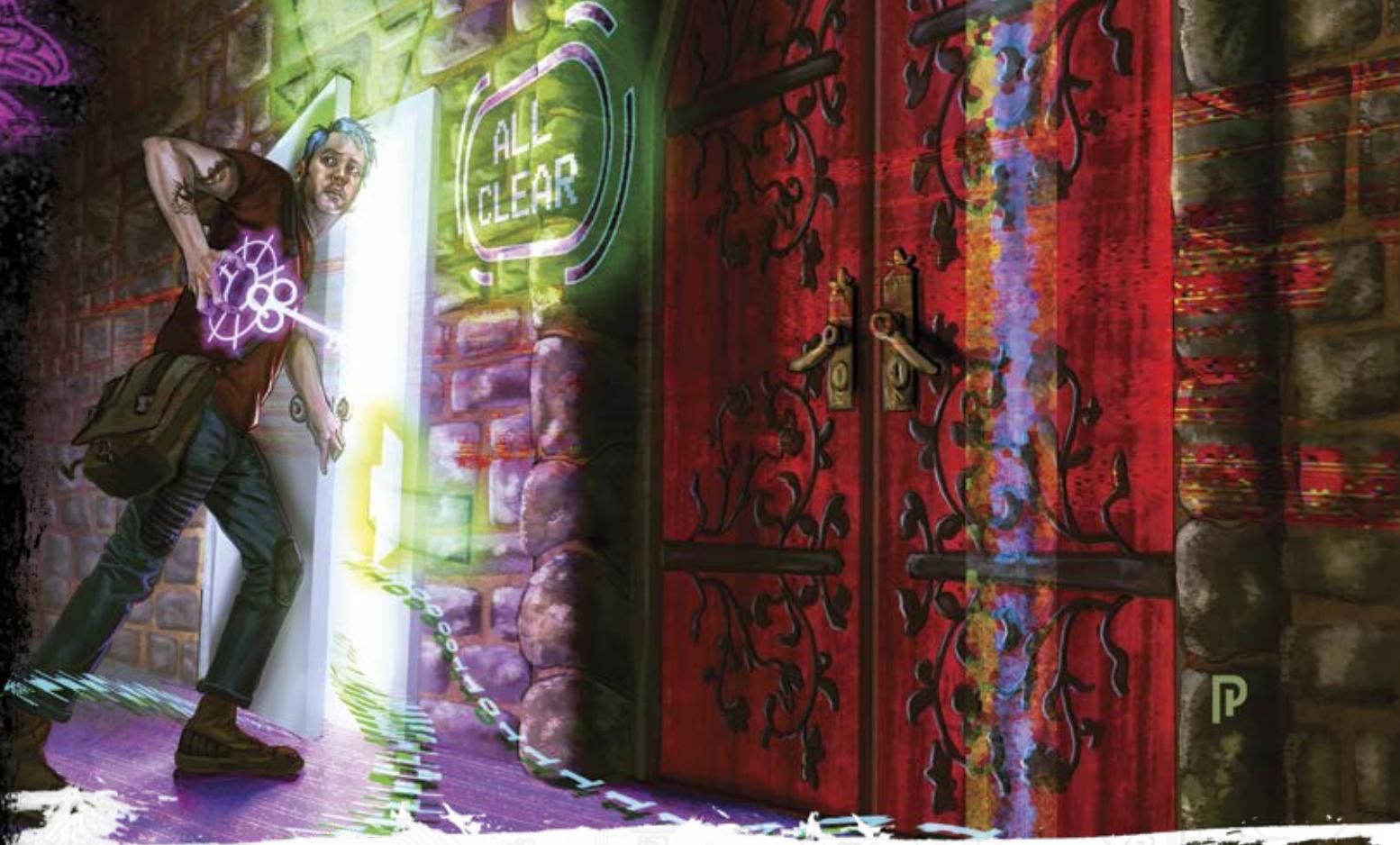
### BASIC CYBERPROGRAMS

**Autosoft Host:** This program allows you to load autosofts so that they can be utilized by an agent program. You only need to run one instance of autosoft host, and this unlocks the ability to run any number of autosofts — limited only by your program slots. In addition to autosofts, you can also run skillsofts in the same way. Each autosoft or skillsoft takes up a program slot of its own.

**Emulator:** Most deckers carry around a commlink for everyday Matrix use, but you can run them more efficiently on a cyberdeck using an emulator program. Emulator can run a number of commlink apps equal to the cyberdeck's device rating within its own program slot. You can still run commlink apps on a cyberdeck, but without this they each take up one program slot. This is most commonly used to run a personal assistant along with mannequin and some P-ICE.

### HACKING CYBERPROGRAMS

**Blaster-Charger:** This program allows you to build up extra code/power/force for a Data Spike Matrix Action. When running Blaster-Charger, you may spend one or more Minor Actions to "charge up" your Data Spike action. For each Minor Action spent charging up, reduce the cost of one boost or Edge action on behalf of your data spike by one, to a minimum cost of 1 point of Edge. After each



use, the program crashes. You can reload it with a Minor Action.

**Bomb Kit:** When you set a Data Bomb while running this program, replace one of your dice with a wild die. You may create a Data Bomb that gets copied along with a file instead of going off when illegally accessed. Unless the Data Bomb is located and disarmed, it will go off the first time the copy is accessed. However, you may choose to set a specific number of file access attempts that must occur before the Data Bomb goes off. And yes, if the copy is copied, the copy of the copy has a copy of the Data Bomb, too, et cetera and onward.

**Directional Shield:** This program allows you to enhance and focus your Firewall against an anticipated threat on the Matrix. When you have taken the Full Defense action, you may spend a Minor Anytime Action to add the rating of your Data Processing attribute to your dice pool to defend against a Matrix Action. You must be aware of the icon that is taking action against you in order to use this. You may use directional shield multiple times per combat round, but only once per Matrix defense roll. Each use requires an additional minor action.

**Defense Pods:** You can run multiple copies of defense pods. Whenever you suffer Matrix damage, you may spend a minor anytime action to activate a defense pod. You may activate more than one defense pod if you wish, but each one requires a separate Minor Action. For each defense pod

activated, reduce Matrix damage by 1. After each use, the program crashes. It can be reloaded with a Minor Action.

**Double Agent:** If you crash an IC while you have this program running, the host will launch a new copy of the IC in the next combat round. When this happens, the IC will spawn under your control. Until the next time you accrue overwatch, the IC will follow your orders to the best of its ability and will not take actions against you. When you get so much as one more point of overwatch, the double agent program crashes and the IC resumes its natural behavior. If the IC takes an action that generates overwatch, it is immediately deleted by the host after the action is complete (and re-launched on the next combat round — not under your control this time).

**Drone Master:** If you also have an RCC that is connected directly via data cable to your cyberdeck (or agent box), your agent program can jump into a drone that is subscribed to the RCC. Your agent effectively replaces the drone's Pilot with its own rating and overrides any autosofts with the ones it has access to. Autosofts running on the drone are not available while it is controlled by your agent. This doesn't upload your agent to a drone, though. It still requires a cyberdeck or agent box to run. The drone's Pilot ultimately resists being dominated (even if you own it). This doesn't cause any trouble when running under your PAN, but

if you use an agent box on a remote mission for this purpose, it takes 1D6 boxes of Matrix damage every minute. This is less of a security protocol and more of an unintended effect caused by clashing technologies.

**Quartermaster:** This program outfits an agent with a variety of useful software tools. Collectively, these tools give the agent its own Edge attribute equal to its rating, although its pool of Edge points begins empty and it cannot gain Edge on its own. The agent's owner may spend a Minor Anytime Action to transfer their own Edge points to the agent's pool of Edge. This is the only way the agent may gain points of Edge. An agent on a remote mission may be provided with points of Edge at the time that it is released, but no further points of Edge may be provided. The player who controls the agent may decide when and how the agent uses its available Edge, but the Edge may only be spent to directly assist the agent and cannot be given to or spent on behalf of other characters.

**Rocket Launcher:** These cybercombat super-chargers give deckers an advantage against demiGODs, IC, and hostile sprites, but they're just as good for messing with personas. If you spend a Minor Action to activate the rocket launcher before making a Data Spike Matrix Action, increase your base Matrix damage by 2. After the Data Spike action, the Rocket Launcher program crashes. You can reload another copy with a Minor Action. You may run multiple copies of Rocket Launcher at the same time, but you must spend a separate Minor Action to activate each one. If multiple Rocket Launchers are used on the same attack, Matrix damage is increased by 1 for each Rocket Launcher after the first.

**Secret Agent:** This program is designed to be uploaded with an agent operating in a host, in which case the agent accrues additional overwatch at the rate of 1D6 per hour (instead of 1D6 per minute).

**Smoke Bomb:** If you spend a Minor Action to activate a Smoke Bomb program just before taking a Hide Matrix Action, add a wild die to your dice pool. Then the Smoke Bomb program crashes, but you can always load it back up with a Minor Action. You may have multiple copies of Smoke Bomb active, but you must spend a separate Minor Action to activate each one. If you use more than one on a Hide test, add a wild die for each Smoke Bomb you activate.

**Special Agent:** Designate a specific specialization of the Cracking or Electronics skill when writing or purchasing this program. While running, this program effectively provides your agent with the designated specialization, increasing its dice pool by 2 for related tasks. You may run multiple special agent programs, but copies of the same specialization do not stack.

**Spin Doctor:** You may run multiple instances of Spin Doctor on a cyberdeck. Its effects are cumu-

lative, but each instance requires a program slot. In order for this software to work, you must also be running Baby Monitor. When your Overwatch Score starts to get dangerously high, this software begins a desperate sequence of dirty tricks to mimic malfunctions, implicate other icons, and under-prioritize offensive actions. This allows a hacker to stall, effectively increasing their maximum Overwatch Score (usually 40) by +2 per instance of Spin Doctor that you have running.

**Spineshield:** This cyberprogram was developed as a counter-countermeasure to hacking. It prevents one point of damage from the Spines commlink app, then crashes. You may run multiple copies of Spineshield, requiring a program slot for each one. If you suffer multiple boxes of Matrix damage, every copy will activate at once (regardless of how much or how little damage is incoming), reducing the damage by 1 for each running copy. After each use, this program crashes. You can, of course, reload the program with a Minor Action.

**Tapeworm:** If you have a copy of Tapeworm loaded, you may upload it to a device to which you have admin access. This requires a successful Edit File action. The Tapeworm will record a log of all Matrix Actions performed using the device, as well as any data that is accessed, downloaded, or sent from the device for up to one hour per net hit on the test to upload the tapeworm. You may choose a shorter time if you wish. During this time, the Tapeworm will hide and record data on the target device. It can only be noticed if someone attempts a Matrix Perception test on the device and scores a number of hits equal to your net hits on the test to upload the Tapeworm. If spotted, it can be deleted, but not traced. If it is not discovered and deleted, after its time expires the Tapeworm will upload all of its data to a pre-determined host on the Matrix and then delete itself. Usually these are data havens or public file-sharing hosts. Assuming you can access the target destination, you can download the files left for you by the tapeworm with no difficulty. To anyone else, the files are protected with rating 2 encryption.

## AGENTS

Agent software generates a second persona of limited artificial intelligence that can carry out Matrix Actions at the commands of its owner. While many are programmed to emulate personalities, these programs are not truly sentient. There are many stories that suggest an agent program can become a self-aware AI, but there doesn't seem to be a predictable means for how this occurs—if there is any truth to the stories at all. An agent program requires a program slot on a cyberdeck, or an external device called an agent box, in order to run. A cyberdeck or agent box can run one agent

## AGENTS

AGENT RATING	AVAIL	COST
Rating 1-6	Rating (L)	Rating x 1,500¥

with a rating no greater than its device rating. Even with an agent box connected, a cyberdeck can only run one agent at a time.

An agent program's Charisma, Intuition, Logic, and Willpower attributes are all equal to its rating. An agent also has a number of ranks in the Cracking and Electronics skills equal to its rating. The Matrix attributes of an agent come from the hacker's devices and are exactly the same as the cyberdeck's persona (including any bonuses or penalties from software, hardware, complex forms, etc.). An agent does not normally have a Matrix condition monitor of its own — if it takes Matrix damage, that damage goes straight to the cyberdeck's condition monitor. If an agent's actions generate overwatch, it applies to the parent device's overwatch score. Agent software shares all user and admin access statuses with its parent device, and it only has access to any devices or files that are explicitly allowed.

An agent's Matrix initiative is  $(\text{rating} \times 2) + 2D6$ . Any Matrix initiative enhancements from a cyberjack or other source also improve the agent's initiative. Unlike PA apps, agents are not limited to legal Matrix actions. They will take any Matrix action that is required in order to carry out their orders with no regard for legality or ethics.

One of the most common uses for an agent is to provide assistance to a decker. Unless commanded to do otherwise, an agent will always make a Teamwork test on behalf of all of its owner's Matrix actions. When used in this way, the agent must buy hits instead of rolling dice, providing one hit for every four dice (rounded down). To save time, note how many hits your agent can buy, and don't forget to add that many bonus dice to your dice pools when you take a Matrix Action. Note that each teamwork assistance requires your agent to take a Major Action, so its uses may be limited when time is of the essence.

Agents can access and use any program that is also running on their parent device. Some programs have been specifically designed to enhance agents. Autosofts were originally designed to provide drones with additional skills, and skillsofts to work with skillwire augmentations, but the Autosoft Host program allows an agent to make use of them, too. If you are running an Autosoft Host, you can load additional autosofts and skillsofts in your other program slots. Your agent gains the skills provided by the software. An agent can only run them at a rating up to its own rating, but it can effectively run a more powerful autosoft or skillsoft at a lower rating in order to make it compatible. Note that an agent already has the Cracking

and Electronics skills. Agents can provide teamwork assistance with any skill they have access to.

Many hackers prefer to code their own agents, but they can be legally purchased with a special license.

## AGENT BOX

The agent box is a hacked and repurposed commlink designed to host an agent program. An agent running on an agent box has its own Matrix condition monitor  $(8 + [\text{agent box rating}/2])$ . If an agent box is destroyed, the Matrix damage does not carry over to the host device—the agent simply ceases. Don't forget to back up your programs.

A cyberdeck is only capable of running one agent at a time, even if you have multiple agent boxes. There are still advantages to having multiple agent boxes, however. One of them is that it's always nice to have a backup. Another is that you can use them separately from a cyberdeck for remote missions.

## REMOTE MISSIONS

You need skill and a cyberdeck to prepare an agent for a remote mission. This allows an agent to function independently of its host cyberdeck, with some limitations. There are two ways to send an agent on a remote mission: by using an agent box or uploading one onto a host. To set up an agent box for a remote mission, make a programming test with a threshold equal to the agent's rating and an interval of one hour. Net hits are important, and you may make one additional test after achieving the threshold to increase your net hits if you wish. A critical glitch on this test is the source of most rumors of agents growing into true artificial intelligences. You must code instructions for a specific mission with clear targets and objectives, as well as a list of Matrix actions that are available to the agent while on the remote mission. You may only choose a number of Matrix actions equal to the agent's rating  $\times 2$ , so choose wisely. Finally, you must also set the agent's Matrix attributes: Attack, Sleaze, Data Processing, and Firewall. You have a pool of points equal to the agent's rating plus your net hits on the programming test. These points may be spent on a one-for-one basis on the agent's Matrix attributes and additional software. No Matrix attribute may be higher than the agent's rating, and none may be set to zero. It costs one point to provide your agent with each program, including autosofts, skillsofts, and commlink apps. You must own any programs you wish to include on a remote mission, but you do not lose them by copying them over. In this way your agent can be equipped with any cyberprogram or autosoft that it might need to complete its mission. If using an agent box, you

## CYBERKIT

RATING	ATTACK/SLEAZE	DATA PROCESSING/FIREWALL	DICE POOL (HITS BOUGHT)	AVAIL	COST (RECHARGE)
2	1	1	4(1)	2(I)	1,100¥ (200¥)
3	2	1	6(1)	3(I)	1,600¥ (300¥)
4	2	2	8(2)	4(I)	3,700¥ (400¥)
5	3	2	10(2)	5(I)	6,000¥ (500¥)
6	4	2	12(3)	6(I)	9,200¥ (600¥)

must connect a software tag or external program carrier for each program you include.

An agent on a remote mission has its own Matrix condition monitor ( $8 + [\text{rating}/2]$ ) and Overwatch Score. It suffers Matrix damage and accrues overwatch independently of its parent device, and the parent device can't be traced or accessed through the remote agent. An agent's starting Overwatch Score begins at the same level as the parent device's Overwatch Score when it was released on the mission. When it reaches 40, the agent and all accompanying software is automatically deleted, and the physical location of the agent box (if any) is reported to the authorities. A quarantined copy is kept for analysis by the host or GOD, but there's no connection back to the cyberdeck that generated it. Besides adding +1 to the team's heat modifier at the end of the run for every occurrence, there are no further consequences.

Uploading an agent to a device or host requires Admin access and one successful Edit File action for the agent and each program. No hardware is required. The agent gains admin access and accrues additional Overwatch Score at the rate of 1D6 per minute. If the agent is uploaded to a host, it works just as well as if running on an agent box. If uploaded to an RCC, its effective rating is reduced to the RCC's device rating/2, and no additional programs may be included. If uploaded to a commlink, it effectively takes over the PA app. In this case, the agent effectively loses all of its capabilities but gains full control over the PA. The PA will take any actions the agent tells it to. If an agent within a host, RCC, or commlink is converged upon, the host device immediately and automatically deletes the agent.

If an agent is uploaded to any other electronic device, its rating is limited to 2. Items with a Device Rating less than 2 lack the hardware required to host an agent. When in a device that is

not capable of hosting a network, such as a home appliance, firearm, or someone's wired reflexes, the only Matrix actions that your agent can take are actions that target the host device. If any device hosting a remote agent is rebooted, the agent is deleted from that device.

An agent on a remote mission only includes enough of its code to get the job done. When you send an agent on a remote mission, you still own a copy of the agent software and can still run one on an open program slot or spare agent box. You still have the program, and if you lose an agent on a remote mission, you don't lose the original. If someone downloads or copies a remote agent, they may not use the agent for any purpose other than its remote mission. It's definitely not the same thing as making a true copy of the program. While it is possible to make lots of remote agents at once, agents running independently of a cyberdeck tend not to last very long and are limited to following pre-programmed objectives. Remote agents are best used for specific tasks with limited objectives. There is, however, a market for pre-made agent boxes. Ownership of an agent box can be transferred, and so a number of unusual devices have shown up on the market. These are commonly referred to as cyberkits, and are a popular alternative to hiring a decker to come with your team on a run. You might think that deckers wouldn't be so willing to make something that replaces them, but there are plenty who prefer making and selling these to exposing themselves to more personal risk.

A cyberkit's rating is also the rating of the agent software loaded on it. Note that when a cyberkit is rebooted, its software is deleted. The hardware (an agent box) is the most expensive part, so unless it gets wrecked or lost, it can be reloaded for the listed recharge cost. Finding one to sell requires most contacts a number of hours equal to its rating x 2.



# TECHNO TOOLS

Just because technomancers don't use as much high-tech gear as deckers doesn't mean they don't like to have new toys. Here are some tools they can bring with them to the field.

## NEW COMPLEX FORMS NEW FADE VALUE (HITS)

Some of the new complex forms have a Fade Value listed as "Hits." In this case, the Fade Value of the complex form is equal to the number of hits rolled on its related Electronics + Resonance test. This always refers to total hits, not net hits. You may intentionally reduce your total hits in order to limit fading.

### ARC FEEDBACK

Fade Value	Duration
3	5

When you thread this form, make an Electronics + Resonance test and record your total hits. If you suffer Matrix damage from a Data Spike Matrix action, Resonance Spike, or IC while sustaining Arc Feedback, the thing that hit you takes Matrix damage equal to the hits on your Electronics test. Once Arc Feedback deals damage, the complex form collapses and ends.

### ATTACK ATTRIBUTION

Fade Value	Duration
Hits	5

Target a willing persona and make an Electronics + Resonance test. As long as you sustain this form, the target gains an Attack Matrix attribute

equal to the total hits on your Electronics test. If the target already had a lesser Attack attribute, it is replaced by the Attack attribute provided by this form. The target under the effects of Attack Attribution cannot be affected by an Infusion (Attack) complex form. This persona may now use illegal Matrix actions that use the Cracking skill.

## BUBBLE SHIELD

Fade Value	Duration
Hits	5

Bubble Shield creates a protective Resonance barrier around one target, which must be connected to the Matrix. Make an Electronics + Resonance test and record your total hits. For every two full hits (round down), the target gains a bonus die on all tests to resist complex forms and sprite powers. While active, this complex form appears as a barely visible forcefield that randomly flares with glowing lines of code. Only an entity with a Resonance attribute is capable of observing it any further with Matrix Perception.

## BTL IRL

Fade Value	Duration
4	5

This complex form enhances the target's technological senses and stimulates their headware to create a heightened state of awareness, similar to how it feels to slot a BTL chip—but enhancing the target's real experiences. Besides enhancing pleasurable experiences, it tends also to amplify terrible ones. To establish this complex form, make an Electronics + Resonance test, with a threshold of 6 minus the target's Essence. The target must have some headware augmentations of some kind in order to be affected, and if they don't have any sensory augmentations (such as cybereyes, cyberears, olfactory booster, etc.), you may not gain or spend Edge on the Electronics test. The target receives a number of bonus dice on Perception tests equal to your net hits while BTL IRL is sustained, but they also receive a penalty on all Con and Influence tests due to their obvious state of distraction and the stigma attached to chipheads. The effects of this complex form are so similar to BTL chips that they satisfy a BTL addict's need for a fix. Chipheads are often willing to pay at least 100 nuyen per hour to be affected by this form, and many unscrupulous technomancers are marketing their abilities as a healthy alternative to using BTLs. They're wrong—it's just as bad as BTLs. If your target ever rolls a glitch, critical glitch, or a 1 on a wild die while under the influence of BTL IRL, this complex form collapses and ends, and the target takes 1D6 boxes of Physical biofeedback damage

that cannot be resisted, prevented, or reduced by any means. This damage lingers, and cannot be healed except through natural recovery.

## CYBER SPIKE

Fade Value	Duration
Hits	1

This complex form is the cyberware enthusiast's worst nightmare. While it doesn't truly cause the target's body to reject installed augmentations, it sure makes it feel like that's what's happening—and it can be just as fatal. Target a character who has at least one cyberware augmentation that has wireless mode enabled—or establish a direct connection to a target who has 'ware that isn't running wireless. If you attempt to use this on a target who doesn't have any vulnerable cyberware, your action is wasted. The more augmentations a target has, the more vulnerable they are. Make an Electronics + Resonance test vs. the target's Body + Essence (rounded down). The target suffers one box of Physical damage for every net hit against them (they may make a Body roll to reduce damage), and all of their cyberware becomes stressed as if from augmentation overdrive (p. 282, SR6) for one combat round.

## CYBERJACK OVERCLOCK

Fade Value	Duration
Hits	5

Target a persona that is using a cyberjack augmentation or cyberhack device. Make an Electronics + Resonance test. Each hit adds 1 to the Matrix Initiative of the targeted persona while this form is sustained. This adds to the static initiative number that you add your initiative dice to; it does not add extra initiative dice.

## CYBERWARE STAMINA

Fade Value	Duration
3	5

Target a character with augmentations. If the target's augmentations are not wireless-enabled, you must establish a direct connection via Skinlink or Aura Link. Make an Electronics + Resonance test with a threshold of 6 minus the target's Essence (round Essence down to the nearest whole number). While this complex form is sustained, the target's augmentations are immune to stress from augmentation overdrive (p. 282, SR6). The first time that your target is prevented from suffering stress from overdrive, this complex form collapses and ends (the stress is still prevented). If your target is already suffering from augmentation overdrive stress, it goes

away when this complex form takes effect, ending the complex form immediately after.

## DATA BOMB EATER

Fade Value	Duration
3	5

When you thread a Data Bomb Eater, make an Electronics + Resonance test and record your total hits. If you set off a Data Bomb while sustaining this form, the Data Bomb's rating is reduced by your total hits. If the Data Bomb's rating is reduced to zero or less, it is harmlessly eaten by the Resonance—in which case the file that was protected by the Data Bomb remains intact. After a Data Bomb Eater encounters a Data Bomb, the complex form collapses and ends.

## DATA DISGUISE

Fade Value	Duration
2	5

You can use this complex form to disguise any icon to make it appear to be different. This includes the type of icon such as persona, device, IC, file, sprite, AI, or anything else that you can think of, but also allows you to present false Matrix attributes, and even make it appear to be running specific software. Target an icon, make an Electronics + Resonance test, and record your total hits. Whenever the disguised icon is targeted with a Matrix Perception test, the results of that test will report only the information from your disguise unless the total hits exceed the hits you scored on the Electronics test. In that case, they see through the disguise and get the real scoop. This complex form can also be used to make it appear that a device that is not running a persona (such as a spare commlink) is actively running a persona.

## ENHANCE AUTOSOFTS

Fade Value	Duration
Hits	5

Target a device that is at least theoretically capable of running an autosoftware and make an Electronics + Resonance test. For every two hits, add one bonus die whenever a test is made using an autosoftware running on the device while this complex form is sustained.

## ENLIGHTEN AUTOMATON

Fade Value	Duration
Hits	5

Target a device with a Pilot rating that is not currently jumped into by any entity, and make an Elec-

tronics + Resonance test. You may increase either the Pilot or Sensor rating of the target by your hits, and you may split up your hits between Pilot and Sensors if you choose. Neither Pilot nor Sensor can be increased to more than double its original rating. Devices seem much more alert, active, and aware while under the effects of this complex form. They automatically pass any test required to understand complex orders or respond to chaotic situations. Sometimes they also show a little attitude and need to be convinced to carry out their orders. If a device affected by Enlighten Automaton rolls a glitch or critical glitch, a Con or Influence + Charisma test is required to convince it to follow its orders. This requires a Major Action, and the threshold for the test is the number of points the Pilot and Sensor ratings have been increased by. You can attempt this as many times as needed, but until convinced, the device will take no further actions. If you stop sustaining Enlighten Automaton, the device goes back to its normal behavior.

## HOST EMULATOR

Fade Value	Duration
6	5

Target a persona or IC within a host and make an Electronics + Resonance test vs Intuition + Firewall. If you score any net hits, the persona or IC is tricked into interacting with an illusion of the host they are in. The target's next Matrix Actions will automatically fail while the form is sustained, and the target will believe that its actions are successful. This illusion can only be kept up for so long before error-checking systems or the target's own intuition causes them to break free. Every time the target loses a Matrix Action to Host Emulator, if they score more hits than the net hits scored on your Electronics test, the complex form collapses and ends. The Matrix Action still fails, but the target realizes that it failed.

## IC PICK

Fade Value	Duration
4	1/S

Target IC running on a host and make an Electronics + Resonance test vs Host Rating x 2. The IC takes Matrix damage equal to your Attack attribute plus net hits. If you crash the IC using this complex form, its duration switches to sustained. As long as you sustain the complex form, the host cannot launch another instance of the type of IC that you crashed.

## MACHINE MERGE

Fade Value	Duration
Hits	5



Target a character with a control rig (or equivalent echo) and make an Electronics + Resonance test. For every two hits, the target gains one bonus die on Piloting, Engineering, and defense tests made while jumped into a vehicle or drone while this complex form is sustained. This bonus only applies on tests made to operate the vehicle or drone and its systems.

## MARIONETTE

Fade Value	Duration
6	5

This complex form is the street samurai's worst nightmare, allowing a technomancer to take control of a target's body through their augmentations. In order to be vulnerable to this complex form, a target must have at least one bodyware augmentation or cyberlimb that is connected to their nervous system. Inert ware such as bone lacing, dermal plating, and smuggling compartments don't count toward this, but wired reflexes, reaction enhancers, and skillwires do. Turning off wireless mode offers some protection against this complex form; in order to use it then, the technomancer must maintain line of sight with these targets and have the Aura Link echo. Targets who are

running in wireless mode are also vulnerable via the Matrix, in which case physical line of sight is not required. To use Marionette on a target, make an Electronics + Resonance test that is opposed by the target's Willpower + Firewall. If successful, note your net hits. You may use further actions to directly control the target's body. If they only have a cyberlimb, you can only take actions to control their cybernetic limb, but most bodyware augmentations allow control over the target's entire body. You must spend a Major and a Minor Action for each Major or Minor Action you force the target to take. This action must be a physical action that the target is physically capable of doing—their mind and emotions are not affected. Each time you force your target to take an action, reduce your total net hits by one. When all of your net hits have been used up, or if you stop sustaining it, the complex form collapses and ends.

If the target takes an action that requires a dice roll, use their normal dice pool, but no Edge may be gained or spent on the test. This complex form doesn't prevent them from moving of their own volition. On their own turn, the target may take their own actions. While you can use this complex form to force a target to take actions that are clearly detrimental to their well-being, such as attack themselves, jump off a nearby height, etc., it's not

an instant kill. If you force a target to harm themselves, they take base damage from whatever weapon they are using, with no dice roll to hit or increase damage with net hits. In the case of a fall, the target gets a chance to catch a ledge or something with an Athletics + Agility test. This complex form shouldn't be used for an automatic kill, but it can provide a decisive tactical advantage. Even among criminals, the thought of forcing someone to harm themselves with a power such as this is horrifying. Each time you use this complex form to cause a target to damage itself, add +1 to the team's Heat modifier at the end of the run.

Note that you could use this on a willing target with the goal of providing them with extra actions. No augmentations are truly designed to be used in this manner, so the target must still roll to resist. When using this form on a target with their consent, you gain a point of Edge that must be spent on the Electronics test, or it is lost. Even when used in these circumstances, actions forced by this complex form can neither gain nor benefit from Edge.

## PRIMED CHARGE

Fade Value	Duration
Hits	S

By channeling raw power from the Resonance through your living persona, you can powerfully boost a Matrix Action. When you thread Primed Charge, make an Electronics + Resonance test and record your total hits. The next time you take a Matrix Action or thread a complex form, gain a point of Edge for every two full hits you scored on your Electronics test. You may gain more than 2 Edge in this way, but after your Matrix Action or complex form is resolved (including resolving fading damage), you lose all of your remaining points of Edge—even Edge that was not granted by this complex form. Edge stored in a separate pool such as an M-TOC or Chase Pool is not drained by this. You may not use Primed Charge when your Edge pool is empty.

## RESONANCE WIRES

Fade Value	Duration
2	S

The ultimate defense, more powerful than any firewall, is to switch off wireless mode entirely, making you completely invulnerable to hostile Matrix Actions. Well, technomancers have a few workarounds for that problem. To use this complex form, target a device or character that you can see and make an Electronics + Resonance test with a threshold of 2 plus noise (if any). If you meet the threshold, you establish a remote direct connection to the device. If your target was a character, you

have a direct connection to any or all of that character's devices — even ones that have been turned off. The only thing you can do with a device that has been turned off is to turn it on, but this limitation doesn't apply to devices that just have wireless mode disabled. You can sustain this complex form for as long as you can maintain line of sight to the target. If you lose sight for longer than it takes you to blink, it ends immediately.

## RESTORE CONTINUITY

Fade Value	Duration
Hits	P

This complex form allows you to heal software with Matrix damage, including remote agents, artificial intelligence, Matrix fauna, and even IC. Make an Electronics + Resonance test, which restores one box of Matrix damage per hit. This has no effect on devices and sprites.

## SEARCH HISTORY

Fade Value	Duration
2	P

When you target a device using Search History, make an Electronics + Resonance test vs. Willpower (or device rating) + Firewall. If you score any net hits, you immediately gain a list of all Matrix Actions taken by the device within the past twenty-four hours for each net hit or since it was last rebooted (whichever is most recent). No specifics are included about the results of the Matrix Actions, but the targets of the Matrix devices are recorded. Only targets that were identified and recognized by the device will be identified by Search History.

## SLEAZE ATTRIBUTION

Fade Value	Duration
Hits	S

Target a willing persona and make an Electronics + Resonance test. As long as you sustain this complex form, the target gains a Sleaze Matrix attribute equal to the total hits on your Electronics test. If the target already had a lesser Sleaze attribute, it is replaced by the Sleaze attribute provided by this form. The target under the effects of Sleaze Attribution cannot be affected by an Infusion (Sleaze) complex form. This persona may now use illegal Matrix actions that utilize the Electronics skill.

## SMARTGUN AMPLIFIER

Fade Value	Duration
Hits	S

This complex form amplifies and enhances weapons systems. Target either an individual smartgun-equipped weapon or an M-TOC device and make an Electronics + Resonance test. The Attack Ratings of weapons connected to the M-TOC network (or the individually targeted weapon) are increased by the number of hits rolled on this test while the form is sustained. This only affects weapons with wireless-enabled smartgun systems.

## TECHNOREGENERATION

Fade Value	Duration
Hits	P

This complex form is the equivalent of a Heal spell for electronic devices. Target a device and make an Electronics (Hardware) + Resonance test. For every hit scored, restore one box of Matrix damage. This only works on devices, not IC, sprites, or other Matrix fauna. When a device has been repaired by this complex form, it tends to function erratically. When making any test using the device, replace one of the dice with a wild die until more thorough maintenance can be done (this requires one hour with an Electronics toolkit). Until this maintenance is done, the device cannot be repaired via technoregeneration again.

## THREAT ANALYZER

Fade Value	Duration
Hits	S

This complex form supercharges an M-TOC's combat defense algorithms. Target an M-TOC device and make an Electronics + Hardware test. For every hit scored, increase the DR of all characters and drones that are subscribed to the M-TOC. In order to receive this DR bonus, characters must either have DNI (a datajack or trodes will do) or have an image link and audio communication device so that they can see and hear the M-TOC's augmented reality overlay.

## UNRAVEL ENCRYPTION

Fade Value	Duration
Encryption Rating	P

This complex form allows you to remove a file's encryption without increasing your Overwatch Score and, assuming you succeed, without setting off any alarms. Make an Electronics + Resonance test vs. encryption rating  $\times 2$ . If you score at least as many hits as the encryption, it is silently removed. If the encryption wins by even one net hit, the host or device is alerted that someone is attempting to decrypt the file. This doesn't give away your persona, but it does tend to put a host or device on high alert.

## NEW ECHOES

**Aura Link:** You must have Skinlink in order to take this echo. You can wirelessly connect to devices as if using a direct connection, but only within a limited range. The range of your Aura Link is a radius from your physical body equal to your submersion grade in meters.

**Cyberadept:** You have begun to learn that your augmentations can be affected by your connection to the Resonance. Taking this echo unlocks the cyberadept quality path (p. 86).

**Data Structure Encoding:** You must have Skinlink in order to take this echo. You have learned to encode layered folds of Matrix and Resonance information into physical objects in order to create physical data structures. This is useful for hiding a file in a form that only someone with this echo will be able to access, but you have also learned to create data structures that harmonize with and reinforce aspects of the Resonance. In short, this allows you to create and integrate items that benefit technomancers in much the same way magicians make use of foci.

**Dissonant Scream:** Dabbling in the Dissonance, are we? Taking this echo doesn't make you a Dissonant technomancer, but that distinction might not be clear to anyone who witnesses you using it. You are able to channel and scatter Resonance energy to create a raucous, disruptive wave that interferes with Matrix activity. To activate this echo, use a Major Action and make a Resonance + Submersion Grade test. For every hit, increase Matrix noise within 100 meters of your physical body by one. You are also affected by this noise. No forms of noise reduction have any effect on noise generated by this echo. At the end of every combat round in which this echo is active, suffer fading with a Fade Value equal to the number of consecutive combat rounds it has been active. Your Overwatch Score increases by the number of hits scored on your Resonance + Submersion Grade test at the end of every combat round this echo is active. Deactivating this echo requires a Minor Action, but it deactivates automatically if you fall unconscious. After activating this echo, it may not be activated again until you have recovered from all fading damage. If you are observed using this echo by anyone outside your own team, add +1 to the Heat modifier at the end of the run.

**Hybrid Sprites:** When you compile a sprite, you can allocate net hits toward using this echo (instead of using those net hits to add more services). For each net hit you allocate in this way, you may provide the sprite with a skill or power that is normally only available to a different type of sprite that you know how to compile.

**Living Command Console:** You must have both Machine Mind and Living Network in order to take this echo. Your Living Network can also

function as an RCC with an effective device rating equal to your Resonance attribute. You can only run and share autosofts that are running on your living persona.

**Living Host:** You must have Transcendent Network in order to take this echo. By spending some time in deep concentration, gathering and forming what might only be described as Resonance power, you can transform your living persona into an equivalent of a host. This requires an extended Tasking + Resonance test with a threshold equal to your Resonance attribute and an interval of one hour. Once complete, you become a living host within the Matrix. Only a technomancer, sprite, Resonance or Dissonance entity that scores one or more net hits on a Matrix Perception test will realize that you are not a true Matrix host. While this echo is active, you have a host rating equal to your Resonance attribute, and your Matrix attributes are the same as your living persona. The number of devices that can be connected to you increases to your host rating  $\times 10$ , and you gain all the benefits of your Transcendent Network echo. You are able to generate an effectively unlimited number of virtual spaces, though they all must be connected to each other in some way. Personas can access you just as they would a host, with your permission or by hacking in. You can store an effectively unlimited amount of data, but files uploaded to your living host are only accessible while you have this echo active.

You can change the appearance and architecture of your Living Host at will, even to mimic the appearance of any host you have visited. While this echo is active, you cannot be targeted by Matrix actions, complex forms, or sprite powers, except as a host. This means you are invulnerable to a wide variety of actions that can normally target a persona, such as Data Spike or Resonance Spike. You must maintain a state of deep concentration and remain in one physical place while sustaining this echo. If you suffer more boxes of Stun or Physical damage than your Willpower attribute from a single attack, or if you are physically moved from your location by more than one meter, your concentration is disrupted and your Living Host violently collapses. You take 6 boxes of Physical biofeedback damage and suffer dumpshock. All devices are disconnected, and anyone visiting the host in VR suffers dumpshock. If you wish to shut down your Living Host without suffering dumpshock, you must make an extended Tasking + Resonance test with a threshold equal to your host rating and an interval of a Major Action to do so. A critical glitch on this test causes dumpshock. You are not capable of running IC, but cheer up — you've got sprites! Because you are not a true host, you do not actually have a Foundation of your own. No one quite knows what would happen if someone found a door to

the Foundation through a living host. Some believe that it might lead to a Resonance realm, but if anyone has tried to find out, they either failed or aren't talking about it.

**Machine Mastermind:** You must have the Machine Mind echo before you can take this echo. You gain the benefits of a rating 2 control rig. This echo is only selected once.

**Mega-Sprite:** You gain the ability to upgrade a registered sprite. This requires a special re-registration attempt. If successful, net hits do not provide additional services. Instead, you may use each net hit to either increase one of the sprite's Matrix attributes or provide the sprite with an additional sprite power that is normally only available to a different type of sprite. You can also upgrade an ally sprite or free sprite, with temporary results. When used on a free sprite or ally sprite, you require knowledge of their source code, and the effects last a number of hours equal to your Resonance attribute. When used on your own registered sprites, it lasts until the next time you attempt to re-register it.

**Matrix Amplifier:** If you spend a Major Action to activate this echo, you become a living conduit of Resonance that amplifies local Matrix connections. Your living persona and every device within 100 meters of your physical body gains a number of points of noise reduction equal to your submersion grade. This is incredibly taxing for you, though. At the end of every combat round, you suffer fading with a Fade Value equal to the number of consecutive combat rounds this echo has been active. Turning it back off again requires a Minor Action, but this happens automatically if you fall unconscious. This echo also alerts GOD. While this echo is active, your Overwatch Score increases by your submersion grade at the end of every combat round. After activating this echo, it may not be activated again until you have recovered from all fading damage.

**New Sprite Type:** You gain the ability to compile and register Assassin, Defender, Modular, and Primal sprites (see *New Sprite Types*, p. 72).

**Resonance Power:** You have learned something from the deep Resonance that allows you to use a single sprite power. You must specify a sprite power when you take this echo, and it can't be changed. You may take this echo multiple times, and you must choose a different sprite power each time. Use your Resonance attribute in place of sprite level, where applicable. Immediately after using a sprite power, you must resist fading with a fade value equal to the number of hits you scored on the test to use the power. If no test is required to use the power, the Fade Value is 3.

**Software Emulator:** You must have Living Network in order to take this echo. You are capable of running commlink apps, cyberprograms, and autosofts on your living persona. You have

(Resonance/2) program slots. The maximum rating for any program you are capable of running is 6, and you are incapable of running an agent on your Living Network. Before you can emulate a program, you need to acquire a copy of it to absorb. Absorbing a program consumes it, causing its complete deletion. This takes an extended Electronics (Software) test with a threshold of 4 or the program's rating, whichever is higher (or applicable), and an interval of one hour. If the test fails, you can try again. A glitch adds 2 to the threshold, and a critical glitch causes both failure and deletion of the program. If you succeed, you may spend 1 Karma to absorb the code into yourself. After that, you can run it whenever you like. It can be crashed, but you can always reload it with a Minor Action. These programs can never be permanently deleted from your mind. There is no limit to how many programs you can "learn" in this way.

**Sprite Conduit:** You are able to form deep bonds with sprites, and through these bonds you help register them into a more permanent form. You may permanently register sprites with great expenditures of time and Karma. When you do so, you may create either a free sprite or an ally sprite. The rules for this are in the following chapter, *Points of Sprite* (p. 72). Add your submersion grade in bonus dice to your dice pool on all fading resistance tests from compiling and registering sprites.

**Sprite Link:** Your mind is more closely linked to your sprites, which allows them to more clearly understand your commands. When you spend a task and a Minor Action to command a sprite to assist you in a Teamwork test using one of its skills, you gain a bonus Minor Action. With a Minor Anytime Action and the use of one task, you may transfer fading damage that you would suffer to one of your sprites. You may attempt to resist fading first, then transfer as many boxes of unresisted damage as you choose. Your Sprite Rep goes down by 1 every time you do this.

**Sprite Symbiosis:** You must have the Sprite Conduit echo in order to take this echo. You may merge your ally sprite into your persona in order to boost your own power. See *Points of Sprite*, p. 79, for the full rules on this.

**Syntax Error:** You've learned the secrets of countering and unraveling complex forms and sprite powers. When you are aware of a Matrix action that targets any icon that you are also aware of, you may spend a Minor Anytime Action to provide the target with bonus dice on their defense test. The number of bonus dice is equal to your submersion grade. If you are aware of a complex form or sprite power that is being sustained, you may attempt to reduce or cancel it. Make an Electronics + Resonance test with bonus dice equal to your submersion grade vs. Logic + Resonance. Re-

duce the net hits from the complex form or sprite power by one per net hit if you succeed. If this reduces the net hits to zero or less, the sustained form or power ends immediately. This requires you to take a Major Action, and you suffer fading damage equal to the number of hits scored against you (total hits, not net hits) on the opposed test after each attempt.

**Transcendent Network:** You must have the Living Network echo in order to take this echo. When your living persona functions as the master device in a network, you act as an advanced conduit for data traveling through you, able to parse and process data at a supermetahuman rate. This allows anyone connected to your network to benefit from information sharing similar to the effect of an M-TOC device. In order to benefit from this echo, each person must connect their commlink (or other persona-generating device) to your living network. All connected individuals have access to a special pool of Edge that is equal to your submersion grade. This Edge pool is empty when established, but any connected character can transfer their Edge to it on a one-for-one basis at any time. When a point of Edge is earned by a connected character, it may be transferred to the transcendent network without counting against the maximum Edge that can be earned each round. Edge from the transcendent network may be used on any Edge boost or action that benefits any character that is connected. If you also have an M-TOC system, you can make full use of it along with the benefits of the transcendent network. They do not clash with one another. Another benefit of this echo is that connected characters who use the Send Message action (a Minor Action) among themselves gain a bonus Minor Action immediately afterward. This often gives users the impression that they have a telepathic link.

## DATA STRUCTURES

Data structures are physical objects encoded with complex, multi-layered lattices of Matrix and Resonance information that technomancers can use to enhance their abilities. Most of these objects are created by their owner for their own use. Many technomancers would prefer that no one ever learns of the existence of such objects, but occasionally one gets lost or dropped, and there are some technomancers who are making and selling them as quickly as they can manage. If you have the right contacts and ask the right questions, you can find them for sale.

A data structure may be worked into almost any physical object. The process of encoding one occurs at subatomic levels, and no one truly understands how it is achieved. Data structures cannot be detected by any physical or astral observation but are immediately recognizable to anyone with

a Resonance attribute. The technomancer must touch the object throughout the encoding process, during which they fall into a deep state of meditative concentration for hours. Once complete, the data structure must be integrated by a technomancer before it can be used. Multiple technomancers can integrate the same data structure, but only one may use it at the same time.

## INTEGRATION

To integrate a data structure, a technomancer must physically touch the encoded object, spending a Major Action along with a number of points of Karma equal to its level. Once integrated, the technomancer may use the data structure as long as they are in direct physical contact with the encoded object. Integration is permanent and need never be repeated for the same object.

## ACTIVATION

Each time you wish to use a data structure, you must spend a Minor Action to activate it before taking the action that will gain the bonus. When activated, a data structure adds its level in bonus dice to a specific type of test. If you do not immediately take the action you activated the data structure for, the bonus is lost. While active, the data structure appears as a weird icon made up of dense code that vanishes before anyone can observe it using a Matrix Perception action.

## FADING

The potential variety of data structures is considerable, though their uses are specific, and they cause fading with each use. If you just use one data structure on a test, the fade value is equal to half the data structure's level (round up). If you use more than one data structure on the same test, all of the bonuses stack, but your fade value is equal to half of the total levels of all data structures used (rounded up). This is Stun damage unless it exceeds your Resonance attribute, in which case it becomes Physical.

If you use one or more data structures to gain a bonus on an action that causes fading, you resist fading from the data structure and the action individually, with a separate roll for each.

If a data structure provides bonus dice on multiple tests (such as on a complex form and the subsequent fading test), both bonuses result from a single activation, so you only take fading damage from using the data structure once — even though you gain the bonus dice twice.

## TYPES OF DATA STRUCTURES

**Admonisher:** Gain bonus dice on a test to decompile a sprite and on the resulting fading test. Gain a point of Edge whenever you score at least

one net hit on an attempt to decompile a sprite.

**Bandersnatch:** Gain bonus dice on a Spoof Command Action or Puppeteer complex form. If you use a Bandersnatch on a Puppeteer complex form, you also gain bonus dice on the fading resistance test.

**Code Shell:** May be activated with a Minor Anytime Action. Gain bonus dice on any roll to soak Matrix damage. If you use Code Shell against a Data or Resonance Spike, gain a point of Edge if you soak all of the damage.

**Data Blade:** Gain bonus dice on a Data Spike Matrix Action or Resonance Spike complex form. Gain a point of Edge whenever you crash a persona or IC while using a Data Blade.

**Drone Whisperer:** Gain bonus dice on any Matrix Action or complex form that targets a drone. Whenever you use Drone Whisperer to brick (fill up its Matrix condition monitor with damage) or hack a drone (Brute Force, Probe, or Backdoor Entry) and score at least one net hit, gain a point of Edge.

**Eavesdropper:** Gain bonus dice on a Snoop action or Static Veil complex form. When using a Snoop action that benefits from eavesdropper, you automatically count as having admin access level, and you do not generate any overwatch score from the Snoop action.

**Echo Chamber:** Gain bonus dice on any test to use an echo.

**Extra Life:** Gain bonus dice on a roll to soak biofeedback damage. If you resist all of the biofeedback damage while using Extra Life, gain a point of Edge.

**Grounding Rod:** May be activated with a Minor Anytime Action. Gain bonus dice to resist fading. If you fully resist all fading damage while using a grounding rod, gain a point of Edge.

**Logic Virus:** Gain bonus dice on any Matrix Action or complex form that targets IC. Gain a point of Edge if you score at least one net hit on a Matrix Action or complex form that targets IC, but only when you activate the Logic Virus for that action.

**Link Light:** Gain bonus dice on a Trace Icon action, and you automatically count as having admin access for that action. If you successfully trace a persona icon using a Link Light, gain a point of Edge.

**Master Key:** Gain bonus dice on a hacking action: Brute Force, Probe, or Backdoor Entry. Gain a point of Edge if you score at least one hit on the action that benefits from your activation of a Master Key.

**Meat Cleaver:** Gain bonus dice on a Data Spike Matrix Action or Resonance Spike complex form that targets a persona that is using VR mode. Your target suffers biofeedback damage—Physical damage if in hot sim, Stun damage if using cold sim—with a DV equal to your Attack attribute. Damage from a Meat Cleaver is not affected by net hits.

If you deal any Physical or Stun damage using a Meat Cleaver, gain a point of Edge.

**Oracle:** Gain bonus dice on a Matrix Perception or Matrix Search test. When you activate Oracle, all of your extended Matrix Search tests have an interval of a Major Action.

**Phase Shifter:** May be activated with a Minor Anytime Action. Gain bonus dice to resist any action taken by IC. If you score more hits than IC on an Opposed test when using a Phase Shifter, gain a point of Edge.

**Resonance Focus:** Gain bonus dice on any test that uses your Resonance attribute.

**Resonance Shield:** May be activated with a Minor Anytime Action. Gain bonus dice on defense tests against a Data Spike Matrix Action or Resonance Spike complex form. Doesn't help against IC or other sources of Matrix damage. If you completely resist all damage from a Data Spike or Resonance Spike after activating a resonance shield, gain a point of Edge.

**Sprite Caller (specify sprite type):** Gain bonus dice on a test to compile or register a sprite with the matching type. If you score at least one hit when using a Sprite Caller to compile or register a sprite, gain a point of Edge.

## CREATING A DATA STRUCTURE

You must have the Data Structure Encoding echo to create data structures. To create a data structure, you must first choose what type and level you want. Next, compile and register a data sprite with a level equal to the level of the data structure you hope to create. Then, with the assistance of the data sprite, you must enter a deep meditative state while in physical contact with the object that will be encoded. This object may be any object you wish, but may be no smaller than a stealth tag (which is really fragging small). Make a Tasking + Resonance Extended test with a threshold of twice the data structure's level and an interval of one hour. Gain bonus dice on each test equal to the level of your data sprite.

During this time, you are not aware of the physical world or Matrix but are hyper-focused on the encoding process. Only a violent shake or suffering damage will snap you out of the state. If this happens, the data sprite crashes (your Sprite Rep goes down by 1 as a result), the

test fails, and you suffer fading damage equal to twice the level of the data structure you had been attempting to create. The fading damage is physical if the Fade Value exceeds your Resonance attribute.

This also occurs if you get a critical glitch on any of the tests. Each glitch increases the threshold by 2. If you succeed at the Extended test, you must complete the process by spending a number of Karma equal to the data structure's level. This process consumes all of the services from your registered data sprite and causes the sprite to crash at the end.

Some technomancers believe that data structures are bound and transformed data sprites, but few agree with this. Whatever the case, sprites don't like being crashed, and your Sprite Rep goes down by 1 when it happens for any reason. If you choose to integrate it immediately, you may do so at no further Karma cost. If anyone else integrates it (or if you wait to integrate it later), they must pay Karma equal to the data structure's Karma cost to do so.

These rules assume that you are creating a data structure that provides a bonus. If you are encoding a stored file in an object, there is no Karma cost. It only requires one service from a registered data sprite and a Major and Minor Action while in physical contact with the object, with no test required (the Minor Action is required to command the sprite to assist, and the Major Action represents the actual encoding). Your data sprite is not crashed, and so your Sprite Rep does not suffer. Only someone with the Data Structure Encoding echo will be able to access the file, and even then they must physically touch the encoded object to do so. You may transfer any amount of data, but a separate action and service are required for each file. The file may never be deleted, except when the object is destroyed.

## PURCHASING A DATA STRUCTURE

The market price for a data structure is usually its level  $\times$  5,000 nuyen, but finding one for sale is difficult. You must have a contact with the Matrix and Resonance types with a Connection and Loyalty rating equal to or greater than the level of the data structure you wish to purchase. In order to integrate the data structure, you must also pay its Karma cost.



# POINTS OF SPRITE

This chapter provides more options for sprites, starting with new types of sprites.

## NEW SPRITE TYPES

More variety has been observed among the denizens of the Matrix, and sprites are no exception. Some may believe that these are simply variants of known sprite types, but it seems much more likely that we will be seeing greater variety among sprites as more of them come into being. In order to compile or register any of these new sprite types, a technomancer must take the New Sprite Type echo.

### ASSASSIN SPRITE

Some of the most vindictive technomancers have learned to compile sprites that match their disposition. These sprites are stealthy and violent, capable of dealing biofeedback damage to personas instead of merely crashing them.

A	S	D	F	INIT	RES
L + 3	L + 2	L + 1	L	(L x 2) + 1 + 4D6	L

- Skills: Electronics, Cracking
- Powers: Death Mark, Phantom

### DEFENDER SPRITE

Defender sprites are the perfect fit for the role of Matrix overwatch. They make highly effective bodyguards, capable of shielding others from Matrix threats.

A	S	D	F	INIT	RES
L	L+1	L+2	L+3	(L x 2) + 1 + 4D6	L

- Skills: Electronics, Cracking
- Powers: Shield, Stability

## MODULAR SPRITE

Modular sprites are extremely versatile, capable of adapting to any required task.

A	S	D	F	INIT	RES
L + 1	L + 2	L + 1	L + 2	(L x 2) + 1 + 4D6	L

- **Skills:** Electronics, Engineering, Cracking
- **Powers:** Choose any one sprite power. You may change the power to a different one at the cost of 1 task. Swapping out for a different power requires the sprite to take a Major Action. You can swap powers as often as needed, but doing so uses up a task each time. The task does not cover actually using the power, but if the sprite is already in the process of following orders, it does not require an extra task to command it to use its new power within the context of its current instructions.

## MUSIC SPRITE

Some technomancers consider the Resonance to be a thing of harmony, and they use concepts of music and art to relate to its mysteries. Music sprites are artistic and creatively expressive, reflecting the experiences and perspectives of the environment and entities they encounter.

A	S	D	F	INIT	RES
L	L	L + 4	L	(L x 2) + 4 + 4D6	L + 1

- **Skills:** Electronics, Con (Performance only)
- **Powers:** Captivate Audience, Harmonize

## PRIMAL SPRITE

Primal sprites are chaotic and mysterious entities compiled by technomancers who have trained their minds to imprint almost none of their own selves onto their compiled sprites in an effort to avoid “corrupting” the wild Matrix with metahuman expectations. Such sprites tend to take bizarre forms that are difficult to look at for long, and they communicate using unusual non-verbal (or non-text) means. Classic modem screams seem to be a popular choice for them. With their reliance on unclear communication techniques, primal sprites can be difficult to command. They've been known to seem to completely ignore instructions and go about things in their own strange ways—whether they're actually trying to follow orders and failing or just being obstinate is impossible to discern. There are reasons other than ideological ones for compiling them, though. Primal sprites

tend to be quite powerful and capable, so dreck gets done—when they actually do follow orders.

A	S	D	F	INIT	RES
L + 3	L + 1	L + 3	L + 1	(L x 2) + 3 + 4D6	L + 1

- **Skills:** Electronics, Cracking
- **Powers:** Digital Scream, Fractal Dream

**Special Rules:** Whenever a primal sprite makes any test, add a wild die to its dice pool. If the wild die rolls a 1, the sprite will stop following orders and apparently act at random. It will not take direct actions against the technomancer who compiled it, but these things have been known to start brickling friendly devices and crashing allied sprites and personas. They usually just wander off and do something else, though. Getting a distracted primal sprite back on track requires two tasks—one to cancel the current state of affairs and another to give it a new command. If you ever try to give complicated orders to a primal sprite, the sprite must make a comprehension test. Roll its level x 2 with a threshold of 3 (or more, if the gamemaster decides that the orders are incredibly complex) add a wild die. If the wild die rolls a 1, the sprite misinterprets orders and behaves randomly.

Primal sprites are incompatible with the Sprite Affinity quality or any other quality for which Sprite Affinity is a prerequisite. They are an eligible choice for the Sprite Bane quality, however.

## NEW SPRITE POWERS

### CAPTIVATE AUDIENCE

Complex, overwhelming, yet beautiful and entertaining simsense signals surround the sprite. The sprite makes a Con (Performance) + Resonance test and records the total hits. Personas using VR mode within 100 meters of the sprite may attempt to resist independently using Intuition + Firewall. Characters who have a knowledge skill related to art or music are more vulnerable and cannot gain or spend Edge to resist this power. Agents, IC, and personal assistant commlink apps are entirely unaffected, as are any devices that are not running a persona, but sprites are just as vulnerable as characters with artistic knowledge skills. Anyone who does not fully resist the sprite must pay twice the number of points of Edge for all Edge Boosts and Actions for a number of combat rounds equal to the sprite's net hits. This applies to all actions, not just Matrix Actions. Jacking out or switching to AR ends the effect immediately. This power can not be used while running silently on the Matrix.

## DEATH MARK

The Death Mark power signals a sprite's intention to murder somebody. The sprite targets a persona that is using VR mode and makes a Cracking + Resonance vs. Intuition + Firewall Opposed test. If the sprite succeeds, the target gains a disconcerting and mysterious bulge, sore, or wound on their persona. They become link-locked, unable to use the Switch Interface Mode or Hide Matrix Actions, and they require an Opposed test to Jack Out (p. 182, SR6). It gets worse. If the target takes Matrix damage from any source, they also suffer an equal number of boxes of biofeedback damage—Physical damage if using hot-sim VR, Stun damage if using cold-sim. If the sprite directly damages the target, it deals a number of extra boxes equal to the net hits scored on the initial Cracking test. The Death Mark disappears when the sprite stops sustaining it or the target jacks out or reboots.

## DIGITAL SCREAM

The sprite sends out a wide burst of complex noise that is perceived by everything connected to the Matrix within 100 meters. The sprite makes an Electronics + Resonance test, and the area becomes affected by noise equal to the number of hits rolled. This fades at the beginning of the next combat round, and once it ends, everything that perceived the scream receives a single file. This file must be provided by the technomancer that commands the sprite as part of the Minor Action required to command it, and it may include encryption and/or a data bomb if desired. This power cannot be used while running silently on the Matrix.

## FRACTAL DREAM

The sprite targets a persona or IC and makes a Cracking + Resonance test vs. Intuition + Data Processing. If the sprite scores any net hits, the target vanishes from the Matrix, trapped within a bizarre hot sim experience in the Resonance for one combat round for each net hit—even if their device has no hot sim capability. This causes IC to crash, but other than wasting their time, it doesn't harm personas. Some who have experienced this describe having a religious experience, and some latent technomancers have had their Emergence triggered in this way, but most have no words or understanding of the indescribable strangeness. If someone is physically disconnected from the Matrix while trapped in the fractal dream, they will suffer severe dumpshock, taking 8 boxes of biofeedback damage as well as receiving the Zapped and Dazed conditions for one minute per box of damage taken.

## HARMONIZE

The sprite generates tones, images, and sensations drawn from the Resonance and surrounding Matrix, perfectly harmonizing with the environment and entities there. The sprite makes a Con (Performance) + Resonance test. Matrix noise within 100 meters of the sprite is reduced by the sprite's hits. Even if the source of noise has a rule that it can't be reduced or negated by any means, this sprite power overcomes that limitation. Anyone within 100 meters who can experience the sprite's performance, whether through AR or VR, or even on speakers and trid projectors, is positively affected. Any test made to heal an affected character gains bonus dice equal to the sprite's hits on the performance test. This includes natural healing, first aid, medkits, healing magic, and even complex forms. Any character making repairs gains the same number of bonus dice on their Engineering or Electronics tests to fix Matrix or Physical damage. Sprites, AI, and other Matrix fauna are even more strongly affected, automatically healing one box of damage at the end of every combat round.

## SHIELD

The sprite focuses all of its attention and effort toward locating and intercepting Matrix hazards. For one task, this power protects a number of icons, personas, or devices up to its Resonance attribute. A sprite can only maintain one instance of the shield power. Anything under the shield's protection gains the sprite's Resonance attribute in bonus dice to all Matrix defense tests, as well as Opposed tests against complex forms and sprite powers. If a target takes Matrix damage while under the effects of the Shield power, that Matrix damage is suffered by the sprite instead. If a sprite takes damage due to sustaining Shield, your Sprite Rep goes down by 1 unless it is a Defender sprite.

## NEW SPRITE COMMANDS

Technomancers tend to be creative, so it's no surprise that new uses for sprites are discovered with time. Each of these new commands is specific to one or more types of sprite, which means they can only be used with a sprite of the matching type. These commands only work with registered sprites—newly compiled sprites just don't seem to have the juice.

All of these commands are available to modular sprites. None of them are available to primal sprites.

## COURIER SPRITE TASKS

**Signal Boost:** You can tell your courier sprite to enhance your Matrix connections, reducing noise by its Resonance for one combat round per level.

This command is also available to defender sprites.

## CRACK SPRITE

**Host Ken:** At your command, your crack sprite can provide assistance on any Matrix action or complex form that targets a host or IC, adding its Resonance attribute in bonus dice to your test.

## DATA SPRITE

**Hyperthreading:** If you ask your data sprite to help you thread a complex form, add its Resonance to your dice pool on your threading test.

This command is also available to music sprites.

**File Ken:** You can request assistance from your data sprite on any Matrix action that targets a file, adding its Resonance attribute as bonus dice on your test.

## FAULT SPRITE

**Cybercombat Boost:** You can tell your crack sprite to crank up your Data Spike Matrix action or Resonance Spike complex form, adding its Resonance to your Matrix damage.

This command is also available to assassin sprites.

## MACHINE SPRITE

**Device Ken:** You can request assistance from a machine sprite on any Matrix action or complex form that targets a device to gain its Resonance attribute in bonus dice on your test.

## SPRITE REP

No one really knows who's keeping tabs, whether it's the Resonance, the sprites themselves, or a technomancer's own conscience, but word seems to get around about which technomancers treat their sprites well and which ones don't. Any technomancer capable of compiling and registering sprites (which is pretty much all of them) begins with a Sprite Rep of 0, which is neutral. Certain things can cause your Sprite Rep to improve or decline. When one of your sprites runs out of tasks with an undamaged Matrix condition monitor, your Sprite Rep has a chance to go up. Sprites seem to enjoy using their powers. Once per session, when one of your sprites successfully uses one of its sprite powers at your orders, your Sprite Rep might go up. Additionally, once per session, if



you use a complex form to aid a sprite, your Sprite Rep has a chance to go up.

Whenever your Sprite Rep has a chance to go up, roll 1D6 and add your submersion grade. If this total exceeds your current Sprite Rep, it goes up by 1. If the total is equal to or less than your Sprite Rep, it stays the same.

If you cause a sprite to crash, whether through your own actions or by a sprite acting on your commands, your Sprite Rep goes down by 1. If one of your own sprites is crashed, your Sprite Rep goes down by 1. The exceptions to this are fault sprites (who don't really seem to mind the experience) and Dissonant sprites (who don't count, as far as the rest are concerned).

Sprites begin to chafe after repeated registrations and long service. Each time you re-register a sprite after the first, reduce your Sprite Rep by 1. Just to be clear, you may compile a sprite, register a sprite, and re-register a sprite once with no effect to your Sprite Rep—it's only the second re-registration and beyond that has a negative effect. If you order your sprite to take on a long-term task, reduce your Sprite Rep by 1 after every twenty-four hours passes. If one of your sprites runs out of tasks and has six or more boxes of damage filled on its Matrix condition monitor, your Sprite Rep goes down by 1.

## POSITIVE SPRITE REP

If you have a positive Sprite Rep, gain a point of Edge whenever you compile or register a sprite with a level equal to or less than your Sprite Rep. This Edge may be spent on the test or saved for later.

No Edge may be gained or spent on behalf of any sprite's test made against you if that sprite's level does not exceed your current Sprite Rep.

## NEGATIVE SPRITE REP

If you have a negative Sprite Rep, you may not gain or spend Edge on any tests to compile, register, or otherwise interact with any sprites. Reduce the maximum level of any sprites you are capable of compiling or registering by your Sprite Rep if it is negative.

## ATONEMENT

Once your Sprite Rep sinks too low, it becomes difficult to build it back up through normal means. Whenever your Sprite Rep is a negative number, you may spend one week in special meditations, running obscure errands for free sprites, compiling low-level sprites and treating them very nicely, etc. When you do this, you may spend Karma on a one-for-one basis to increase your Sprite Rep, up to a maximum of zero.

You may also attempt a run on a Resonance Realm to atone, if you'd rather risk your life than spend a few Karma.

## DISSONANCE AND SPRITE REP

Dissonant technomancers do not gain the benefits of a positive Sprite Rep, as most sprites are uncomfortable near them. A Dissonant technomancer does not suffer the drawbacks of a negative Sprite Rep when dealing with sprites that are the preferred type for their Dissonance aptitude. For rules on Dissonant technomancer player characters, see *Shadow Cast* (p. 79).

## SPRITE TEAMWORK

A technomancer can have only one unregistered sprite, but multiple registered sprites can be assigned to work together on the same task. This allows you to issue the same command to multiple sprites with a single Minor Action. When working together on a task, sprites may use Teamwork tests to improve their chances. Every sprite involved in a Teamwork test must possess the relevant skill (usually Electronics or Cracking). If multiple sprites have the same power, the dice pool for any test required for the power may benefit from a Teamwork test. Most Teamwork tests are skill tests, but this still works exactly the same way even though only attributes are used. In this case, the maximum number of bonus dice the leader sprite can gain from Teamwork is its level. If multiple sprites use teamwork on a hacking action, all sprites involved in the Teamwork test gain access if the action is successful. If there are negative consequences from a teamwork-assisted action, all sprites involved in the Teamwork test suffer the same consequences as the leader.

You can also request Teamwork assistance from your registered sprites. This takes one Minor Action regardless of how many sprites you wish to include, and it requires a task from each sprite involved in the Teamwork test. In order to help, the sprites must have the same skill as the one you are using on the test. If the Teamwork test assists a hacking action, your sprites gain the same access level that you achieve. If there are negative consequences, your sprites suffer them as well.

Sprites are particularly effective at assisting technomancers with threading complex forms. If you request Teamwork assistance on a complex form, the sprite provides its level in bonus dice on your Electronics skill test. These count as dice gained from a Teamwork test, and so the maximum number of bonus dice you can benefit from is equal to your ranks in Electronics. You must use a Minor Action to command the sprite before threading the complex form.

# PERMANENT SPRITE CREATION

Many technomancers become attached to their sprites, registering them over and over again, refusing to allow them to return to the Resonance. Unless you keep up with registering a sprite so that it never runs out of tasks, it ultimately returns to the Resonance. Perhaps it continues to exist there or ceases to exist until compiled once more. No one truly knows, and the sprites don't seem to have any answers they're willing to share. Only the most determined technomancers devote their efforts and abilities into the permanent registration of a sprite, creating either a free sprite or an ally sprite. This takes a lot of time and Karma, and it requires the Sprite Conduit echo.

Whether you're trying to register a free sprite or an ally sprite, most of the steps are the same:

1. Get the source code: Design the sprite, choosing its type, level, skills, powers, echoes, and complex forms. Create the source code or acquire it from a Resonance Realm.
2. Compile and register the sprite. Its level and type must match the source code.
3. Bind the source code to the sprite, sealing their permanent registration.
4. Either form a bond with the sprite to gain an ally sprite or release the sprite into the Matrix as a free sprite.

## STEP ONE: GET THE SOURCE CODE

The source code is a special Matrix file encoded with deep layers of Resonance information. For a sprite, it's like DNA. It determines and defines almost everything about the sprite. Before acquiring the source code, design the sprite. First, choose the type of sprite, which must be a type of sprite that you are capable of compiling and registering. Then, choose the sprite's level and start tallying the sprite's Karma cost, which starts at its level  $\times$  2. The Karma cost will be increased by additional choices, but you don't pay any Karma at this step. Just add up the total cost for later reference. The maximum level that you can permanently register is your Resonance attribute. The next step is to choose the sprite's powers.

The sprite automatically starts with all of the standard powers for its type. You may add powers from other sprite types for 1 Karma cost each. The maximum number of powers (including the standard powers for its type) equals the sprite's level. The sprite automatically comes with the skills

listed for its type. You can provide the sprite with additional skills at the cost of 1 Karma for Knowledge and Language skills, Electronics, Cracking, and Engineering, and 2 Karma for any other skill. Sprites may not learn Tasking. If you are creating the source code yourself, you must possess the skill or an activesoft, knowsoft, linguasoft, or autosoft with ranks or a rating equal to the sprite's level for each added skill. In the case of a knowsoft or linguasoft, there is no rating requirement. If you rely on software for this, it is not deleted or consumed in the process — you just need it handy while you encode the source code.

If you wish the sprite to know any complex forms, choose any number of complex forms that you know, at the cost of 1 Karma each. There are some echoes that sprites can learn as well: Living Network, Matrix Attribute Upgrade, Overclocking, and Resonance Link. If you know one of these echoes, you may pass its knowledge to your sprite's source code for 1 Karma cost each. Note that if you are not creating the source code yourself, you are not required to possess the skills, complex forms, and echoes. But getting source code from a Resonance Realm is a very dangerous task that few are willing to attempt.

Add up the total Karma cost for the sprite. There are two ways that you may acquire the source code: make it yourself or acquire it from a Resonance Realm.

The rules for going on a Resonance Realm run are on p. 156 of this book.

## CREATING THE SOURCE CODE

To create the source code yourself, you must meet the following requirements:

1. You must have at least as many ranks in Electronics (Software) as the sprite's level.
2. The sprite's level may not exceed your Resonance attribute.
3. You must meet all skill requirements for any added skills.
4. You must know any complex forms or echoes that are included.

Next, make a programming test with a threshold equal to the total Karma cost, and an interval of one hour. This delicate process must occur all within the same session, regardless of its duration. If you take a break or critically glitch, it collapses, and you must start over. Each glitch increases the threshold by 2. Once this grueling task is complete, the unique, Resonance-encoded file is stored within your living persona. This file is the sprite's unique source code, and it may not be copied or transferred. It may only be read and edited by you.

## STEP TWO: COMPILE AND REGISTER

You must first compile then register a sprite with the type and level that matches the source code. You may rest between compiling and registering the sprite. If you suffered any fading after compiling, you should rest up. You may not rest up after registering the sprite until this process is concluded without having to start over.

## STEP THREE: PERMANENT REGISTRATION

You must have the Sprite Conduit echo in order to go any further in this process. Immediately after the registration is successfully completed, you may use the source code to permanently register the sprite. This requires a second successful registration action, with no breaks to recover from fading. You may take a break between compiling and registering the sprite, but not between the registration and permanent registration actions. If you succeed (only one net hit is necessary), you may choose to seal the registration. In doing so, you transfer the source code into the sprite, and you must pay the Karma cost from your own available Karma, with a discount of 1 Karma if you have the sprite affinity quality that matches the sprite's type. Once this Karma is paid, the source code is transferred to the sprite. You still possess knowledge of the source code, but the mysterious, Resonance-encoded file passes from you and into the sprite. The source code is unique to that specific sprite and cannot be reused to permanently register another sprite. Each act of permanent registration requires a new source code—even if the type, level, and other abilities are identical.

## STEP FOUR: RELEASE FREE SPRITE OR BOND ALLY SPRITE

If you wish to create a free sprite, all you need do at this time is release the sprite. It becomes its own entity, free to go about life in the Matrix and Resonance as it chooses. The memory of its source code remains in your mind.

Why would you want to do this, you might ask? Well, for some people, it's enough just to create something new and release it into the world. But there are benefits to having friends.

When you create and release a free sprite, your sprite rep goes up by its level.

You also gain a new free sprite contact with the Matrix type, with a Connection rating equal to the sprite's level and Loyalty rating equal to your Resonance attribute.

The free sprite may come to you for upgrades, as you are one of the few people in the world capable of doing so. It is capable of advancing in other ways, but none are as easy as having your help. A free sprite is willing to provide any assistance it is capable of in return for such an act.

However, a free sprite may also become aware that they are vulnerable to you, should you choose to abuse your knowledge of their source code. If your sprite rep ever sinks to the negative equivalent of the free sprite's level, it may choose to act against you in order to neutralize a perceived threat to its existence.

If you ever abuse the free sprite's source code, it ceases to be your contact and will attempt to either avoid or destroy you.

## ALLY SPRITE

If you do not already have an ally sprite, you may choose to forge a bond with the now-permanently registered sprite. This requires a number of hours equal to the sprite's level, with no time allowed for rest. Then you may bond it as an ally sprite by paying its Karma cost again from your own available Karma. If you have the sprite affinity quality that matches the sprite's type, you get a discount of 1 Karma.

## UPGRADING A FREE OR ALLY SPRITE

If you know a sprite's source code (usually acquired by creating it or visiting a Resonance Realm), and the sprite is willing, you may upgrade it. You may upgrade a sprite's level or provide it with new skills, powers, complex forms, or echoes. You must meet the same requirements as when creating the source code. This process requires an extended Tasking (Registering) + Resonance test with a threshold equal to the sprite's level (using the sprite's upgraded level, if applicable), and an interval of one hour. The Karma cost for any upgrades is doubled and must be paid for by you.

## TEAMWORK

Multiple technomancers can work together to create or upgrade a free sprite. This works as a Teamwork test, and the Karma costs may be paid by any technomancer involved in the process. In order to participate, every technomancer involved must have the Sprite Conduit echo. All technomancers involved in creating or upgrading a free sprite gain the same benefits, such as an improvement to Sprite Rep, and gaining a new free sprite contact. Only one of the technomancers needs to possess knowledge of the source code. A free sprite can share its own source code with anyone it chooses to, but doing so represents an extreme

(and perhaps unwise) level of trust. A technomancer cannot normally convey knowledge of a source code to anyone else, even if they created the source code themselves.

Teamwork may not be used for any step of creating an ally sprite.

## SPRITE SYMBIOSIS

A technomancer may choose to create a symbiotic bond with their ally sprite. This requires a positive sprite rep, an ally sprite, and the Sprite Symbiosis echo. To form a symbiotic bond, the ally sprite merges with the technomancer's living host. This requires a Minor Action from the technomancer and a Major Action from the sprite, and it provides the following benefits while sustained:

The technomancer's Matrix attributes are increased by the same amount that a sprite with the same type as your ally sprite adds to their level

on its statblock. The technomancer gains (ally sprite's level/2) bonus dice on skill tests for which the sprite has a matching skill. This counts as a Teamwork test. The technomancer can use any of the ally sprite's powers, using their own skills and Resonance attribute for tests (with the Teamwork bonus dice mentioned above). If the technomancer takes Matrix damage, it is suffered by the ally sprite instead.

While using sprite symbiosis, the ally sprite is undetectable except to entities with a Resonance attribute. The only ways in which the ally sprite can be affected while in symbiosis is by damaging the technomancer's living persona.

The symbiosis ends if the technomancer falls unconscious, the ally sprite is crashed, or if the technomancer uses a major action to end it willingly. Extricating itself requires all of a sprite's attention, and it will not be able to act until the following combat round.





# QUALITY HACKING

Hackers come at their work from a variety of angles and approaches. This chapter has qualities to help players define their hacks exactly the way they want them to be.

## POSITIVE QUALITIES

### AT HOME IN THE MATRIX

You feel truly at home in the Matrix, as if you were born to be there.

- **Cost:** 15 Karma
- **Game Effect:** Whenever you are using hot sim VR mode, you may gain one more Edge per combat round than normal. Usually characters are limited to gaining only two points of Edge per round.

### BRILLIANT HEURISTICS

You have a special knack for efficiently focusing your processing power.

- **Cost:** 10 Karma
- **Game Effect:** If you spend a Minor Action to prepare and calibrate your available processing power immediately before taking a Matrix Action, add half your Data Processing attribute (round up) as bonus dice on the test. If you do not immediately take a Matrix Action after doing this, the bonus is lost. This quality may only be used by a persona running on a cyberdeck.

### DATA ANOMALY

When you don't want to be noticed on the Matrix, you know a few extra tricks that help you stay hidden.

- **Cost:** 5 Karma

- **Game Effect:** When you are running silent, gain a point of Edge whenever a Matrix Perception attempt is made in order to spot you or any icons in your network.

## DATA HAVEN MEMBERSHIP

You have access to a few data havens and maintain a regular presence on them. Your username is known and respected by many, loathed by some. This comes in handy whenever you need to find information that is otherwise hard to come by.

- **Cost:** 5 Karma/Level
- **Game Effect:** For each level of this quality, you have access to an underground Matrix data haven where info brokers, fixers, and shadowrunners store and share illicit data and trade secrets. When you need to make a Matrix Search to find information about a topic that is kept hidden from the public, gain a point of Edge. More detailed and thorough information is available, per GM discretion, but you aren't the only one that uses the data havens. If you make use of this quality on a run, add +1 to your team's Heat modifier.

## DECK BUILDER

Your custom cyberdeck is never finished, because there's always room for more upgrades!

- **Cost:** 6 Karma
- **Game Effect:** When you spend Karma to build or upgrade your hardware, each point of Karma is worth 5,000 nuyen (instead of 4,000). Any hardware that you build yourself (by spending Karma instead of nuyen for every component) is more modular than usual. You may use the Reconfigure Device Matrix Action to swap your Matrix attributes when using a custom cyberdeck or cyberhack that you built.

## FADE TO BLACK

When trouble finds you in the Matrix, you get a thrill out of giving it the slip.

- **Cost:** 3 Karma
- **Game Effect:** If you successfully use the Hide Matrix Action, gain a point of Edge.

## FRACTAL BLAST

Some hackers depend entirely on their Attack attribute, but you know how to boost your Data Spikes using sheer mathematics.

- **Cost:** 9 Karma
- **Game Effect:** When you spend a Minor Action to focus your processing to boost a Data

Spike action, increase the base DV of your Data Spike by half your Data Processing attribute (round down). If you don't immediately follow the Minor Action with a Data Spike action, this bonus goes away. This quality may only be used by a persona running on a cyberdeck.

## GOLDEN SCREWDRIVER

Whether using a screwdriver or a soldering iron, you are a hardware wizard.

- **Cost:** 5 Karma
- **Game Effect:** When you make a test to repair Matrix damage, the interval on the Extended test is 10 minutes (instead of 1 hour).

## HACKER COMBO

You've practiced a sequence of actions in the Matrix to the point that they feel like one action.

- **Cost:** 10 Karma
- **Game Effect:** Choose two specific Matrix actions. You may take these actions together using a Minor and a Major Action. Each time you use the combo, you may choose which of the two Matrix actions is resolved first. You may take this quality multiple times, allowing you to learn more combos.

## HOLD THE DOOR

You have learned to share illegal Matrix access levels with other personas.

- **Cost:** 9 Karma
- **Game Effect:** Whenever you gain illegal user or admin access, you may share that access with a number of additional personas equal to the net hits scored on the test. You may only grant access to personas that willingly accept it, which requires a Minor Anytime Action from the recipient. If you give illegal admin access to a persona that doesn't have a Sleaze attribute, their Overwatch Score increases by 2D6 at the end of every combat round.

## ICU

You get a thrill out of spotting hidden icons on the Matrix.

- **Cost:** 3 Karma
- **Game Effect:** When you successfully spot an icon that is running silent, gain a point of Edge. This only applies when it is relevant to the story—just cruising around town spotting random icons doesn't gain you any extra Edge from this quality.



## IMPENETRABLE LOGIC

Your quick and adaptable sense of logic helps you identify attack patterns and potential threats.

- **Cost:** 7 Karma
- **Game Effect:** When you use Full Defense, use your Logic attribute in place of Willpower.

## JACK JOCKEY

You know how to take advantage of a direct connection.

- **Cost:** 11 Karma
- **Game Effect:** When you have a direct connection to a target of your Matrix Action or complex form, you gain some key advantages. First, no Edge may be gained or spent on behalf of the defense test against you. Second, the target does not gain the protection of any Firewall that is provided by an external source (such as a PAN)—only its own Firewall applies to its defense test. Third, if the target is powered off, you may use a Control Device action to turn it on.

## LONER

You work better on your own, at least in the Matrix. It's nice to have other people on a team to cover the other aspects of a run, but you prefer not to have anyone looking over your shoulder.

- **Cost:** 5 Karma
- **Game Effect:** Whenever you are using AR or VR mode and do not have an agent program running, any sprites compiled or registered (including ally sprites and sprites on standby), and no SimShare hitchhikers, you're filled with a sense of freedom, focus, pride, and mastery. Gain a wild die on all of your tests for Matrix Actions and complex forms, and ignore when that particular wild die rolls a 1—it doesn't add any hits, and still counts toward glitches, but doesn't take away three hits as normal. Other wild dice provided by other sources still work normally.

## MATRIX ATTRIBUTE ADVANCEMENT

You have become extremely good with some aspects of the Matrix or have found unconventional ways to enhance your persona.

- **Cost:** 15 Karma/level (max level 3 per Matrix attribute)
- **Game Effect:** Choose a Matrix attribute: Attack, Sleaze, Data Processing, or Firewall. This Matrix attribute is always increased by the level of this quality. This increase applies

to Matrix attributes after any swapping is done—it does not move with the attribute if a decker changes them around. You may take this quality multiple times in order to advance multiple different Matrix attributes. This quality is available to any character, including deckers, technomancers, or even street samurai who just want a more powerful Firewall. The increased rating of the Matrix attribute counts as its unaugmented rating for the purpose of being further boosted by complex forms, cyberprograms, and other means of increasing Matrix attributes.

## NATURAL HACKER

You use your innate connection to the Resonance to get things done in the Matrix. It's all you need.

- **Cost:** 15 Karma
- **Game Effect:** Whenever you take a Matrix action or a defense test against a Matrix action, complex form, or sprite power, you may choose to use your Resonance attribute in place of any other non-Matrix attribute used on that test. You may not replace Attack, Sleaze, Data Processing, or Firewall with Resonance using this quality.

## ONLINE FAME

Your persona is widely recognized in the Matrix. Oddly enough, this works in your favor more often than it gets in your way.

- **Cost:** 3 Karma/level (max level 6)
- **Game Effect:** Whenever you make an Influence or Con test while in the Matrix, gain a number of bonus dice equal to the level of this quality. If you use this quality during a run, add +1 to your Heat modifier at the end of the run. This Heat modifier increase only affects you, so it is possible for you to gain personal Heat while your fellow runners do not.

## PROFILER

You are good at gathering and compiling information about people for future reference.

- **Cost:** 7 Karma
- **Game Effect:** You can build a profile on any person. This requires a Matrix Search test with a threshold of 6 and an interval of 1 hour, followed by a programming test with a threshold of 6 and an interval of 1 minute. This interval cannot be reduced by any means—even by using an oracle data structure. Once complete, the profile is perma-

gent—we can assume that you spend a few minutes here and there keeping your stored profiles up to date. The profile contains all the basic information the GM might provide as the result of successful legwork efforts, but it's also useful when interacting with the individual. When you have a profile on someone, you gain a point of Edge on any Con, Influence, or Judge Intentions tests made against them. This Edge must be spent on the test or banked into the profile. Each profile can store up to 6 points of Edge. This Edge may only be used by you, and you may only use it on Edge Boosts and Actions made against the target. Edge from the profile can be spent on any kind of test against the profile's target—not just Con, Influence, and Judge Intentions. Any Edge stored within a profile goes away at the beginning of the next session when Edge refreshes.

## QUICK CONFIG

You're very good at recalibrating your cyberdeck on the fly.

- **Cost:** 3 Karma
- **Game Effect:** When you take the Reconfigure Matrix Attribute action, you can swap any number of Matrix attributes and programs around with a single Minor Action. If you are in a cybercombat or combat situation, once per round you gain a point of Edge when you use the Reconfigure Matrix Attribute action.

## REVERBERANT

Some people seem to have a sense for the Resonance, even if they can't use it themselves.

- **Cost:** 5 Karma
- **Game Effect:** With a successful Matrix Perception action, you are capable of detecting and analyzing things in the Resonance that normally can only be perceived by entities with a Resonance attribute.

## SATISFACTION

Curiosity may have killed the cat, but you know what brought it back, don't you?

- **Cost:** 3 Karma
- **Game Effect:** When you successfully crack encryption or defuse a data bomb on a file, gain a point of Edge. This doesn't apply if the encryption or data bomb has been placed solely for you to get an Edge using this quality—you only get the point of Edge when it counts, per gamemaster discretion.

## SURGICAL STRIKE

You have a talent for subtly hacking into hosts.

- **Cost:** 11 Karma
- **Game Effect:** The Overwatch Score increase from having illegal user or admin access to a host occurs once per minute instead of once per combat round.

## VOIDER OF WARRANTIES

If you spend some extra time with an off-the-shelf device, you can make some unorthodox improvements.

- **Cost:** 13 Karma
- **Game Effect:** If you have the relevant toolkit, you can take any factory-manufactured device and improve it with an extended Electronics (Hardware) + Logic or Engineering + Logic test with a threshold equal to its Device Rating (or 4, whichever is higher) and an interval of 1 hour. The device receives a number of “upgrade points” equal to your Logic attribute. Any time you take an action using an upgraded device, you may spend an additional Minor Action to engage the upgrades and add one wild die for every upgrade point you spend. Upgrade points go away after they are spent. If any of those wild dice roll a 1, the device stops working after the action is resolved. If all of the upgrade points are spent, the device stops working in the same way. In both cases, getting the device to work again requires another extended Electronics or Engineering test as above, but with an interval of 1 minute. This restores functionality, along with a number of upgrade points equal to your Logic attribute. This cannot be used on devices that generate a persona, such as a commlink, cyberdeck, or RCC. Augmentations, drones, and vehicles are also ineligible for upgrades. Per gamemaster discretion, any other device (including weapons) can be modified. Just to be clear, using this quality on any device voids the manufacturer’s warranty.

**Note:** You should prepare a few lines of handy technobabble to describe how your weird science boosts the equipment you upgrade with this quality. You don’t have to, but it will be much more fun for everyone if you do.

## NEGATIVE QUALITIES

### ACHILLES' HEEL

Whether or not you know it, there’s a certain kind of damage that you are especially vulnerable to in the Matrix.

- **Bonus:** 12 Karma

- **Game Effect:** Choose one: Data Spike actions, Resonance Spike complex forms, Resonance entities, or IC. Whenever you suffer Matrix damage from the specified source, you may not reduce the damage with a soak roll. If you are a technomancer, your registered (and ally) sprites share your vulnerability. You may only choose this quality once.

## BINARY MENTALITY

Some people are good at some things and not others, and that’s just the way it is—or so you believe. Your mindset limits your capabilities.

- **Bonus:** 10 Karma
- **Game Effect:** Choose either Electronics or Cracking. You believe that no matter how much you try, you’ll never quite get the hang of that skill. When using the specified skill for Matrix Actions or complex forms, you may not use Edge Boosts and Edge Actions that cost more than 2 points of Edge.

## BUDDY SYSTEM

You don’t feel safe enough to concentrate clearly without someone to watch your back.

- **Bonus:** 7 Karma
- **Game Effect:** Whenever you are alone, you may only gain a maximum of one Edge per combat round. If you are in astral space, only astrally active allies are considered company for the purpose of this quality, but a summoned spirit is all you need to prevent the penalty. If you are in VR mode, only allies in the Matrix with you make you feel less alone, but having an agent program or sprite nearby, or even a SimShare hitchhiker, is enough to prevent the penalty.

## BULL IN A CERAMICS STORE

You are the hacker equivalent of a combat monster, reveling in Matrix destruction.

- **Bonus:** 8 Karma
- **Game Effect:** You may not gain or spend Edge on Matrix actions and complex forms that do not have the potential of causing Matrix damage. Brute Force hacking is the one exception to this.

## COMPULSIVE ARCHIVIST

You’re the data equivalent of a pack rat. Loath to delete anything, you keep incriminating files on your devices far longer than is wise, and instead of deleting them you back them up on offline data

chips and stash them away in hidden caches. You almost never refer back to these files, but the very thought of deleting or destroying them seems incredibly wrong to you. Inevitably these files get found by someone, whether a random hacker digging through your 'link for paydata or a curious individual who finds one of your caches—it's a matter of when, not if.

- **Bonus:** 8 Karma
- **Game Effect:** Whenever the gamemaster makes a Heat roll at the end of a run, your personal Heat modifier is increased by +1 for every full 50 total points of Karma that you have earned (rounded down). Unspent Karma from character creation does not count toward this total. This Heat modifier only applies to you, so it is possible that you might gain personal heat while your fellow runners do not.

## CURIOSITY KILLED THE CAT ?

When a file is protected, you become fixated on gaining access to it.

- **Bonus:** 5 Karma/Level (Max Level 3)
- **Game Effect:** If you discover a file that is encrypted or protected by a data bomb, you may not gain or spend Edge on any tests except those made to crack the encryption, defuse the data bomb, and access the file. If you leave the file alone, after each hour passes you may make a Composure test with a threshold of  $2 +$  the level of this quality. If you succeed, you may let it go, in which case you may gain and spend Edge normally. After each failed test, you gain a bonus die on future Composure tests to overcome your curiosity, with no limit to how many bonus dice can be gained in this way other than time and lots of bad dice luck. But why not just see what's behind that file protection?

## DATA LIBERATOR

You have a strong, driving personal value that data should be made public, or at least the data that powerful people want to keep secret.

- **Bonus:** 2 Karma
- **Game Effect:** You may not gain or spend Edge on any test related to selling valuable data, and you may not participate in a Teamwork test for the same purpose. If you release valuable data with the approval of anyone who participated in the run in which you acquired it (which usually involves compensating them with nuyen or favors), you and everyone on your team who did not request compensation gains one bonus Karma. This

Karma award only applies once per run, and only if the value of the data is worth at least 5,000 nuyen.

## DEFECTIVE ATTRIBUTE

There's just something about you that makes one of your Matrix attributes less effective.

- **Bonus:** 7 Karma
- **Game Effect:** Choose a Matrix attribute: Data Processing or Firewall. No matter what device you use—even if you have a living persona—that Matrix attribute can never be boosted by cyberprograms, complex forms, echoes, or sprite powers. You may not take this quality more than once.

## LIKE A BOSS

You consider yourself a professional hacker with finesse, and disdain the crude, brute force approaches.

- **Bonus:** 5 Karma
- **Game Effect:** You may neither gain nor spend Edge on any test that has the possibility of inflicting Matrix damage.

## MODE LOCK

Whether it's AR mode, cold sim VR, or hot sim VR, you have a clear preference. Those who prefer cold sim VR have probably seen the effects of biofeedback damage on someone they cared about, or perhaps had their own brain fried once or twice. If AR is your preference, you are most likely an on-the-go sort of hacker who dislikes losing awareness of their physical surroundings. Hot-sim VR is the preference for hackers who go all-in when it comes to the Matrix. Whatever your reasons, you find using any mode other than your preferred one unwieldy and distracting.

- **Bonus:** 7 Karma
- **Game Effect:** Choose a preferred mode: AR, cold sim VR, or hot sim VR. Unless you're using your preferred mode, you may not gain Edge on any Matrix actions, and the cost of any Edge actions and Edge boosts to assist your Matrix actions is doubled.

## PROGRAM DEPENDENCY

You've become superstitiously attached to the use of a specific cyberprogram, most commonly Baby Monitor.

- **Bonus:** 2 Karma
- **Game Effect:** Choose a cyberprogram. Whenever your cyberdeck is not running that cyberprogram, you become fixated on

its absence. For each combat round that you wish to take any Matrix actions other than using reconfigure device to load the cyber-program, you must first take a Minor Action to focus.

## SIMSENSE DEPENDENCY

You slotted one too many BTL chips. Okay, more than one too many. Or maybe your brain got fried real bad by some bad IC. Now you feel out of place when experiencing life through your own senses. When you are not using simsense in some way, you start having problems.

- **Bonus:** 16 Karma
- **Game Effect:** When using hot-sim VR, you feel fine. Cold-sim VR is almost as good—though you can still spend Edge, you can't gain any. This doesn't prevent your Edge from refreshing at the beginning of a session. AR mode helps you get by when you have to move around in meatspace, but it doesn't feel good. While in AR mode, you can neither gain nor spend Edge on Matrix actions. Any Edge actions or boosts on non-Matrix actions cost 1 more point of Edge than usual. When you can't even run AR mode, you're in a bad way. You start to get the shakes, and everything starts to seem unreal. Until you can get back to using AR or VR mode, you gain the Dazed condition. Awakened characters cannot take this quality.

## RESONANCE BURN (EMERGED-ONLY)

Fading always hurts real bad, to the point that you are incredibly careful to avoid it.

- **Bonus:** 13 Karma
- **Game Effect:** Whenever you suffer fading damage, it is always Physical damage.

## SLOPPY CODER

You write code fast, but you cut corners. Fixing bugs is not something you waste your time doing.

- **Bonus:** 3 Karma
- **Game Effect:** Whenever you make a programming test for any reason, reduce the interval to half the normal time. Any time the program is used, it causes a glitch regardless of how many 1s are rolled. A critical glitch causes the device running the software to reboot, unless it is being run on a host, in which case the host deletes it instead.

## WANTED BY GOD

Your persona is on GOD's most wanted list. You might not be number one, but you are working your way up the leader boards.

- **Bonus:** 5 Karma/level (max level 4)
- **Game Effect:** Your maximum overwatch before convergence occurs is 5 lower per level of this quality. This means that GOD converges on you when your Overwatch Score reaches 35 at level 1, 30 at level 2, 25 at level 3, and 20 at level 4. When you are converged on, the first response is a high threat response team that treats you as an extreme threat. If you take any illegal Matrix Actions during a run, increase your Heat modifier by the level of this quality at the end of the run. This Heat modifier only applies to you, so it's possible for you to gain personal Heat while your teammates do not.

## QUALITY PATH: CYBERADEPT

Most technomancers avoid augmentations due to the effect of Essence loss on their connection to the Resonance, but cyberadepts take a different approach. They draw deep connections to their augmentations, some would say infusing them with Resonance energy and making them more alive than their biological components could ever be. Some of the first who tried to walk this path went too far and lost touch with the Resonance, but others found eventual success. The initial price of becoming a cyberadept is high. There are real reasons technomancers avoid Essence loss, and until you become truly attuned with the Resonance and the path of the cyberadept, your powers will suffer. Some would say it's worth it. What will your assessment be when the time comes to look back and count the cost against what you've gained?

## RISKING BURNOUT

If your Resonance ever gets to zero, you cease to become a technomancer forever. The grade improvements from this quality path remain, as does the grade requirement for any further augmentations, but you may not take any more qualities in the cyber-adept path. Many such burnouts turn to transhumanism (p. 146, *Sixth World Companion*).

## CYBERADEPT NOVICE

You have begun to accept your augmentations as part of your identity, not just as things added to your body. To become a cyberadept, you must first acquire some augmentations and then submerge to truly begin the path. For your first submersion,

you must take the Cyberadept echo (p. 67). Once you have done so, you may purchase this first quality in the cyberadept quality path at its listed Karma cost (not double, as per normal character advancement).

- **Cost:** 10 Karma
- **Game Effect:** Whenever you use augmentation overdrive (p. 282, SR6), you may re-roll the accompanying wild die once. The result of the re-roll is final, so maybe you shouldn't re-roll unless you get a 1. Well, it's up to you. I warned you.

If any of your augmentations are standard or used grade, their grade effectively increases by one grade. Used grade becomes standard, and standard grade becomes alpha. You gain an Essence hole equal to the amount of Essence cost reduction caused by the changes in the grades of your augmentations, which is used for future implants before further Essence loss is applied. Because technomancers are primarily biological in nature, even bioware augmentations can be affected by this quality. This comes at a price—any new augmentations must be alpha grade or better, or else your body will reject them. The next time you raise your Resonance attribute, it only takes one minute—you must still pay the required Karma cost.

## CYBERADEPT DISCIPLE

As you improve your connection to your augmentations, the desire to get more installed increases. Further augmenting yourself is a necessary step on the path to becoming a cyberadept, but you risk destroying your connection to the Resonance if you acquire too much.

- **Cost:** 10 Karma
- **Game Effect:** When you have lost 2 or more Essence, you may take this quality at its listed Karma cost (not double). You must have Cyberadept Novice and the cyberadept echo in order to take this quality. All of your alpha-grade augmentations become beta grade, and your standard-grade augmentations become alpha grade. This creates an Essence hole, allowing you to get more augmentations installed before losing more Essence. Any further augmentations you receive must be beta grade or better, or else your body rejects them. You may channel Resonance through your augmentations, bolstering them in a way similar to augmentation overdrive. By spending a Minor Action and concentrating, you increase the effective rating of one of your augmentations by your Resonance attribute. Sustaining this requires concentration and counts as if you are sus-

taining a complex form—though there is no complex form that can be perceived or targeted by anyone except yourself.

At the end of every combat round, resist fading with a Fade Value equal to one half your Resonance attribute (rounded up). This ability cannot improve an augmentation's rating any higher than double its normal rating and does not allow you to improve augmented attributes higher than their augmented maximum. You can only use this on your own augmentations, and only on one augmentation at a time. Unlike with augmentation overdrive, there is no added wild die or chance of cyberware stress. It may also be used on bioware. The next time you raise your Resonance attribute, it only takes one minute—you must still pay the required Karma cost.

## CYBERADEPT MASTER

Your augmentations have become accustomed to the Resonance.

- **Cost:** 10 Karma
- **Game Effect:** After you have lost 3 Essence, you may take this quality at its listed Karma cost (not double). You must have cyberadept disciple and its prerequisites in order to take this quality. All of your beta-grade augmentations become delta grade, and your alpha-grade augmentations become beta grade. This creates an Essence hole, allowing you to get more augmentations installed before losing more Essence. Any further augmentations you receive must be delta grade or better, or else your body rejects them. Your augmentations have become so well adapted to your body and your living persona that they are difficult for others to notice or affect, even when running with wireless mode on. Add your submersion grade to your Defense Rating and dice pool for any Matrix defense test on behalf of your augmentations—including resisting a Matrix Perception test to stay hidden. The next time you raise your Resonance attribute, it only takes you one minute.

## CYBERADEPT TRANSCENDENT

Resonance has helped you achieve what technology can only hope to unlock one day: gamma grade augmentations.

- **Cost:** 25 Karma
- **Game Effect:** After you have lost 4 Essence, you may take this quality at its listed Karma cost (not double). You must have Cyberadept Master and its prerequisites in order to take this quality. All of your augmentations become gamma grade, regardless of their current

grade. When you receive a new delta grade augmentation, it takes time for you to properly adapt and integrate it. While your new augmentations are adapting, they do not provide any bonuses for being wireless-enabled, but they must be wireless-enabled nearly the entire time. If you deactivate wireless mode for more than one minute at a time, reset the timer for integration. It takes a month to properly integrate a new augmentation, at which time it upgrades to gamma grade. If your augmentations are ever removed, they are useless to anyone else—even as used grade. Whenever you raise your Resonance attribute, it only takes you one minute. This only applies when raising your Resonance attribute up to 6. Raising it to 7 or higher requires the normal required amount of time to improve.

## QUALITY PATH CREATION

Quality paths are a collection of qualities arranged to help explore a character's narrative arc. Sometimes they have multiple branches, but with the cyberadept example above, they can also represent a linear progression. There are so many useful qualities in SR6 and more stories to tell than we could ever imagine, so why not hack a quality path to help tell the story you want to tell?

### HERE'S HOW IT WORKS:

First, come up with a theme for your quality path. This might be a special title that your character aspires to, like “white hat decker,” or “gunslinger technomancer.” Or it might represent narrative themes or events, like “Dissonance redemption arc” or “death of a data haven.” Give your quality path a name that represents this collection of ideas in some way.

Next, pick a starting point. What begins the path? Normally, there is a narrative requirement, like succeeding at a particular task during a run, but game mechanics requirements work, too—such as the Essence loss requirement for cyberadept. This requires collaboration with your gamemaster. Share the themes and ideas with them, and with their assistance and approval, set the prerequisite for the quality path. It shouldn't be too difficult to achieve, but probably shouldn't be something your character already has covered. Ideally, your gamemaster will provide you with an opportunity to satisfy the prerequisite within the next few game sessions.

The most significant advantage in terms of game mechanics is that when you acquire a positive quality through a quality path, it normally doesn't cost double its Karma cost. If the gamemaster has concerns about game balance issues with a particular quality choice, they can leave the Karma cost doubled.

Now pick out the qualities that match the quality path. Put them in an order of progression that fits your theme. Each one represents another step on the quality path. Share these ideas with your gamemaster, and they may suggest some as well. Your gamemaster may also choose to suggest alternates, or even disallow some qualities for this purpose, to fit their campaign. However, most gamemaster suggestions should work, as long as it's clear that you aren't just trying to throw together some good qualities with little care for the story.

At their core, quality paths are storytelling structures that set up the reasons and assign greater meaning to qualities, justifying them within the greater narrative. They shouldn't be used just to get a Karma discount on the qualities you want.

If you include one or more negative qualities within a quality path, the bonus Karma should be limited to being used to purchase positive qualities within the path. Alternatively, a quality path need not be a positive arc—it might represent a series of setbacks or tragic events, and how the character copes (or fails to cope) with them. In this case, the bonus Karma for the negative qualities is held in reserve until some narrative events are resolved, after which the character has the opportunity to buy off the negative qualities at a discount or spend the bonus Karma gained from them freely.

### EXAMPLE QUALITY PATH CREATION: THE DECKMEISTER

Let's design a quality path for characters who build and customize their own hacking hardware. The narrative theme is clear, and the title “The Deckmeister” fits nicely.

For the starting point, it makes sense that the character will need to construct a cyberdeck component using their skills, a tool shop, and paying with Karma instead of nuyen.

Now for the qualities: Analytical Mind and Juryrigger seem like they might fit, but let's get more specific. Deck Builder, Golden Screwdriver, Quick Config, and Voider of Warranties all seem like a good fit. As for potential negative qualities, Gear Acquisition Syndrome from the *Sixth World Companion* (p. 137) seems perfect.

Now it's just a matter of putting them in order. Deck Builder and one level of Gear Acquisition Syndrome can come together for the first step, for a net Karma cost of zero. Perhaps the next step is Golden Screwdriver, which requires you to spend at least 5 Karma on building cyberdeck components after you received the previous quality in the path. After another 5 Karma spent in this way, you can take the next step: Quick Config. The final step allows you to take Voider of Warranties without paying double its cost, but you also have to take two more levels of Gear Acquisition Syndrome (which provides 10 bonus Karma to pay for the positive quality).



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# UNION FOREVER

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POSTED BY: GRAMIUS

- After the **Collapsing Now** upload revealed the existence of the Shadow Chapters, I asked around for information regarding the state of organizations within the Matrix. I needed a few sides of this, and these three came up with what I was looking for. Many of you have seen Rikki's work percolating for a bit now, and Gramius helped with the **Emerald City** and **Double Clutch** uploads. Nybbles was introduced elsewhere recently.
- Glitch

The idea of online gangs and guilds goes back to the gaming servers of the late twentieth century. With the discovery of the otaku, the term "tribes" was added as an evocative term describing their association. That term has now shifted to technomancers, and to them it reflects the bond they feel as they gather together.

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## STRENGTH IN NUMBERS

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Not just every group of users is automatically going to work out. There is a need for some form of underlying connectivity. By now, it is safe to say that everyone knows what gangs, syndicates, rings, corporations, churches, nations, and of course cults are. In the magic world, there are circles, gatherings, schools, lodges, and more to serve much of the same purpose. Similar social structures exist in the Matrix. We're going to give you the lowdown on some of these groups, what they have in common, and why some of them have come together.

Out here in the Matrix, especially if you are talking about the wild and free Matrix, you have to investigate the makeup and goals of a group. Why'd they form? Who can join? Can I join? What do they do? Whatever happened to being anonymous? Anyone who has run in the shadows long enough can tell you that the Awakened members

of a team, especially the magicians, have their groups and go by a dozen different names in an attempt to help them self-identify. And like the magical groups, they go by any number of self-labeled classifications like *circle*, *lodge*, *coven*, etc. For this upload, I'd like to focus on two kinds of groups.

## EMERGENT GROUPS

These are what most people think of when they ask what the makeup, goal, and resources of a group are like. Emergent groups have a direct and intimate association with the Resonance. At their core, these groups are made up of technomancers, be they Resonant or Dissonant. It ultimately doesn't matter.

- Don't tell them that. The flame wars! Bricked devices as far as the eye can see ...
- The Smiling Bandit

Emergent groups differ from other groups in that they are composed of Resonant individuals and beings, such as sprites and technomancers, to help achieve their full potential. These groups may appear very similar to an initiated group of Awakened, and even include policies that a member must adhere to remain within the group's good graces, but they can suffer repercussions when they go against the strictures of the group. Only Emergent groups can aid their members through the rigors of submersion and provide real support.

One additional belief that makes these groups stand out from their mixed-type cousins is their ability to open a Resonant Rift to the realm of their group's symmetry. Oh, and it's possible for an Emergent group to be nestled within a mixed-user group (keep reading).

## SYMMETRY

Key to the formation of an Emergent group is the achievement referred to as Symmetry. All Emergent groups must find and retain Symmetry if they are to gain the full group benefits. This includes both Dissonant and Resonant technomancers. Emergent groups have specific strictures that go above and beyond what other organizations may have to help them unite to pursue their goals. Symmetry is detailed in full in the Game Mechanics section of this chapter (p. 100).

## MIXED-USER GROUPS (MUGS)

These are what most people associate with a group in the Matrix. Deckers, hackers, AIs, monads, and yes, even technomancers and sprites. It is entirely possible for a mixed-user group to have within it

an Emergent group, as I said earlier. The biggest deal here is that non-resonant individuals cannot partake of the full benefits of the tighter inner group, and it is not uncommon for cliques and offshoots of these organizations to spring up and form smaller, newer, or even just more radical subsets from the original. Sometimes, especially with the exceptionally larger organizations, several smaller groups come together under a larger, unifying umbrella. The Walking People are an example of this.

- Unifying? Have you ever played **Allies & Enemies** before? Everyone is happy as long as the overarching goals or agendas all line up. The instant there's a shift, or someone pees in another one's Beeros at breakfast, there's fragmentation faster than the old soft memory cores used to crash.
- Red Anya

MUGs have the advantage of being able to attract members more easily. It is not uncommon, and may in fact be in the majority here, but MUGs also tend to be shorter-lived unless their internal politics somehow gift them with fortitude other groups may not have. It's also true that most of these often resemble a street gang in the way they form or behave. Larger ones tend toward either very structured leadership, with smaller cells taking up the cause of the primary group in their home grids, or they have extremely loose leadership structures, which make them both harder to target by corporate and national enforcement agencies and extremely fluid in their operations, with smaller financial reserves to draw upon.

- Everyone wonders what's so good about joining a Matrix group. The Matrix is, for the everyday J.Q. Publican subscriber, a place of information—workout routines, daily soap operas and sim-novellas, work-from-home security, and so on. For everyone else, it's a place to find oneself locked in a virtual loop until the Star or the security contractor show up at your proverbial doorstep. Groups can help divert trackers, IC, and all sorts of other pursuers. Other members of the group know people you probably don't know. Groups can help find a doss or a safehouse where you can lie low and let the heat cool off. They also can share certain programs, especially Firewall and Sleaze utilities, to help keep people from being found in the first place. And if you're one of those types who digs into places where the megacorps don't want you, the benefits of someone else knowing what you don't just get better and better.
- Netcat

## SURVIVING VETERANS

These groups have been around for quite a while. A few of them even have roots in the pre-Foundation Matrix. Those listed below are

still around, still doing their thing—and a few of them even offer a valuable service or two.

## DENVER COLLECTIVE

POSTED BY: PERRI

The Denver Collective is a tough and tidy group of people determined to keep the Front Range Free Zone and all its containing elements well informed from the shadows, and keep it outside the vice-like grip of the White Wyrm. The goals of this tight group remain, for the most part, unchanged from years past. Recent events in the Mile-High City caused some shift in their overall focus. The core of the group is its leadership, with Perri serving as the central spokesperson.

› For those of you who have not kept up with the latest events in Denver: There were some shenanigans back in February '82, while Ghostwalker was distracted, including the Nexus being targeted and attacked. Some weird, secret corporate project, run by MCT, catastrophically failed and led to a manastorm that hurt a lot of people in the city. Even more concerning, this experiment also triggered a massive failure of devices in the Matrix, focused on the Colorado National Bank. I suspect the latter event is still under investigation by the Denver Collective.

› Sim-Eon

Although in the past, they were first and foremost the administrators of a major data haven, now the Denver Collective focuses more on supporting the FRFZ shadows and helping move important and sensitive data to other secure locations, as well as just keeping their own hides intact.

› The DC is not the same thing as the Nexus, or Denver Datahaven, and I want to help Perri clarify this. The Nexus has a larger body than just the DC and has more people than the Collective's own small and tight-knit family. The full staff of the Nexus is not just the Collective members and includes individuals such as Sparrow and Nix, who serve as fully empowered staff, none of whom are Emergent but all of whom are capable of laying down the skills to keep surviving. The Collective and the Nexus have been put through a dreckload of crap over the years, and Perri's doing her damnedest to keep things working smoothly. This is all a lot tougher after recent events, which included one of their safehouses nearly getting blown up with several important individuals within.

› Bull

## HACKER HOUSE

Hacker House is a pre-Crash 2.0 software and engineering site to which many owe thanks for custom programming. The site was originally founded by the Three, and the first twenty or so staff did not exhibit any otaku-like capabilities. Hacker House was believed lost in the aftermath of the Jormungand virus, and in truth, nearly half of their

## THE DENVER COLLECTIVE

**Members:** 8

**Type:** Emergent

**Group Connection Rating:** 7 (sprawl-wide scope, limited resources, no Awakened, significant Matrix, well-connected)

**Host Rating:** 7 (8/9/7/10) (Foundation)

**Restrictions:** Community (Fraternity), cannot be a vassal of Ghostwalker.

**Perks:** The DC is one of the most respected and talked-about Matrix groups of the twenty-first century. As such, in times of great need, a member of this group in good standing while searching for assistance with any category of goods or services may do so as if the Group Connection Rating is two points higher than it actually is. They also gain a bonus point of Edge when performing tests related to the Connection rating.

**Patronage:** All members work to benefit the organization and its resources. The DC operates within the overall structure of the Nexus, with Perri serving as the lead administrator to the Nexus. The Collective is able to pull resources from the Nexus in the form of a small stipend equaling 500 nuyen a month to go toward expenses of its members. This is in addition to access to the Nexus hosts, as the Nexus can afford those related shadow resources without risking its security or operational goals.

**Gamemaster Note:** These statistics are for the Denver Collective, which is the Emergent group of technomancers who are central to the operation of the Nexus Datahaven. They are not a reflection of the Nexus, which can be found highlighted on p. 176 of the **Sixth World Companion**. These statistics include the DC Well, which is their own host separate from the Nexus.

host staff was taken down during that time. When the surviving data havens came back online, there remained no sign of the customizers or their hosts. Of course, rumors of their survival persisted, and in truth, some of the people from HH were alive and working where they could. Through the entirety of the '60s, the remaining cabal of programmers took their work further into the underbelly of the emerging wireless initiative, doing what they wanted well away from Danielle de la Mar's widening Matrix reforms.

The group and their resources re-established quietly in the growing wilds of the Foundation-based Matrix, but they were also mirroring their work in deeper recesses of the older places of the hardware-based Matrix. In silence, their numbers returned, and they found newer places to continue their work. To be an actual member of the organization, one must display the skills and understanding of older protocols and software, along with current addressing, and they must stay apprised of advancing technologies and trends.

They now coordinate their activities within a restructured wild host, beyond the reach of the

Global Matrix Initiative. If you encounter the host at all, it will appear as a bi-directional coiling serpent of myriad colors encircling a structure within. Accessing the Wyrmgate, as it is called, will test your abilities and skills, ensuring that if you can enter, you can understand what is within and contribute to it as well. The tests are not easy, and failure means you will find yourself immediately relocated somewhere else within the Matrix. How this last part is done is unknown at this time. If you merely wish to speak with a member of the group, you can make an appeal at the Wyrmgate, with said appeal relayed to the party you are seeking.

The group still offers services such as software and coding specialists, but only to those unaffiliated with any corporate agency. Anyone seeking to approach them who has a corporate SIN will find their demeanor cold at best, hostile at worst.

- Hey, time for cool knowledge. Within their host, it's wild. It's like an ever-moving library with desks and nooks allowing legit access. If you can find it, an index of everything they have does exist, but using it directly is for members only. I've been allowed to research content I didn't believe existed outside of the megas and their black sites. They are sticklers now, and defensive too, but if you play fair with them, they possess a wealth of coding information.
- Beaker
- Entry is not easy. Those challenges are tough, and delivered to you by the deepest, most scintillant, dragon-type visages I've seen. It kind of reminds me of the challenges at the Reflecting Pool or Event Horizon, but much more focused. But if you don't pass the test, the thing winks at ya, and you're just ... elsewhere. The second time I tried, I found myself at the entry host to the Spin Cairo offices.
- Facet

Membership into Hacker House is granted only to those who show strong proclivity for coding and cracking. This is about more than just coding a nice little agent for your street sammie to play Pong with. Upgrading software for cyberware, new custom hacks to get into special hosts, forms that can scan a person's surface thoughts while hot-jacked in—those are the kinds of things required to be a member here. Membership is otherwise unrestricted—you can be a hacker, rigger, techno, AI, EI, whatever, it doesn't matter. Restrictions only seem to be limited to anyone following a Dissonant paragon or anyone with megacorp citizenship.

- A word about their host, while we're at it. There have been some very real, and even successful, attempts at crashing it. But it doesn't dump folks out like others do. No, instead, if it crashes, everyone connected to it at the time is taken with it when they are sucked down into the Singularity that **always** manifests



when it crashes. The host re-initializes somewhere else in the wilds of the Foundations, along with everyone and everything that was connected at the time. No one understands how this happens, and after it happened twice, once in '79 and again in '81, it remains baffling—but somewhat reassuring, too, I suppose.

➤ Gramius

➤ They once had a catalog host back in the day, where you could browse and purchase their stuff. Those days are long gone. Everything now is through a connection. If you don't know someone in HH, then you need to. Some fixers have connections, of course—all the best ones do. Prices for more common stuff are usually market, but anything and everything custom often means they want something very uncommon as payment, and not just lots of cred. It's been interesting that no one in HH has ever reached out or requested a copy of Kechibi for instance.

➤ Rikki

## THE WALKING PEOPLE

There are still some who remember the Walking People from their beginnings as the otaku tribe known as the Routers. There are some watchful individuals who are also aware of the Walking People's neo-anarchist vibe. In the Allied German States, they are a part of a larger entity known as *Sprawlguerilla*, a large community made up of neo-anarchists, cyberpunks, Matrix terrorists, and generally unsavory folks as far as the megacorporations are concerned. Highly mobile, as their name implies, their members do not remain in any one place for very long, often relocating from one district to another within or between the larger sprawls throughout the world.

➤ Here are a few examples of those hacktivists groups to show the diversity of this so-called **Sprawlguerilla**. E-Wall's main focus is to free or help AIs. The Hackbirds were initially a hacker gang, big on petty theft, but nowadays they have acquired a good rep in Berlin's shadows under the leadership of the Sphynx. From what I know (which is not that much), Letzte Front is the remnants of UV-X, a terrorist organization that was behind the attacks of '72 that caused the city to be "reunited" (forcefully) by the corporations. This late iteration is as violent as the previous one, but they are the only group that really deserves to be categorized as a terror group. Of course, most corps and newsnets consider any member of the **Sprawlguerilla** to be a terrorist.

➤ Sim-Eon

Given their origins, the Walking People offer sanctuary and help to the Emergent, once originating with technomancers and now including e-fauna, AIs, and sprites. The group keeps people safe and unseen from oppressive forces such as puppet nations, megacorporate flunkies, and the ever-diligent eyes of GOD. The latter has become a more pressing issue with the wider organization,

## HACKER HOUSE

**Members:** 80+

**Group Connection Rating:** 10 (worldwide scope, extensive resources, some Awakened, pervasive Matrix)

**Host Rating:** 10 (10/14/12/13) (Foundation-tech host, not part of the global Matrix)

**Restrictions:** Electronics (5+) with a specialization in Software, Cracking (5+) with a specialization in Hacking or Electronic Warfare. Three or more Knowledge skills in fields such as Software, Simsense Technologies, Host Architecture, Cyberware Programming, etc. No Corporate SINS. No Dissonant technomancers.

**Perks:** Access to HH resources. Add Loyalty rating as bonus dice toward learning new complex forms as a technomancer, programs as an AI, programming new software (any type) while in HH host. Access to the Endless Archive (p. 150) by way of a backdoor Resonant Rift (p. 155). For submerging technomancers, there is a Resonance well found within the library that is always guarded by other members or allied entities. It acts as a conduit available for members or special guests to aid in advancement.

**Patronage:** All members also work for the benefit of the organization and its resources. Members typically give 300 to 700 nuyen worth of goods and services to the organization monthly. Time spent generating code, serving as a mentor, or functioning as a librarian (the people who transact sales to outsiders) are all options for contributions to the organization. These are in addition to services that might be offered as part of a member's Group Loyalty (p. 175, **Sixth World Companion**).

**Gamemasters Note:** Should the Hacker House host ever be successfully crashed using a Crash Host or Destroy Host, the entirety of the host and all those connected to it at the time, except for those attempting to crash it, are moved en masse to another location in the Deep Foundation. The exact method of how this is accomplished is uncertain at this time and has even survived an attempt performed by an Akyromantic technomancer (p. 19, **Collapsing Now**).

No member of Hacker House may have a corporate SIN or utilize one. Throwaway/one-time-use SINs are permitted for performing a task, such as taking part in a run against a corporation, but it cannot be of a rating greater than the individual's Loyalty rating with the group.

especially as the continued pursuits of the CCMA place more and more systems and hosts within the purview of the Foundation structure. The general belief within the Walking People remains that the centrally controlled Matrix is too much power in one place and is in the hands of the wrong people.

Their numbers have seen a notable growth in recent years, but they remain incapable of opposing most political or corporate holdings aside from Matrix raids, occasional doxing attacks against smaller targets, and other forms of corporate vandalism. Most of their members are still found within the AGS, with more than a hundred of

them finding and remaining in refuge in the Berlin sprawl. In lieu of increasing the pace of their attacks, however, many of their members have taken to traveling farther abroad, with some hiding in the sprawls of Tenochtitlán, Metrópole, Mumbai, and Hong Kong. Their Emergent membership had at one point dwindled to just thirty percent (fewer than twenty-five individuals) but has now swelled back to almost fifty percent (nearly one hundred beings), growing faster than the membership as a whole.

One method of group income that some of the members, especially those in the Berlin area, have taken to and excel at is the creation of smaller Foundation-based hosts. Most of these hosts are for smaller groups, including small businesses owned and operated by neighborhood mom-and-pop shops, or local neighborhood communes coordinating their efforts and performing fund-raising. In areas where the consideration for Foundation-based hosts is not preferable, the group retains skills related to Framework-based hosts and will utilize newer and older resources equally in order to complete a task. In Berlin, they are one of the go-to resources for working outside of the Foundation-based structures, finding their knowledge in growing demand as the noose of the megacorporations continues to tighten.

While there is no real leadership within, one of the prominent figures of the organization is an old troll decker named Sim-Eon. He has been spear-

## THE WALKING PEOPLE

**Members:** 200+

**Type:** MUG

**Group Connection Rating:** 9 (worldwide scope, limited finances, some Awakened, significant Matrix)

**Host:** 7 (8/9/9/8) (Framework host)

**Restrictions:** Annual dues.

**Patronage:** The group is not officially, or unofficially, sponsored by a larger agency or individual. It subsists on the dues and donations of its members, which are set at fifty nuyen a year. The location of the group's mirrored host is a closely guarded secret, and they do not maintain physical meeting places. Spokesbeings for the group only surface when the body, or a sizable portion thereof, chooses to make any official contact with the outside world. The members of the group are free to pursue their own personal goals, insofar as those goals do not directly incite violence. Still holding on to many neo-a tenets, the Walking People thrive on adversity.

**Gamemasters Note:** As part of an overarching but loosely affiliated neo-anarchist group, the Walking People function primarily under their own authority, such as it is. With the widening treks their members take around the world, many outside the organization are waiting for the group to splinter or divide into a cell-like structure, although the group shows no signs of this currently.

heading the Walking People's constant quest for data on everything Matrix, especially within the many Euro-nations and sprawls. His actions make him one of the best sources of Matrix expertise on the continent. An old-style neo-anarchist, Sim-Eon has pushed the group toward the same kind of outlook. Some would refer to Sim-Eon as a veteran or legacy decker, as he used to hang on the Shadowland BBSs back in the time of Captain Chaos, and this certainly shows in his touch.

- Born in Seattle, Sim-Eon is in his early fifties and was one of the Chaos groupies back in the day. He left the shadows during the year of the comet, Halley's that is, to join Horizon. Some feel he was a bit naïve, but he truly believed in the "do no harm" motto of the corp. Disillusioned by the technomancer massacre in Las Vegas, he came back to the shadows early 2075. He moved to Berlin soon after while hunting for information on CFD. To this day, thanks to him, the Walking People have one of the best knowledge bases on the epidemic and the monads.
- Butch
- The private host managed by the group has been mirrored into the wired, or Framework, Matrix of Berlin (yes, people in Berlin still leverage the remnants of the old, cable-based Matrix). This makes the task of destroying it more difficult, as one would need to find and crash all backups that mirrored locations in order to stop it from operating. Late in 2081, a series of murder victims were believed to be members of the Walking People. As of the time of this upload, there are no solid leads, and many members of the group have gone even more underground than they previously were.
- Ricki

## NEOBYTES AND STARTUPS THE (EVERETT) 811S

This organization is still relatively new in the Matrix, but they are no longer unique. It was the first all-Triad *sector* (a name now given to similar Triad groups), or technomancer tribe, made up entirely of Triad members. Commonly referred to on the street as the *Eight-Elevens*, they operate as part of the Triad operations for the 88s in Everett, up in the northern Seattle sprawl, under the rule of Boss Rick Wu and his Incense Master, Rubai Dong. They originally focused on all the Matrix crime perpetrated by Boss Wu's people, but they have been given the green light to aid in the formation of other full membership sectors for other Triad organizations in North America, as well as southeast Asia, with attention to Hong Kong, Qingdao, and Tianjin, where larger technomancer communities have been confirmed.

## THE (EVERETT) 811

**Members:** 20

**Type:** Emergent

**Group Connection Rating:** 7 (sprawl-wide scope, extensive finances, extensive Matrix, all technomancers)

**Host:** 6 (7/6/9/8) (Foundation)

**Restrictions:** Technomancers only, Triad members only.

**Perks:** Middle Lifestyle provided. May call upon other Triad members for aid.

**Patronage:** Fully sponsored (88 Triad, Everett, Free Seattle); NPC members can call upon a number of Triad members for protection or to help them in special business operations.

**Gamemasters Note:** The 811 sector highlighted here is intended as a model for other similar groups within larger organizations such as criminal syndicates. Should a PC wish to join such a sector, they must meet all the related restrictions, which would include any initiatory ceremonies into the Triad. Loyalty ratings for the group regarding PCs should be managed as per normal rules and not those listed above.

- Watching this organizational aid has been very educational. Not only is it showing adaptation, it also shows the strength in the stronger alliances for these portions of the greater Triad networks.
- Rikki

The sector's leadership is determined by their own membership, and it changes from task to task. Experts in false ID generation, identity theft, financial management and titration (money laundering), loan oversight, and transaction security, they are kept busy and seem to thrive on staying that way. The exact number of members in the Everett sector is uncertain, but it is believed to be no more than twenty in all. They are not known to have a host entirely their own, but instead use those hosts that are operated by the 88s and those businesses that the Triad itself maintains.

- I don't believe this. Their organization seems too capable not to have their own host someplace.
- LPSD
- They could have a host, but would likely only have access to it by way of the other hosts they manage. Why put something up front when they can pick and choose as they wish and cover it with legitimate operations?
- Jimmy No
- They also use e-fauna to serve as couriers.
- Plan 9

## FREEBOOTERS

Publicly, they believe in open source and wireless neutrality, a Matrix that isn't divided by corporations. They have many MeFeeds and Pito influ-

encers who stage protests, they AR-tag corporate offices with propaganda, and they distribute "the Truth" on corporations and their corrupt projects through pirate channels. There are hundreds, if not thousands, of Freebooters and sympathizers out there, with most of their member streams coming off like crackpots or a face who knows nothing about the Matrix. The group's goal is getting the Corporate Court to revise the CCMA's rules and implement the Freebooter ideals, which is usually nothing more than a nuisance to a corporation's PR department, even when one of the group's handful of trid-stars grabs the virtual soapbox.

Of course, most of this is just a stage, a smoke-screen for the actions of its more serious members. While most Freebooters believe they can realize their goals, a smaller core realize this will never occur, so they have taken it upon themselves to dismantle the corporations and give back to the public, one paydata job at a time. These members will spoof trid stations like the trid pirates of earlier generations and get network media to broadcast their own news. They'll crack software in order to create free-ware, usually avoiding the more lucrative options of extortion or ransomware so they do not risk the direct intervention of the GODs or demi-GODs investigating them. The tenuous "public shield" their general reputation grants them helps them avoid the more decisive actions that a truly threatening terrorist or extremist operative might choose.

- Do not think these people are against doing damage—they just prefer to avoid real heat, and are more than capable of implementing white-hat-related assaults involving tapeworms or data bombs to extract or disrupt the flows of information to their benefit.
- LPSD

Among their members are a few high-profile influencers like simstars, musicians, and others in the entertainment industry who are trying to get some form of street cred to elevate their presence. It's not uncommon for these individuals to give donations or make appearances on various Freebooter subscriber feeds.

- Harry Kim and Brandy Lee, also known as Jolt and Midi, are simsense theater actors who produce shows and musicals streamed on their MeFeeds. Comcast Corporation handles PR mishaps they sometimes generate, but they make up for it with the subscriber base that sources their MeFeeds. They remain great supporters of the larger group's actions, with a chain of accounts to separate publicly legal activities that serve as a fundraising front.
- Mika

Most point to Amadeus Badruk, a Cal-Free ork who pushed the wireless neutrality movement into the spotlight about a decade ago, as being a leader

## FREEBOOTERS

**Members:** 10,000+

**Type:** MUG

**Group Connection Rating:** 10 (worldwide scope, extensive finances, some Awakened, pervasive Matrix)

**Host:** 6 (7/8/7/8) (Framework)

**Restrictions:** Pito subscriber. Have one or more Matrix/corporate-related Knowledge skills. 100 nuyen annual dues. Must pass a Knowledge test regarding latest news or information about the CCMA, GOD, or similar Matrix authorities, at the gamemaster's discretion.

**Perks:** Can elevate the attention on Matrix-related decisions involving the CCMA. On the downside, it will generate +2 to the Heat score of all those recorded for up to one week afterward. Can get free tickets or passes to Matrix entertainment events for up to four people with a Con + Influence (3) test one time per month.

**Patronage:** Multiple second- and third-tier sim and trid entertainers put into this group, plus a sizable amount of funds generated annually from dues, buried as MeFeed subscriptions. These dues are not covered by a PC's Lifestyle and must be treated as extra expenses.

**Gamemasters Note:** Like it or not, there are probably a thousand organizations similar to the Freebooters, but a smart face or decker can utilize these people for all sorts of information on the CCMA or Corporate Court's actions regarding any Matrix or entertainment-related information.

of this organization. He has all the charisma and etiquette of a media executive, creating a network of fame and fortune that supposedly funds the whole organization. Amadeus has been headhunted, both literally and figuratively, a few times over the years. His current headquarters are in Los Angeles, though he vacations in the Black Forest, so he evidently makes good cred. Delegating much of the Matrix work to local groups, he still uses his accrued Pito score and associated fame to find other media allies.

- Mr. Badruk is not just a pretty face; he has his own Matrix skills, which helped start the movement. I heard that Perianwyr tried to recruit him as manager in the early days, but Badruk gracefully declined. One of my sources claims they still have drinks from time to time. He usually dresses stylishly, so it helps his image.
- WuPing

It's easy to find Freebooters, since they utilize very public stages. Many a MeFeed will lead to an actor supporting the Freebooter message. And while you are looking at the celebrity, you'll have half a dozen deckers and wannabes behind the curtain, checking your legitimacy and sizing up the threat you may represent. If you wanted to join the Freebooters, the easiest way is to send in a MeFeed résumé, which'll get you a Pito invite, from which

they will test your skills and moral character before an often-live audience. Pass the test, and you get an audience with one of the local Freebooter groups. Getting an audience with Mr. Badruk would take some serious talent or paydata retrieved.

- Freebooters love to put the Pito screws to new recruits. The audience feedback helps weed out the occasional corporate stooge or hacker wannabe. Bring popcorn!
- /dev/grrl

## LIGHT OF SPIRITS

TAOS PUEBLO TRIBAL SOVEREIGNTY,  
PUEBLO CORPORATE COUNCIL

Many technomancer groups refer to themselves as tribes. In at least one instance, this is a legitimate term applying to a group of technomancers who sought to form themselves into a recognized tribal body. Light of Spirits is the result of three solid years of sanctuary-seeking and constructive citizenship efforts that started with individuals who relocated from other parts of the southwestern continent, including Las Vegas, Denver, Phoenix, Mexicali, Nogales, Albuquerque, and Ciudad Juarez. At the core of the tribe is a group of twenty technomancers who all claim to have heard and answered a song-like summons to Taos from the Matrix entity Kokopelli, a deity that has been honored and revered throughout the many Hopi, Pueblo, and Zuni tribes over several centuries. Commonly associated with fertility, Kokopelli is a being that has many non-terrestrial ties and whose songs echo across the stars.

- Yup, let's all say it now folks ... ALIENS!
- Clockwork
- They are very intellectual. Territorial, but good people to know.
- The Refugee

Unlike many organizations, they set out without goals or any secret agenda that placed them into direct conflict with anyone. The founding members were all sanctuary seekers, wishing to hide or break away from places that had wronged them or where they had suffered. The actual means or moment of communication between the founders is not spoken of save in tribal songs, telling of the group meeting for the first time in Taos itself and becoming friends, quickly developing into a familial bond. This no doubt played a part in their eventual Symmetry-forming actions and later led to their acceptance into the greater peoples of the Pueblo Nations.

Since the founding, the tribe has accepted at first many dozens, and now a few hundred individuals in total, with more than fifty of the new members added in the last two years' time. Their tribal

## LIGHT OF SPIRITS

**Members:** 300+

**Type:** MUG

**Group Connection Rating:** 6 (local area scope, limited finances, some Awakened, extensive Matrix)

**Host:** 7 (7/9/8/10) (Foundation)

**Restrictions:** Must be a citizen of Pueblo Corporate Council. Must have Computers, Pueblo Matrix, and Tribal Customs (Light of Spirits) Knowledge skills.

**Perks:** Free medical services at Taos-area clinics. Access to the tribe's online libraries. Voting rights in the Pueblo Corporate Council.

**Patronage:** All members are citizens of the Pueblo Corporate Council, and as such have a monthly living stipend of 1,000 nuyen that they may use for living, transportation, residential, or entertainment expenses within the PCC. All members must work in some capacity for the PCC a minimum of forty hours per month.

**Gamemasters Note:** All members of the tribe have extensive knowledge of the spirit known as Kokopelli, including the technomancers and other emergent individuals who are now recognized members. This includes the few shamans and adepts who are members of the tribe having their own initiatory circle within the Light of Spirits tribe. Also found within the tribe are several individuals who are recognized as monads and have registered and received citizenship within the tribe and PCC after extensive interviews.

center is located at the foot of Pueblo Peak, in the northern portion of the Taos territory. Many of its members work regular jobs that one might expect in semi-rural communities, though several small agricultural businesses have been established in the area, growing everything from fruits and vegetables to winter wheat and summer wild grasses.

- Time to clarify. There are indeed several agribusinesses that are in the area, with vertical farming taking a strong hold to maintain water resources. It is also true they grow fruits and vegetables such as prunes, plums, apricots, and avocados. They do, however, grow a wheat strain that is unrecognizable from strains found in similar parts of the continent just a decade ago. The stuff is incredibly resistant to pests and pesticides alike, having even survived a wildfire that struck the region just over a year ago. Word is that Aztechnology is helping to fund this new strain, but everything is on the up and up. The other, larger money-maker is poppy. In particular, the **Eschscholzia Luciferium** variant of the flower. A derivative of the California poppy, "Lucifer's poppy" is a variant whose flowering petals and seeds are used in a dozen legal and twice that number of illegal biomedical substances. All sorts of security monitor those fields, always. The patents for **E. Luciferium** are held by the tribe's council, which is itself governed by the larger PCC structure.
- The Smiling Bandit
- So how did a tribe that is not even half a dozen years old produce this new plant?
- Ecotope

➤ There are no solid answers yet. You can be assured, though, that a lot of people are trying to figure this out as we speak.

➤ Gramius

➤ The Refugee wasn't lying when they said Light of Spirits were territorial. There's something going on there—those fields are completely covered by a jamming field that inhibits pretty much all types of Matrix-based communication. The only people I know of who can still function there are the tribe's security employees, who are never out in the open for observation. As for the astral? Those fields are **alive!**

➤ Ethernaut

➤ You should see it from where we watch.

➤ Eeroo

## THE DECEASED

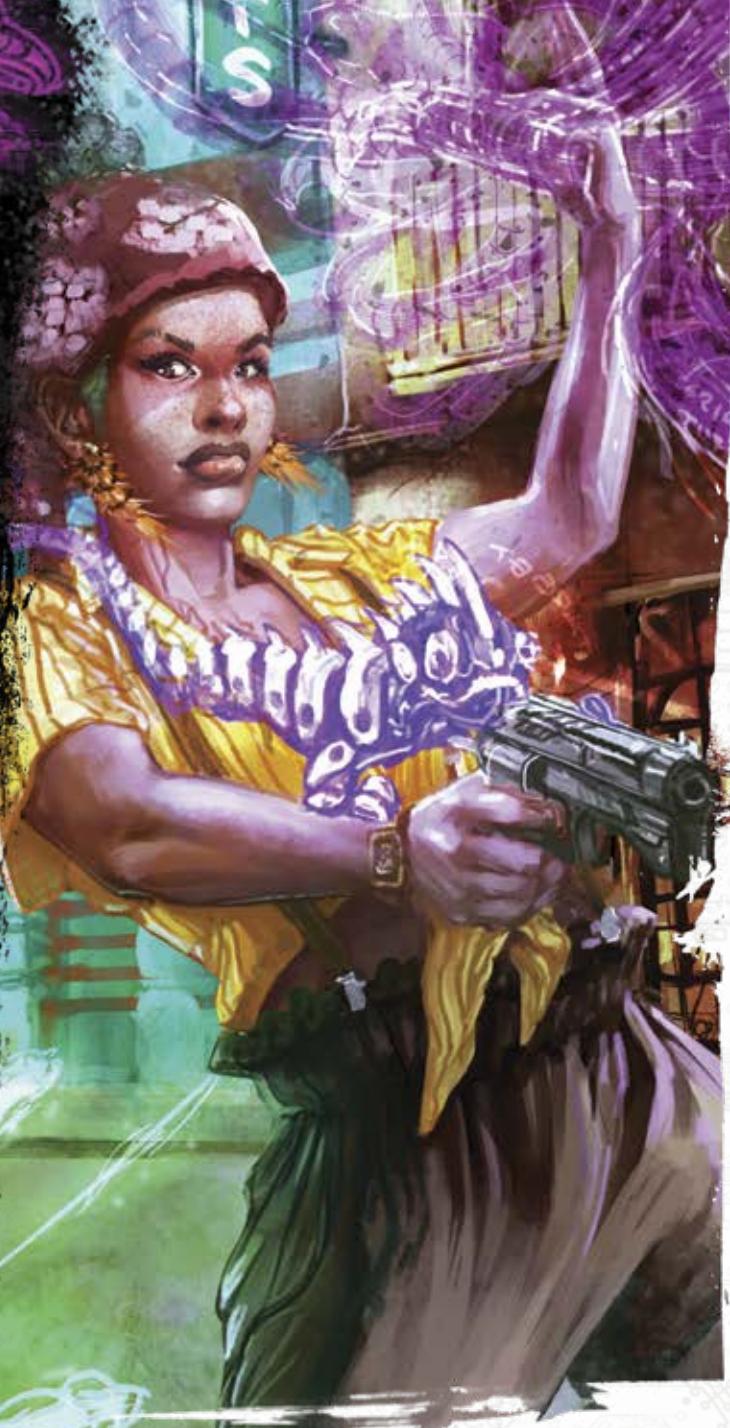
POSTED BY: DENIZEN

➤ I'm allowing this entry because it has more information about "the 100" than anything else we've had to date. I've asked Netcat to check veracity, and she came back more shaken than normal. Exactly how Gramius and Nybbles met "Denizen" I am uncertain, simply because this is a Deep Resonance thing and not something I can personally attest to. Denizen is also a technomancer, but they've managed to stay off everyone's radar until recently.

➤ Glitch

I'll start with a brief introduction. I'm a technomancer, originally born in Aztlan. I was an otaku in Denver until a bug hive took out most of my tribe. I then made my way to the Atlanta sprawl, then Fort Myers, Florida, where I leaped into the Deep Resonance while my body was under watch by a friend of mine. I resurfaced back in '74 to find myself beyond adolescence and armed with a great deal of experiences. I know about the origins of the ill-fated one hundred, as well as how they were used. I nearly joined them while I was submerged; it's only because my friend was always on the move that I escaped their involuntary endeavor. Well, most of them were involuntary, anyway. Other members of my tribe at the time were not so lucky.

It was through my older connection to my tribal family that I was able to discover, follow, and report the information I now present. When viewed from the outside, the theory of the one hundred at its rawest form makes sense. After all, if you can link greater and greater amounts of compatible hardware, you can get greater and greater capabilities. The largest problem was that the people who did it really had no idea what they were doing. Or if they did, then they were getting help that perhaps no one really should've had. Just plugging any group of technomancers together and expecting them to all work as one and share their inher-



ent ability to process data is itself an extraordinary act of conceit.

- Just seeing all those empty graves was bad enough.
- Netcat

They were individuals collected from around the world; each megacorporation contributed some part to this project. No one was innocent, not even EVO or Wuxing, who normally avoid these areas. I will say that four corps put more into this than the others, and I will name them. The two at the top of the list should not be a surprise to anyone. The third and fourth contributors give rise to understanding the extent of this work.

Mitsuhama Computer Technologies is at the top of the list. We all heard about the atrocities in sprawls like Hong Kong and Tokyo, and the “medical abductions” elsewhere, but I believe we never understood their full extent. of the issues happening in sprawls such as Hong Kong and Tokyo and “medical abductions,” but I believe we never understood the full extent. Their efforts placed them at the top of the heap and helped them remain there this long.

The second is Horizon. The Las Vegas debacle some years ago was just the tip of the megacorporate iceberg. The third-place contributor was a Matrix powerhouse before it broke apart; NeoNET devoted considerable resources to the project, including nearly a dozen technomancers. The fourth contributor was close behind: Saeder-Krapp.

These top four contributed more than half of the individuals who were placed into the amalgamation. Most groups we learn of always have some degree of personal self-determination left to their members. A façade of free will, at the least. Here, that façade was removed, reworked. It was made into part of the false symmetry that was generated by the program de la Mar spearheaded. It was necessary, in fact.

## CREATING FALSE SYMMETRY

This was a necessary part of making this group work and attaining that which was desired by its coordinators. Gramius told me they’d touch upon Symmetry as part of the groups in this upload, so I won’t delve into that any further. But each member of the one hundred needed to be adjusted to some degree. Within the group were people who suffered from what was known as AIPS back in the ’60s, and other names given to the early proto-technomancers. There were children who had been members of otaku tribes, a few who were not showing signs of the fading that once limited the metahuman emergent. Some individuals would no doubt be labeled as “Dissonant technomancers” by today’s standards. Others were believed to have been part of Deus’ programs within the then-Renraku Arcology of Seattle. I learned over time that everyone brought into the false symmetry of the Foundation had something particularly unique or gifted about them.

- If this is correct, it would explain many things. It would also generate more questions about the Foundation itself and how it continues to exist.
- Pistons

During the development of the project, it was revealed that in order for people to access the new Global Foundation and benefit from the newest Matrix protocols, each and every piece of hardware would need to be updated. Software up-

dates—some would call them firmware updates—were necessary. Certain older hardware protocols were intentionally designed out of the new system, forcing anyone wanting Matrix access to buy new, build new, train new. Which is a corporation's first and foremost desire. And of course, none of this could happen until what I've seen others refer to as "the Code Artifact" was found and then put to use.

So anyway, the programming of the individuals had to be performed using non-simsense technologies at first, because to be honest, simsense "programming" just did not hold against an Emergent mind. Each individual had to be made to believe that what they wanted was what their coordinators wanted. Add to this, there were easily two dozen individuals in the program who were *willing* participants. How and why these volunteers came about after everything else Hengester did and how de la Mar and her team cultivated this is outside of my understanding.

- › That's just wrong.
- › /dev/grrl
- › Everyone has a purpose.
- › Many-Names

It was the willing participants who were the leaders of each cell, each "node" that was established. "Node" was a term carefully chosen, because it was a reflection of certain elements of the Deep Foundation's structure. The entirety of the group was not brought online at first; there were tests, of course, in smaller groups. Most of these took place in locations far away from large population centers, with some of the testing happening in orbit as well as offshore, as one might expect.

- › I witnessed a few of these early trials. Some would say it was what I was paid to watch over at times.
- › The Refugee
- › There is no way you were here in '74! Stop trying to give yourself more importance than you really have.
- › Sim-Eon

## UNLEASHING THE BEAST

When the full power of the one hundred was finally untethered, it acted like a massive host pool, exactly like the de la Mar group wanted it to. At first, everyone was happy. There were a few glitches, such as the inability of those voluntary members of the project to be contacted directly. It took a while for that to fix itself, and then it went away. Especially after the Code Artifact was obtained. Once that was in the hands of the team, no one believed the Artifact mattered as much. They should've paid attention. The one

hundred were now the basis for an entirely new, pseudo-Resonant Matrix that could do things the older protocols could never have pulled off. If you know anything about Nous Fields, then you begin to understand what really happened to the one hundred.

## UNPLUGGING THE BOMB

In the second part of the '70s, a decision was made to attempt to swap out some of the one hundred. The deepest of favors were being called in, and a few individuals believed they might gain something more with newly trained technomancers incorporated into the False Symmetry—what everyone else labels the Global Foundation.

For those of you who have heard the stories, you know this didn't go well. What some of you may not be aware of are the effects of the swap. Matrix 1.0 was entirely the construct of metahumanity and its knowledge, but it was not the limit. At the peak of the Matrix operations, at least according to some, the events that culminated in Crash 2.0 within the Boston ECSE Matrix were the first true singularity, an actual data black hole formed by the combined power of the processing at hand as well as the connected individuals and entities to that server. It became so dense from all the sapient energy culminating there that when the Jormungand virus was unleashed in the node, the first Null Node if you will, it blasted a hole into the planet's growing Nous Fields.

And while it came a full decade later, the creation of the Global Foundation with the one hundred at its core immediately connected it to these growing energy fields. That created the first parts of the Reflecting Pool and the ability to enter deeper parts of the Deep Resonance. When the one hundred were unplugged, it was the Deep Resonance equivalent of setting off a nuclear weapon within the Reflecting Pool of the time. It is the Matrix equivalent of the Great Ghost Dance of the early twenty-first century.

There are beings and concepts and other things in the Deep Resonance that we do not know of, nor are we well and truly prepared for. Some of the Emergent beings you've encountered are just the beginning. You aren't, we aren't, without defenses, but we are certainly not ready for it all. And that is the lesson of the one hundred. Embrace the wild and free parts of the Matrix.

- › So Netcat, what exactly did you have to verify that shook you up so much?
- › Bull
- › You don't have to say.
- › Glitch
- › It's okay, I think it needs to be said. Some of you may learn about various Resonance Realms and hear about one of them

called the Tombstones. Well, there is a path that, if you follow the markers a certain way, leads you to a different part of the realm. Within that part, which is vaster than I care to express, is a place called the Graveyard. In the Tombstones, every program is listed by its ending date of operation; the Graveyard is similar, but instead of programs, it lists the names of every living thing that has died while connected to the Resonance.

- Netcat
- You have got to be kidding.
- Respec
- It's real. And it's more than just the Emergent.
- Puck

## GAME MECHANICS

### GROUPS, A COLLECTIVE EFFORT

Rules for Groups, Groups as Contacts, and Group Resources can be found in the *Shadowrun, Sixth World* and the *Sixth World Companion*, with the groups listed previously utilizing those mechanics to be useful to gamemasters and players alike. The focus here is upon the formation and utilization of an **Emergent group**, something that has not been fully detailed until now.

#### WHAT IS AN EMERGENT GROUP?

These are groups composed entirely of Emergent, or Resonant, individuals—notably technomancers, but also free sprites and others at the determination of the gamemaster. What is important is that the members of the group have a Resonance attribute. These groups can have a membership of any size, but the minimum required to form the basis (known as the Founding Symmetry) is four individuals.

Emergent groups in many ways imitate initiation groups Awakened individuals use to further their own craft. There are differences along with the similarities, most notably that Emergent groups lack the magical trappings or physical accessories that often come with the tradecraft of an Awakened character. This is not to say that there are no trappings or accessories, just that they are not items that will be inherently recognizable. One such accessory is the group's Emergent host, which is similar to but not entirely like a Foundation-based host.

#### FORMING A GROUP

The steps necessary to form an emergent group are as follows:

1. Determine the Groups Ethos, which may include group agendas or long-term goals.

2. Include any strictures or restrictions the group wants to put into place. This might include what mundane organizations refer to as bylaws, or similar contextual tenets to be followed. Any possible group qualities should be determined and incorporated. The guidelines for strictures as found on p. 131, *Street Wyrd*, work for Emergent groups.

3. Undergo a process known as Symmetry. This takes place when the founding members spend a respectful amount of time learning about one another within the scope of their Resonant persona. This normally takes a number of hours equal to the total number of founding members, with some groups choosing to take longer in order to ensure their Symmetry is successful. During this process, each member works toward integrating a portion of themselves. This shared, Symmetrical portion then reaches out into the Deep Resonance and establishes a connection. This process includes the expenditure of 5 points of Karma on the part of each member. No other member may spend Karma on behalf of another. The connection into the Deep Resonance is a type of conduit through which the individual can access increased resources. Once Symmetry is achieved and the group conduit is formed, the members may also undergo submersion as a group to advance in their pursuits. The costs for submersion and its benefits are outlined on p. 195, *SR6*. Additional benefits are detailed below and elsewhere in this book.

#### LEAVING A GROUP

It is always possible to leave an Emergent Group. If a member wishes to leave on their own, and they are not suffering from restrictions because of the group, they may do so with the expenditure of 1 point of Karma and performing a self-alignment process, which normally takes about one hour of time. A group may choose to expel a member as well, but doing so is a direct act and is often a punishment for egregious action that goes against ethos or breaks the strictures in some manner. Individuals who have been cast out have their Reputation reduced by 1 or more points, depending upon the level of infraction and gamemaster's decision.

#### JOINING A GROUP

If an individual desires to join an existing group, and they meet with all the required restrictions and strictures, they may do so by undergoing Symmetry. This process requires the assistance of at least two other members of the group in good standing, a number of hours equal to the Resonance attri-

bute of the would-be member, and the expenditure of 6 Karma by the petitioner. Once completed, the member has full benefits, if any, possessed by the group.

## GROUP QUALITIES

Like qualities possessed by individuals, some groups may possess qualities determined at the time of their formation. The number of points that may be used to purchase these qualities is equal to the number of founding members at the Symmetry, plus one point for each stricture included at group creation. Additional points may be purchased on a one-to-one basis for every point of additional Karma that the group's founders donate to the organization for this purpose. Examples of these qualities are listed below.

**Emergent Host:** 4 Points. During initial Symmetry, it is possible for the founding group to generate a special form of Resonant Rift (p. 155) that generates a Foundation-like host. The difference is that it is not connected to the global Foundation but is instead a form of the Resonance Realm, one based upon the Emergent group's symmetry. Any member may access this host as long as they are not operating in silent mode or within the environs of a host they do not have admin access to, legal or otherwise. These hosts have a core (device) rating equal to the number of founding individuals, or the highest Resonance attribute, whichever is lower at the time of initial formation. The host attributes are equal to the core rating, with a number of additional points available for allocation equal to the lowest Resonance attribute of the members present, plus 1 for every 10 members of the group (maximum 5). Raising the core rating itself costs a number of points equal to the current rating.

**Group Echo:** 5 Points. This ability allows an Emergent group to share in the benefits of a single echo, as detailed on p. 195, SR6. The echo can only be used upon and between other members of the group, or in the physical presence (6 meters) of at least four other members of the group.

**Symmetrical Submersion:** 2 Points. This quality reduces the Karma cost for submersion of a member by the Loyalty rating of the group to the member, to a minimum of 2 points. The member undergoing submersion must be monitored by another member of the group who observes their persona at the point of initial access. This does not reduce the cost of increasing the Resonance attribute.

**Well Connected:** 1 Point. This quality allows a group to raise their Connection rating by 1 point. This quality may only be taken twice. This benefit only works within the Matrix or the Resonance Realms.

## SAMPLE GROUP CREATION

A group of Emergent individuals, six technomancers in all, strive to create an Emergent group for their collective benefit. After hammering out all the details, the group settles down and meets within the realm of the Reflecting Pool (p. 157). Of them, Olaf has the highest personal Resonance attribute of 8, and Genie the lowest at 4. Two members of the group agree to give an additional 3 Karma toward the group's creation beyond the required 5 points each must give. They decide upon three strictures, which will give them 15 total quality points (6 members + 3 strictures + (3 x 2) bonus Karma points). After completing the necessary time (6 hours) to achieve Group Symmetry, the Resonance Rift opens and establishes their Emergent host (4 quality points). As they reach out with their senses, they can feel the inherent strength of their bond by way of their group Resonance Link echo (5 quality points). They had already chosen the benefit of reducing Karma for submersion (Symmetrical Submersion, 2 quality points), leaving them with four quality points they direct toward the improvement of their Emergent host.

Their Emergent host begins with a core rating of 6, since the number of founding members (six) is less than their highest Resonance attribute (Olaf's 8). They decide their most important attribute is Firewall (+3), followed by Data Processing (+2), Sleaze (+1), and Attack (+0), giving their Emergent host the final attributes of 6 (6/7/8/9). Once established, these attributes cannot be reallocated.

## PLAYER CHARACTERS AND NPC GROUPS

When a player character wants to join a group found within *Shadowrun* source materials, the gamemaster may permit it, though the source materials are not always intended for this purpose. When doing so, all of the restrictions, strictures, and benefits of the group will naturally be imposed upon the player character as befits the group. With regard to NPC Emergent groups, a player character must track their Loyalty with this group just as they would any other group contact. Their beginning Loyalty to the group is 3. One difference between submersion groups and initiatory groups involves the Loyalty mechanic.

For any reason afterward, should the character's Loyalty score drop below their initial rating of 3, the character is treated as if breaking a stricture, and they will suffer whatever penalties are appropriate from the group until the situation is corrected, or until the character is removed from the group. If a character wishes to pursue submersion while they are suffering from infraction of strictures, for every infraction broken, they must pay an additional point of Karma toward their submersion cost.



# VIRTUAL LIFE

## POSTED BY: ICARUS

What is digital life? What does it mean to be alive? What does it mean to have intelligence? While things can get pretty hairy while trying to determine the answers to questions like these, we have at least a few of the answers from the Warsaw University Department of Digital Anthropology and Zoology (DAZ). They have put together a large amount of research about what makes something digital life, what is just a program, and what is something in-between.

The folks at DAZ looked at the classification that other researchers put out and offered up a simpler system, which we will use for this dive into digital life. They separated all digital life into protosapients and xenosapients. Protosapients are your basic flora and fauna of the Matrix, and while they don't always have animal cunning, they have the ruthless logic that only software can have. Xenosapients are the truly intelligent species of the Matrix. The research to separate the two classifi-

cations has included experimentation and testing to check whether the entity returns a similar response to stimuli or if there are specific sets of behavioral changes as a result of similar or different stimuli. Of course, sometimes the entity makes it easy when they come out and tell you that you are ridiculous and you need to adjust your experimentation criteria.

There's also one more category of digital life: the mysterious entities known as paragons. It's unclear if they even exist, as there is no definite proof. Some researchers hold the opinion that they're nothing more than constructs formed from a technomancer's subconscious, a reflection of their own beliefs and desires. A few believe they represent an undiscovered branch of digital life: supersapients. Others theorize that they are entities from the Deep Resonance, perhaps the lords of the Resonance Realms or sprites that have evolved to have godlike levels of power. To date, no paragon has presented itself for study and verification, so all of these opinions and theories remain equally valid—and equally unproven.

What makes something alive versus a piece of software is tied to the new Unified Information Theory, or UnITy. The theory as it applies to digital life related to Nous and what the researchers have classified as Spark—not true Resonance ability, but still a definitive connection to it. They have called Spark the “essence of digital life.” How they measure the connection that ones and zeros have to the noosphere is beyond me, but they have a catalog of creatures that they have found in the Matrix and identified positively as something that is alive by their definition. But the simple way to put it is that digital life has the Spark.

For the stuff that’s not alive, you have programs, agents, data, IC, and constructs. Sprites are a gray area; while many wild sprites reside in the Resonance Realms and have an undeniable Spark, they can also be compiled by technomancers and EIs. These versions have a strong connection to the Resonance, but there is some question of whether they are an extension of the compiler versus a separate living entity. Similarly questionable was one of the big nasties that we have been seeing in the Matrix lately: the constructs of the Null Sect. They are believed to be compiled in a manner similar to sprites, but they have neither a connection to the Resonance nor a Spark, so that debate is settled. But despite not being “alive,” these things are still highly intelligent and a pure menace.

Protosapients range from information grazers to icon hunters. Many of these life forms have evolved to fit niche environments. Some find homes in a single type of device, while others move through the Matrix. I pulled some specific entities that are particularly nasty ambushers that I wanted to make sure digital denizens were aware of.

Within the xenosapient category, which has generally been pretty small, we have a newer entry: the Emerged Intelligence. EIs are basically artificial intelligences with a true ability to use Resonance in the same manner as a living biological technomancer, an ability previously unseen. Perhaps they use Resonance thanks to a connection to, or an origin within, the Resonance Realms. This deeper connection to the Resonance isn’t reserved to EIs. Some other protosapients have the same connection, and can even use complex forms. Now, whether those creatures have crawled up out of the Resonance Realms or if they have evolved within the Matrix is not clear. It seems that the rapid rate of software copying means that digital life can change and adapt at a rate that purely biological creatures cannot.

## PROTOSAPIENTS

Protosapients are the basic virtual life form found in the Matrix. Some seem to have evolved there while others have migrated from the Resonance Realms. Many of these creatures have been

## VIRTUAL LIFE AND MATRIX EDGE ACTIONS

As native inhabitants of the Matrix, all virtual life forms have access to all Matrix Edge actions without needing any special gear or attributes, such as a cyber-jack or Resonance.

around for decades, but the wide use of Foundation hosts has given protosapients greater access to our information mega-highways. They have been a gateway to populating our hosts, host Foundations, and the open Matrix. The Matrix is still a frontier in many ways, and while we know about some of the protosapients out there, many more are waiting to be discovered and possibly munge you.

Our initial thoughts that they were bound to a device were incorrect. Protosapients don’t need devices, but they may consider a very specific device type as their natural habitat. Because these habitats are typically a commlink, cyberware, or other device, they will migrate on the Matrix from one habitat to another. Protosapients can inhabit any device with a device rating, though they suffer no restrictions for a lower device rating. They are attracted to devices with a DR equal to or greater than their Data Processing.

Protosapients eat data, use processing power, and generally are a nuisance on a device. The inside of a device has a ton of space, but what gets cramped is the processing power. So protosapients that run in packs have learned to share the amount of processing on a device, but they pull additional processing from other surrounding devices. Most protosapients use your commlink or cyberware like a cave, and getting them out can be a pain. Usually it means finding someone with a cyber-deck or a technomancer who can go in and attack them. The biggest risk is when a proto doesn’t have enough to eat and bricks your device before moving onto a new one.

Any digital entity with the Cracking skill can attack another icon with the Data Spike action. Though this is a standard action, many digital life-forms can use this action in a number of alternate ways. These are listed on a separate “weapon” line, and they may have a different damage value, Attack Rating, or another special feature, such as Rainbow Smash [Cybercombat, DV 5, AR 12, leaves the target icon rainbow-striped until rebooted]. These alternate digital weapons all still run with a Data Spike action. Also, many entries will use either the “Tarpit” Matrix attack or an alternate version—only available to protosapients or as a codemod—that attacks other Matrix attributes.

**Acid Jet:** A version of the Tarpit Matrix Action that reduces Firewall instead of Data Processing.

**Limelight:** A version of the Tarpit Matrix Action that reduces Sleaze instead of Data Processing.

**Swordbreaker:** A version of the Tarpit Matrix Action that reduces Attack instead of Data Processing.

Attacks that duplicate the special attack of a variety of IC will have the type of IC listed at the end of the Attack profile. For example, an attack with Distort [Cybercombat, DV 0, AR 5, Crash] will have the same effect as an attack by the Crash variety of IC, causing that IC's special effect.

## CYBERWEREWOLF

No one is quite sure where the first cyberwerewolf came from or which piece of cyberware became its first territory. What is known is that cyberwerewolves appear as some meta-idea of a wolf, except that it always has more than four legs and often has four or more tails and heads. Its fur shifts and blends to match its environment, and often all you can see in the dark are the golden eyes from all its heads focusing on you.

Cyberwerewolves are hyper-territorial in their cyberware homes, tracking and consuming data, programs, and icons that find their way into the territory. For cyberware on a PAN, cyberwerewolves are known to visit nearby devices looking for new territory and hunting any persona or files they happen to find. They're pack hunters, often hunting in groups of six or seven. Their pack lives in a single piece of cyberware but sometimes spread across an entire PAN.

There have been recent reports of an extremely large pack of cyberwerewolves seen around one of Shiawase's cyberware hosts. Reliable sources have reported over sixty in the pack. If it is true that these hunters have begun to adapt and move to additional territories, employees and deckers have much to be concerned about.

### CYBERWEREWOLF

A	S	D	F	W	L	I	C	EDG	SPK
8	7	5	6	4	2	4	3	4	6
DR	I/ID	AC	CM						
13	9/4	A1,15	10						

**Matrix Skills:** Cracking 4 (Cybercombat +2), Electronics 4 (Electronic Warfare +2)

**Qualities:** Munge, Real World Naïveté

**Programs:** Armor, Decryption, Exploit, Stealth

**Attacks:**

Slashing Claws [Cybercombat, DV 5, AR 16]

Acid Jet [Cybercombat, DV 1, AR 15, net hits reduce the Firewall attribute]

## DAEMON

Daemons are one of the truly terrifying nasties to have migrated from deeper in the Resonance Realms. They usually appear as corrupted, shrieking imp heads topped with horns. Their long faces are almost draconic except for the eight eyes staring down at you. While they are missing legs and most of a torso, they have massive arms ending in clawed hands, all covered by a black glossy skin that stretches in an uncanny way as they move. Their massive wings appear as wispy smoke. Daemons can often be found living in wild hosts out in the fringes of the Matrix, but their true home is rumored to be Malice. Be careful visiting there, because you are sure to see a few daemons. Unlike most protosapients that only munge data and programs, daemons survive by munging on the actual Spark of other digital lifeforms. They patiently track and hunt personas, waiting for an opportunity to feed their hunger.

Most of the time, if you see a daemon, it's because it's not hungry. It's when you don't see them that there's a chance they may be stalking you. They like to hunt in groups of four or five where they encircle their target, paralyzing the victim with a Tarpit while the others munge on the Spark of their helpless prey.

### DAEMON

A	S	D	F	L	I	C	EDG	R	SPK
6	7	4	3	2	6	3	3	4	(1-12)
DR	I/ID	AC	CM						
9	10/4	A1,15	10						

**Matrix Skills:** Cracking 3 (Cybercombat +2), Electronics 3

**Qualities:** Munge Spark, Real World Naïveté

**Complex Forms:** Diffusion (Firewall), Resonance Spike

**Programs:** Decryption, Stealth

**Attacks:**

Diving Slash [Cybercombat, DV 3, AR 15]

Tarpit [Cybercombat, DV 1, AR 13]

## FROBNITZ

Frobnitzes are the mimics of the digital world and may have been created out of an archive of old books. While some protosapients look distinctly different or even wrong from the more metahuman entities of the Matrix, a frobnitz looks like any other regular device, icon, or persona. But when you get close to it, the icon changes, expands, and suddenly grows into a massive maw, shoveling in data at a rapid rate.

Frobnitzes are often solitary hunters and are analogous to a Venus flytrap. They seem to be rooted in place, but the reach of their mouth is surprisingly large. Their preferred prey is sprites, which makes them particularly loathed by technomancers. Often you will find a technomancer tribe on a hunting expedition to clear frobnitzes from nearby areas.

**FROBNITZ**

A	S	D	F	W	L	I	C	EDG	R	SPK
5	2	3	4	2	1	4	4	4	4	6

DR	I/ID	AC	CM
7	7/4	A1,15	9

**Matrix Skills:** Cracking 6 (Cybercombat +2), Electronics 3**Qualities:** Malleable Icon, Munge, Real World Naïveté**Complex Forms:** Diffusion of Firewall, Resonance Veil**Programs:** Decryption, Exploit, Rocket Launcher**Attacks:**

NOMNOMNOM [Cybercombat, DV 5, AR 7]

**GLITCH**

Glitches are rare on the Matrix—or if they aren't, they're fraggin' hard to spot. The few that have been identified didn't have a consistent look, and one of them shifted over time. When connected to a device that they are leeching from, they tend to shift their appearance to that of another device that could be on the PAN—only it is subtly wrong, with indistinct edges and logos that don't quite line up. When they aren't attached to a device, they are a single stream of rainbow code streaking through the Matrix, looking for a new target.

Most protosapients start munging data rapidly, but glitches slowly suckle the data and processing power from devices. The best way to describe what they do is to imagine your old device. You know when you buy a brand-new commlink, and suddenly everything is so much quicker? It's like the old device was filled with cruft that made it slower. The glitches are like cruft, consuming resources and eating away at it, accelerating the process of deterioration.

You won't ever see more than one of these hit a device, if you even see one at all. They are solitary data grazers that like to hide. Just don't corner one, because they can definitely pack a punch when backed up.

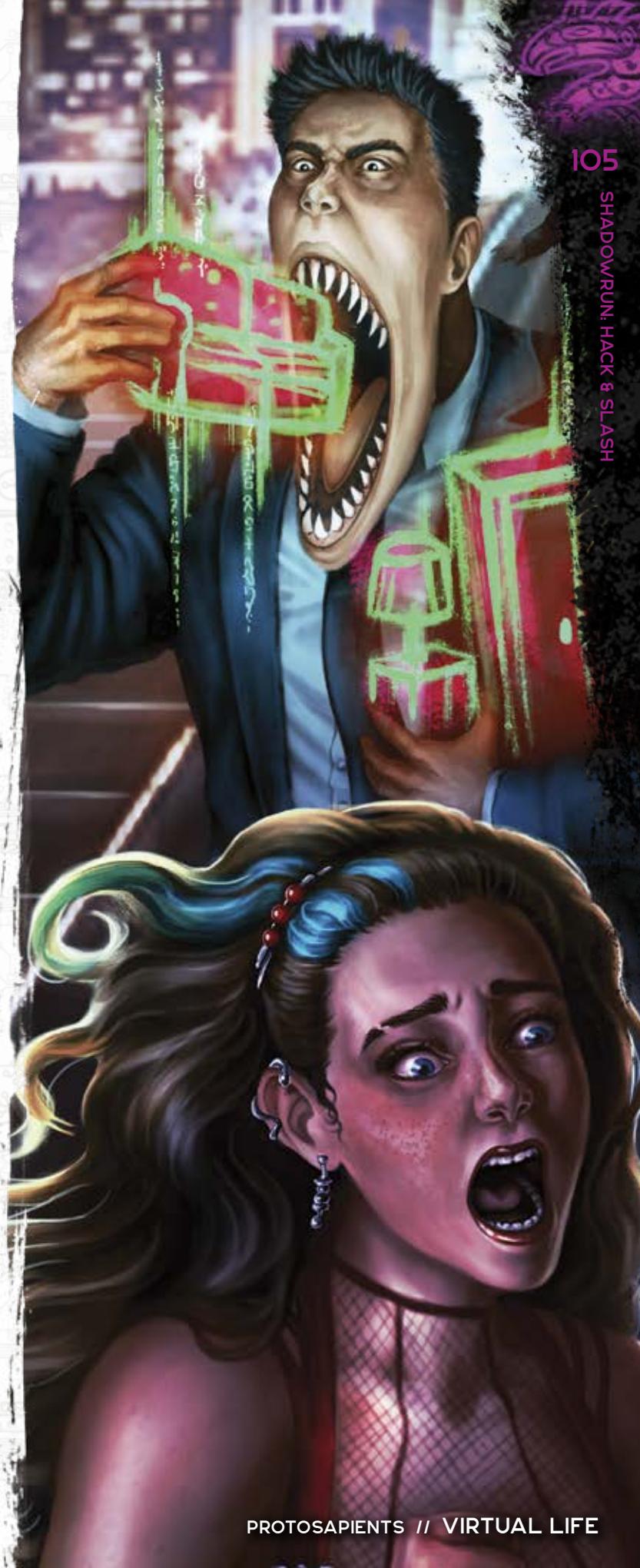
**GLITCH**

A	S	D	F	W	L	I	C	EDG	SPK
3	6	5	4	3	1	4	3	4	4

DR	I/ID	AC	CM
9	9/4	A1,15	10

**Matrix Skills:** Cracking 5 (Cybercombat +2), Electronics 5**Qualities:** Corruptor, Malleable Icon, Munge, Real World Naïveté**Programs:** Armor, Decryption, Exploit, Rocket Launcher, Stealth**Attacks:**

Rainbow Smash [Cybercombat, DV 4, AR 9, leaves target icon-rainbow striped until rebooted]



## GRUE

Grues are very reclusive protosapients, which probably makes them sound way nicer than they actually are. These things are terrifying. Most of the descriptions from the few who survive encounters with a grue usually involve darkness and tentacles, but not a whole lot else. It appears that they can pull the threads of the Matrix to wrap around themselves with their many tentacles, and then ambush their prey.

Grues are solitary hunters. They seem to know where the valuable data is, because that is often where they lay their traps. It doesn't really matter where the trap lies, either, whether on devices or hosts. Once the persona focuses on the file, the grue springs its trap. That trap relies on their strong attack, which is quick.

### GRUE

A	S	D	F	W	L	I	C	EDG	R	SPK
7	6	4	5	6	2	6	2	7	6	6
DR	I/ID	AC	CM							
11	10/4	A1,I5	11							

**Matrix Skills:** Cracking 7 (Cybercombat +2), Electronics 5, Stealth 7

**Qualities:** Munge, Real World Naïveté

**Complex Forms:** Diffusion (Firewall), Emulate (Snooper), Resonance Spike, Resonance Veil

**Programs:** Armor, Decryption, Exploit, Snooper, Stealth

**Attacks:**

Grasping Tentacles [Cybercombat, DV 6, AR 14]

## HEAVYWEIGHT

One of the largest protosapients to swim the digital sea is the heavyweight. A heavyweight looks like a large, armored van with odd, thin legs growing where the tires should be. No one is sure how many of them live out in the wilds, but no one wants them near their data stores.

Heavyweights are solo large grazers who roam the Matrix, migrating from host to host. The large creatures don't so much as hunt as just hoover up anything that gets near them. They are so destructive to data that the Big Ten and the Grid Overwatch Division have been running a tracking division called the Heavyweight Inventory and Tracking Operation (HITO) just to keep them out of any corporate facilities. HITO has killed a few of these things, but most of the time, they hope it just moves on.

Some of the MUGs have been using these things to wreak a special sort of havoc on their targets, so make sure your data haven't gotten on the bad side of folks. Luring them in is tricky if you care about the data you use as bait, but if you leave enough of a trail, you have a pretty good chance of redirecting them toward your target.

## HEAVYWEIGHT

A	S	D	F	W	L	I	C	EDG	SPK
4	3	5	10	7	1	2	2	2	6
DR	I/ID	AC	CM						
17	7/4	A1,I5	13						

**Matrix Skills:** Cracking 3 (Cybercombat +2), Electronics 3

**Qualities:** Munge, Real World Naïveté, Redundancy

**Programs:** Armor, Fork

**Attacks:**

Stomp [Cybercombat, DV 3, AR 7]

Crush [Cybercombat, DV 6, AR 12, requires 2 Virtual Aim actions first to initiate this attack]

## NOISESTORM

The first report of a noisestorm seemed like just a Matrix phenomenon rolling through the area. It wasn't until later that folks started to figure out there was something odd about the storm. It seemed to have a mind of its own.

The body of a noisestorm is diffuse and covers large areas of Matrix terrain with a massive storm of noise. Devices inside the boundary of a noisestorm are affected by an increase in the amount of noise, but when they go and check their data, often they find that portions of the files are missing or corrupted.

How big can a noisestorm be? The largest one reported messed up a few city blocks. These storms have even been found inside hosts. Initial attacks on these entities didn't stop them, but instead increased the intensity of the noise.

A noisestorm isn't a single entity; it's a cluster of entities (the number is reflected by their Spark). But from the outside, it all just blends together.

### NOISESTORM

A	S	D	F	W	L	I	C	EDG	SPK
3	2	2	5	4	1	2	3	2	(1-12)
DR	I/ID	AC	CM						
9	4/4	A1,I5	13						

**Matrix Skills:** Cracking 3 (Cybercombat +2), Electronics 4

**Qualities:** Corruptor, Entropic Conversion, Munge, Primal Rage, Real World Naïveté, Redundancy, Snooper

**Programs:** Armor, Fork

**Attacks:**

Distort [Cybercombat, DV 0, AR 5, Crash]

Noisestorm [Cybercombat, DV 2\*, AR 5, Special Protosapient Attack: Noisestorm]

Zap [Cybercombat, DV 1\*, AR 6]

\* Primal Rage adds +1DV for each -1 wound modifier incurred by the noisestorm

## POWER MUNGER

Have you ever seen a balloon animal? Well, that's what the power mungers look like—a col-

lection of wires, cords, panels, and other tech that sparks and crackles. The type of animal varies from the two-legged kind to some with a few more legs than that. And sometimes it's just geometric shapes.

Power mungers are attracted to devices related to power generation, and no one is sure why. Researchers have even hooked up alternative devices to power generation facilities, and the power mungers still come. They aren't particularly aggressive, but they will gobble up any data or icons related to the facility, generator, or even from the regenerative braking in your car. They are a huge public nuisance and have been known to take down entire power grids for hours at a time, disrupting backup, maintenance schedules, employee data files, and dozens of other types of data required to keep power generation running smoothly.

Most power companies have divisions of tech resources dedicated to guarding the digital fences to keep the power mungers away. There's even been one job where someone hired a team to find out if these protosapients are native to a particular Resonance Realm and might be removed permanently.

### POWER MUNGER

A	S	D	F	L	I	C	EDG	SPK
7	1	12	12	2	4	10	6	4
DR	I/ID	AC	CM					
26	7/4	A1,15	14					

**Matrix Skills:** Cracking 3 (Cybercombat +2), Electronics 4

**Qualities:** Munge, Real World Naïveté

**Programs:** Armor, Fork, Rocket Launcher

**Attacks:**

Blackout [Cybercombat, DV 0, AR 8, Scramble]

Zap [Cybercombat, DV 3, AR 9]

### SENSE EATER

Cyberwerewolves aren't the only type of protosapient attracted to cyberware. Every niche environment breeds creatures with specialties that give them advantages in that domain. The sense eaters' niche is cybereyes and cyberears. They look like metahumans, but their skin looks like a patchwork quilt of different shades and patterns. One eyewitness claimed he saw a larger one that turned out to be made of many smaller sense eaters. The mosaics shift and display images and videos while playing a cacophony of sound.

The sense eaters feed on the live video and audio files of cyberware. The result is that the victim's cyberware will be working fine one day, and the next, they have lost all sight or sound. Even replacing the cyberware with new equipment may not get rid of an infestation of sense eaters. Once your PAN is infected, you need to hire specialists who

go in and specifically remove all the protosapients. On the lucky side, this appears to only be related to cyberears and cybereyes; they have not adapted to invade other types of sensory 'ware.

While it may seem like they lack intelligence, this is not true. They feed on places known for their strong visual images or audio. They will often be found near concerts from the biggest names, as well as the debut of many trid productions.

### SENSE EATER

A	S	D	F	W	L	I	C	EDG	SPK
2	3	4	5	3	2	7	5	3	4
DR	I/ID	AC	CM						
11	11/4	A1,15	11						

**Matrix Skills:** Cracking 4 (Cybercombat +2), Electronics 4

**Qualities:** Munge, Real World Naïveté

**Programs:** Armor, Fork, Stealth

**Attacks:**

Data Spike [Cybercombat, DV 1, AR 5]

Tarpit [Cybercombat, DV 1, AR 5]

### SIN EATER

When SIN eaters were discovered, the researcher classified them as an entity more evolved than glitches or frobnitzes because the details in the icon were crisper and more accurate. What that original research missed was that the SIN eater copies everything about its prey before creating an exact match for it—then it kills the original. Because of this, no one knows what it looks like when it isn't a doppelganger of another entity.

SIN eaters are solitary hunters. Their approach is never through direct attack until they have completed replicating the original. Once they have, they typically set traps for their prey. If they are unsuccessful in trapping their prey or luring them to their death, they will act directly. Once they have completed their hunt, they consume the data and icons, sated for a few cycles.

### SIN EATER

A	S	D	F	W	L	I	C	EDG	R	SPK
5	6	4	3	3	2	4	5	3	4	4
DR	I/ID	AC	CM							
9	8/4	A1,15	10							

**Matrix Skills:** Cracking 6, Electronics 6

**Qualities:** Munge, Real World Naïveté

**Complex Forms:** Data Disguise, Mirrored Persona, Resonance Veil, Search History

**Programs:** Armor, Decryption, Stealth

**Attacks:**

Slashing Claws [Cybercombat, DV 4, AR 12]

Violent Replacement [Cybercombat, DV 7, AR 15, only usable if the victim is surprised]

## SINTAX

The name of this protosapien must have been a huge joke to some Matrix researcher. Their icons appear as corporate wagerslaves wearing ill-fitting suits, only they are distorted. Their joints may bend the wrong direction, or the joints are located in the wrong spot. Their faces appear off as well, setting them at the bottom of the uncanny valley. Their movement is often stuttered as they jerk about from one location to another. But it appears that they try to mimic the behavior of metahuman activity on the Matrix by pulling files from the archives—only they munge the file.

SINTaxes were first seen in hosts abandoned by failed corporations. They were seen picking over the bones of files and device icons. Since then, they have been spotted in hosts in the wild Matrix and in some of the lesser-used hosts in more tame regions of the Matrix. They have become increasingly more common.

Luckily, they aren't necessarily dangerous as long as you pay attention to your data and icons. They graze through whatever they can. Often, they are prey of other protosapients. The most dangerous thing is operating near groups of these, as their mere presence increases the rate of failure in programs and actions.

### SINTAX

A	S	D	F	W	L	I	C	EDG	SPK
2	2	3	4	2	1	2	3	3	6
DR	I/ID	AC	CM						
7	5/4	A1,15	10						

**Matrix Skills:** Cracking 3, Electronics 2

**Qualities:** Corruptor, Munge, Real World Naïveté

**Programs:** Decryption, Stealth

**Attacks:**

Corrupting Touch [Cybercombat, DV 1, AR 4, causes the target to possess the Gremlins negative quality for 1D6 hours; additional attacks add +1 hour to the special effect]

## TENTACLE

The icon of this entity is a single flexible limb that is often matte black or dark brown, and it doesn't lead to a body or end at a nub. This sets it apart from some of the other protosapients described as worms or snakes.

The tentacles probe through the Matrix, snatching up icons to begin the slow process of munging. As part of the munging, the icons distort into twisted faces and corrupted bodies as if they were dolls out of your favorite horror trid, disrupting Sleaze and making any surviving icons stand out in the Matrix until they reset. They are attracted to areas of the Matrix with large amounts of icons, but where they aren't attacked. There have been rumors of tentacle frenzies that have brought sec-

tions of the Matrix down, but these rumors have not been verified.

A tentacle is a solitary hunter, and while not skilled at fighting another predator, they are quite capable of handling most of the devices and icons on the Matrix. It is possible that your PAN may be juicy enough to become the target of a tentacle, but fighting back can drive them away.

### TENTACLE

A	S	D	F	W	L	I	C	EDG	SPK
3	1	3	4	4	1	4	2	4	6
DR	I/ID	AC	CM						
7	7/4	A1,15	10						

**Matrix Skills:** Cracking 2 (Cybercombat +2), Electronics 2

**Qualities:** Munge, Real World Naïveté

**Programs:** Decryption, Exploit, Stealth

**Attacks:**

Rasping Tentacle [Cybercombat, DV 4, AR 5]

Limelight [Cybercombat, DV 1, AR 15, net hits reduce the Sleaze attribute]

## YANTRA

The icon of a yantra appears as a hovering brain with exactly fifty-five short tentacles that it uses for locomotion. The brains themselves appear either black or white, and researchers have been unable to determine if there are differences in behavior between the two types of yantra.

The natural territory of the yantra are the abandoned corners of the Matrix, but they have been known to visit other locations. They are attracted by older files with data bombs attached, which has made them the bane of both data archivists and Matrix security personnel. Any site using data bombs could attract the attention of these protosapients. They learn to construct their own data bombs after they have munged enough of them, leading researchers to believe that they are skilled copiers but don't always know what to do with the things they copy. Leaving data bombs on random files has led to a number of unfortunate mishaps.

Yantra tend to travel in small, almost familial groups. They do not seem aggressive toward others and shy away from areas with active usage, coming out during system downtimes.

### YANTRA

A	S	D	F	L	I	C	EDG	R	SPK
4	3	5	5	3	4	5	6	5	6
DR	I/ID	AC	CM						
10	7/4	A1,15	13						

**Matrix Skills:** Cracking 5 (Cybercombat +2), Electronics 3 (Software +2)

**Qualities:** Munge, Real World Naïveté, Redundancy

**Complex Forms:** Data Bomb Eater, Static Bomb

**Programs:** Armor, Decryption, Exploit

**Attacks:**

Swordbreaker [Cybercombat, DV 1, AR 10, net hits reduce the Attack attribute]

Zap [Cybercombat, DV 1, AR 11]



## XENOSAPIENTS

(AI, EI, AND OTHERS)

While the protosapients are the equivalent of flora and fauna of the Matrix and Resonance Realms, xenosapients are much like metahumanity—only not. Metahumanity grew up in a biological world that shaped our basic needs, our wants, and how we respond to stimuli. The virtual world is alien to us, including the technomancer, for exactly that reason. The things that shaped these intelligent “life” forms are not the same forces that shaped our genetic lineage.

This disconnect from any shared history makes the xenosapients truly alien in their thinking and motives. This includes artificial intelligences, emergent intelligences, and the dreaded Null Sect. There are likely other xenosapients out in the wilds of the Matrix or in the Deep Resonance, but we have been unlucky (or lucky) that we have not met them.

### NULL SECT ENTITIES

The Null Sect are a race of Emerged intelligences that formed in the Deep Foundation outside of any metahuman influence. Speculation is that this layer of reality predates the new Matrix protocols—in fact, according to UnITY, the noo-

sphere and the Deep Foundation would have started forming in the mid-twentieth century shortly after electronic data processing and storage were invented. The Foundation-tech of the new Matrix protocols simply opened a pathway to this previously inaccessible realm.

When the Null Sect were first encountered in 2078, they completely ignored regular Matrix users and refused to interact with any cyberdeck or commlink-generated icons they encountered. Their reactions to technomancers and AI were universally hostile, however, sometimes even attacking on sight.

Over time, they have become more willing to communicate, at first through computer languages and later through regular metahuman languages, but they are still reclusive and extremely xenophobic. Through the limited dialogue reported by MCT, the Null Sect claim that they did not realize the Matrix icons of metahumans were anything other than the natural “landscape” or the “flora and fauna” of the hosts they were exploring. The Spark of AIs and the Resonance of a technomancer’s living persona allowed the Null Sect to recognize them as fellow living entities, but their extreme xenophobia provoked a consistently hostile reaction.

In early encounters, the Nulls used icons of gaunt, skinless humanoids with hollow eyes and a

gaping, roughly triangular mouth full of shark-like teeth. It's assumed that this is their native form, but it wasn't long after they discovered metahumanity that they started disguising their appearance. Currently, the members of the Null Sect use a variety of icons that blend in with the rest of what metahumanity uses in the Matrix. When they have no reason to hide, or maybe just for the shock value, they will still occasionally use their original icons.

The entities of the Null Sect are all self-aware individuals living in a complex society, but one very alien to what metahumans are familiar with. As individuals, they have attributes, skills, and abilities with the same range as other Emerged intelligences that have been better studied. The native language of the Null Sect is a complex binary code expressed in 128 bit—words, for lack of a better term—that has defied all efforts to translate. Currently, most of the Null Sect are fluent in a variety of metahuman languages, removing that barrier to communication.

Encounters with actual Null Sect entities are still extremely rare; they typically use their constructs—called golems by some—to carry out their actions in the upper Matrix. If encountered, they may be willing to communicate (or maybe not), but their actions are hard to predict. Reports from recent encounters have run the spectrum from immediately hostile without provocation to inquisitive and benign, simply looking to communicate.

## NUL SECT EXPLORER

Encounters with the Null Sect in the Matrix, or in a host, will most often occur with one of the entities who will identify themselves as explorers. From stories told by the few who have talked to an explorer, it is understood that this is not a job, but a title. Those few explorers willing to communicate also use the title as if it were a name and do so with a great deal of pride. The explorers almost never operate alone, bringing along an entourage of constructs in almost every encounter. These constructs will often stay hidden, preferring to observe silently. Below is a typical example of an explorer,

### NUL SECT EXPLORER

A	S	D	F	W	L	I	C	EDG	R	SPK
7	9	4	8	5	6	6	5	4	5	5.7
DR	I/ID	AC	CM							
12	10/3	A1,I4	11							

**Active Skills:** Cracking 6 (Cybercombat +2), Electronics 6

**Qualities:** Fnord, Noiseless

**Forms:** Diffusion (Firewall), Editor, Infusion (Stealth), Resonance Spike, Resonance Veil, Static Bomb

**Nullmods:** Disguise 4 (4 net hits on a Matrix Perception test to see its native icon)

**Programs:** Decryption, Stealth

**Attacks:**

Data Spike [Cybercombat, DV 4, AR 16]

but they are unique individuals and may be more or less powerful than this example.

## NUL SECT FORGEMASTER

Rarely encountered out of the Deep Foundation, the forgemasters are the entities that compile the Null Sect constructs. Although the methods used to create the golems remain a mystery, the forgemasters have gained an excellent understanding of metahuman-designed computer systems. They are expert programmers and hackers on par with the most skilled technomancers.

Forgemasters are believed to use a software forge, as the name implies, to create a variety of different Null Sect technological constructs. Based on a single reliable report, the forge is a large and unfathomably complex device that produces golems or other new constructs with astonishing speed. The reporting witness was not able to piece together how the forge worked or the exact process the forgemaster used, but the process required its full attention—perhaps the reason our lucky witness was able to escape with their story. The same witness also discovered that the forgemaster complex was a vast virtual structure guarded by hundreds of the strongest Null Sect constructs, and occupied by dozens of other Nulls with unknown statuses. Perhaps some were guards, servants, mates, apprentices, or offspring, or some combination of all of these.

### NUL SECT FORGEMASTER

A	S	D	F	W	L	I	C	EDG	R	SPK
8	7	8	9	6	7 (10)	6	5	6	8	5.3

DR	I/ID	AC	CM
19	14/4	A1,I5	15

**Active Skills:** Cracking 7 (Hacking +2, Cybercombat +3), Electronics 7 (Computer +2, Software +3), Influence 5

**Qualities:** Fnord, Noiseless, Real World Naïveté, Redundancy

**Forms:** Diffusion (Attack), Diffusion (Firewall), Infusion (Data Processing), Infusion (Firewall), Resonance Spike

**Submersion Level:** 2

**Echoes:** Overclocking, Syntax Error

**Nullmods:** Attribute Augmentation 3 (Logic), Disguise 2 (2 net hits on a Matrix Perception test to see its native icon)

**Programs:** Armor, Decryption, Rocket Launcher, Toolbox

**Attacks:**

Data Spike [Cybercombat, DV 6, AR 15]

## NUL SECT CONSTRUCTS/ GOLEMS

The Null Sect can create constructs—called golems—that fall somewhere between IC, sprites, and true xenosapient. While they are similar to other forms of digital life, golems lack the Spark of consciousness that allows free will. They are merely automatons created to carry out the instructions of the Null Sect. Teams of constructs communicate

with each other in the native binary language of the Null Sect, but outside of the warnings issued by Nights, they will not communicate in any other languages. All Null Sect constructs act as Patrol IC and run Matrix Perception when not engaged in another action. Some types can mimic the attacks of other forms of IC, while others run more typical Matrix actions. All constructs can fool the Matrix into believing they are a legitimate component and never accumulate an overwatch score.

The Null Sect sends out their golem constructs in groups depending on the parameters of the mission. The typical “general purpose” taskforce sent to accompany an explorer may comprise ten to twenty Nights and Days for perimeter security and general tasks, maybe a few Clears or a Crimson for special tasks, a handful of Greys for security, and a single Overseer. Other types of missions may call for hundreds of Clears sent into a data haven or a hit squad composed entirely of Greys and a few Overseers.

## NIGHT

Nights act as perimeter guards for Null Sect operations. Instead of attacking intruders on sight, they will issue a warning to leave an area. If they are operating in a pack, each one will issue warnings in a different language. If the warnings are ignored, the Nights will not wait long before they move in to attack. These constructs are completely jet-black and appear vaguely humanoid, but with arms that are too long and the tip of each finger ending in a sharp black claw. The faces of the Nights are smooth and featureless with no eyes or nose, just an overly large triangular mouth full of sharp teeth.

### NIGHT

A	S	D	F	W	L	I	C	EDG
7	6	4	4	3	5	6	2	2
DR	I/ID	AC	CM					
10	10/3	A1,I4	10					

**Matrix Skills:** Cracking 4, Electronics 4

**Qualities:** Noiseless, Real World Naïveté, Fnord, Virtual Processing

**Programs:** Armor, Biofeedback, Fork, Lockdown, Stealth

**Weapons:**

Slashing Claws [Cybercombat, DV 4, AR 14]

Corrode [Cybercombat, DV 0, AR 13, net hits reduce the Firewall attribute]

## DAY

Days appear as bright, washed-out entities and work with Night constructs as perimeter security during the operations ordered by their overlords. Instead of a warning, Days will stay back and gather information on the intruders for as long as they can before attacking with the Nights. Some people report that after being studied by a Day, they feel

like it continues to watch them whenever they are in the Matrix, sometimes for months afterward.

### DAY

A	S	D	F	W	L	I	C	EDG
6	7	4	4	3	5	6	2	2
DR	I/ID	AC	CM					
10	10/3	A1,I4	10					

**Matrix Skills:** Cracking 4, Electronics 4

**Qualities:** Noiseless, Real World Naïveté, Fnord, Virtual Processing

**Programs:** Armor, Biofeedback, Fork, Lockdown, Stealth

**Weapons:**

Slashing Claws [Cybercombat, DV 4, AR 14]

Null Mark [Cybercombat, DV 1, AR 13, net hits reduce the Sleaze attribute]

## CRIMSON

Thankfully, Crimsons are rarely seen. They have the same outline as the other basic constructs, but no mouth, and their skin seems to be covered in tiny tentacles. They are actually composed of hundreds of individual red worm-like icons acting in unison. They peel off the main body to attack en masse by wiggling into gear. In game terms, when the Crimsons’ individual components swarm the devices in a PAN, it’s akin to hitting each device with a Brute Force attack, gaining user and then admin access to the devices associated with icons. Once they have control, they will randomly use Control Device (to cause a random action), Crash Program, Format Device, and Reboot Device actions.

### CRIMSON

A	S	D	F	W	L	I	C	EDG
7	6	4	4	4	5	3	3	2
DR	I/ID	AC	CM					
10	7/3	A1,I4	10					

**Matrix Skills:** Cracking 6 (Cybercombat +2), Electronics 5

**Qualities:** Authority, Noiseless, Real World Naïveté, Virtual Processing

**Programs:** Armor, Biofeedback, Exploit, Fork, Lockdown, Stealth

**Weapons:**

Data Spike [Cybercombat, DV 4, AR 13]

## CLEAR

These constructs operate in packs and only exist to erase information. They will not engage in combat, and if attacked, they will attempt to flee, returning to their assigned job as soon as it’s safe to do so. If you manage to spot one, they appear as a colorless, translucent version of the other basic constructs. In game terms, Clears use Probe and Backdoor Entry to gain access to devices. Once inside a device or a host, they run Edit File, with Crack File if necessary, until all the data is erased (or they are destroyed). They always run silently and execute Hide actions when spotted or attacked.

**CLEAR**

A	S	D	F	W	L	I	C	EDG
5	8	4	4	2	5	6	4	2
DR	I/ID	AC	CM					
10	10/3	A1,I4	10					

**Matrix Skills:** Cracking 4, Electronics 4**Qualities:** Noiseless, Real World Naïveté, Virtual Processing**Programs:** Armor, Edit, Fork, Stealth**Attacks:**

None

**GREY**

Greys are Null Sect hitmen, and the most dangerous golem constructs outside of the Overseers. They appear as humanoid figures wearing long grey trench coats with high collars and wide-brimmed hats. It's uncanny how they bear a striking resemblance, at a quick glance, to the generic icon of a demi-GOD. Once you get a better look, you will notice that their skin is the same grey color as the coat and hat. You will also see they have the same blank featureless faces and gaping mouth full of teeth as other constructs. The Greys are extremely skilled at sizing up their opposition. If they believe they have the advantage, they will attack directly, but if not, they will set up an ambush for their target. In addition to using the base constructs as a diversion, they will make full use of their Authority quality to hack and sabotage their opponent's gear before striking.

**GREY**

A	S	D	F	W	L	I	C	EDG
12	6	5	5	2	7	2	1	3
DR	I/ID	AC	CM					
12	7/3	A1,I4	11					

**Matrix Skills:** Cracking 5 (Cybercombat +2), Electronics 5**Qualities:** Authority, Noiseless, Real World Naïveté, Virtual Processing**Programs:** Armor, Fork, Stealth**Weapons:**

Slashing Claws [Cybercombat, DV 7, AR 19]

Tarpit [Cybercombat, DV 1, AR 16]

**OVERSEER**

These are the most sophisticated and dangerous golem constructs of the Null Sect. Overseers appear as a version of the Greys, but with defined, humanoid facial features. The only constructs that are not monochromatic, they have black overcoats and hats, ice-white skin, blood-red eyes without an iris or pupil, and a triangular mouth full of shark teeth like most Null constructs. Overseers are the lieutenants of the Null Sect, and their overlords often place them in charge of teams of lesser constructs, with sometimes hundreds serving under

each overseer. Like all constructs, they exist only to carry out the instructions of their overlords. Overseers will not engage in any type of communication; they cannot be negotiated with, reasoned with, or intimidated. In fact, the only way to stop them from carrying out their assigned missions is to destroy them.

**OVERSEER**

A	S	D	F	W	L	I	C	EDG
12	8	8	10	7	7	5	3	Host rating

DR	I/ID	AC	CM
20	13/3	A1,I4	13

**Matrix Skills:** Cracking 7 (Cybercombat +2), Electronics 7, Influence 1 (Intimidation +2)**Qualities:** Authority, Noiseless, Real World Naïveté, Virtual Processing**Programs:** Armor, Biofeedback, Exploit, Fork, Stealth**Weapons:**

Death Grip [Cybercombat, DV 6, AR 20, Special Null Attack:

Psychotropic Biofeedback]

Swordbreaker [Cybercombat, DV 1, AR 20, net hits reduce the Attack attribute]

**TECHNOCRITTERS**

While not a virtual life form, these animals have a natural connection to the Matrix and to the Resonance, allowing them to project a living persona into the Matrix like a technomancer and use information to help them hunt. Nobody's sure why they have evolved, or if this is just another of the Awakenings that plague our world. You won't find any extra antennae on these critters, as Emerged creatures look just like normal animals. So while we can't explain why they are here, we can study them. Initial research was unsure why many of these creatures can access the Matrix, but more recent theories are tied to the unified information theory, where data access patterns and logical paths drive them.

**BASTET**

Has a cat ever stared you in the eye while it knocks a full glass of water off a table? Now imagine the same thing in an Emerged cat. Bastets (named after the Egyptian goddess) are all varieties of Emerged cat. Whether it's a cougar jamming the wireless signal of your gun while it pounces on you or a house cat using cameras in the area to know where you are while remaining hidden themselves, these things can be all kinds of nuisance. Many corps have spent huge amounts of resources trying to train them, but to date their hunger for Resonance overwhelms any conditioning they receive. On the plus side, smaller versions are especially prone to being distracted by colorful AR or VR phenomena, so that can be one way to get them off your case.

**BASTET**

B	A	R	S	W	L	I	C	EDG	R	ESS
2	3	3	1	3	2	4	3	7	5	6
DR	I/ID	AC	CM							
2	7/1	A1,I2	10							

M DR	M I/ID	M AC	M CM
5	6/4	A1,I5	10

**Skills:** Athletics 4, Close Combat 4, Cracking 4, Electronics 4, Perception 5**Complex Forms:** Diffusion (Attack), Infusion (Sleaze), Pulse Storm**Attacks:**

Claws/bite [Close Combat, DV 3P, 6/-/-/-]

Digital Scratch [Cybercombat, DV 2, AR 8]

Spray [Cybercombat, DV 0, DV 7, Crash]

**FLIPPER**

Flippers are an Emerged form of the common bottlenose dolphin. They are quite playful, and while they are seen around aquacologies and ocean-going ships, they are most frequently seen trailing cruise ships. The theory is that they enjoy joining in some of the Matrix games that are part of the entertainment aboard these ships. They aren't aggressive compared to other technocritters, but their mischievousness can certainly be an annoyance. They swim in the Matrix the same as they swim through water, sometimes doing things for no apparent reason. Where a cruise ship likes these creatures for helping entertain guests, many aquacologies have had to engage in a variety of security measures to keep them away, but flippers are frustratingly good at defeating whatever measures they put in place.

**FLIPPER**

B	A	R	S	W	L	I	C	EDG	R	ESS
3	4	4	2	4	3	5	4	5	5	6
DR	I/ID	AC	CM							
3	9/1	A1,I2	10							

M DR	M I/ID	M AC	M CM
7	8/4	A1,I5	10

**Skills:** Athletics 4, Close Combat 2, Cracking 5, Electronics 5, Perception 5**Complex Forms:** Diffusion (Firewall), Editor, Infusion (Sleaze), Tattletale**Attacks:**

Bite [Close Combat, DV 2P, 6/-/-/-]

Digital Bite [Cybercombat, DV 2, AR 8]

**G33KO**

These might be the most obnoxious little bastards on the planet, and you should geek every single one you find! The major problem with these little lizards is that they sneak in when you aren't using your gear, and then they overheat your stuff to give them some warmth. Half the time, you come out with bricked equipment; the rest of the time, your device won't work right.

The g33kos are expanding their habitat because of their ability to overheat devices, giving them

more places to safely live. Major structures in cities all over are getting g33kos as they hitch a ride with travelers, so make sure to check your luggage before you leave a tropical locale; this invasive species is going to be a major problem for big cities with tons of devices if we don't keep the population in control. They breed at a truly astonishing rate.

**G33KO**

B	A	R	S	W	L	I	C	EDG	R	ESS
1	4	4	1	2	1	3	2	2	6	6
DR	I/ID	AC	CM							
1	7/1	A1,I2	9							

M DR	M I/ID	M AC	M CM
3	4/4	A1,I5	9

**Skills:** Athletics 3, Close Combat 1, Cracking 3, Electronics 3, Perception 4**Complex Forms:** Diffusion (Attack), Diffusion (Firewall), Infusion (Sleaze), Puppeteer, Resonance Spike**Attacks:**

Bite [Close Combat, DV 1P, 5/-/-/-]

Digital Bite [Cybercombat, DV 1, AR 4]

Overheat [Cybercombat, DV 0, AR 5, on a single net hit, Overheat changes the device settings to discharge the battery, overheating the device; it then causes 1 box of Matrix damage every 30 minutes]

**LIBERTINE**

Native to North America, the emerged raccoon, also known as the libertine, is a huge pain. They are cute when they wash their hands before they eat, but less so when they start rifling through your digital belongings, looking for anything worth stealing or destroying. If you must spend time outside at night, whether in the city or out in the wilderness, make sure to secure your commlink or just turn it off. They dig through anything not protected, get into things they are not supposed to, and otherwise disrupt any order people attempt to impose on their surroundings. They are generally not hostile and do not directly attack other personas, but they can still cause disruption and annoyance. A word of friendly advice: When scoping out a place that you are targeting, also check out for these nuisances, as they love to spend time undoing any backdoor you may have left in place.

**LIBERTINE**

B	A	R	S	W	L	I	C	EDG	R	ESS
2	3	3	1	3	1	4	2	3	3	6
DR	I/ID	AC	CM							
2	7/1	A1,I2	10							

M DR	M I/ID	M AC	M CM
4	5/4	A1,I5	10

**Skills:** Athletics 2, Close Combat 2, Cracking 4, Electronics 4, Perception 4**Complex Forms:** Diffusion (Data Processing), Editor, Static Bomb**Attacks:**

Claws/bite [Close Combat, DV 2P, 4/-/-/-]

Digital Scratch [Cybercombat, DV 1, AR 7]

Corrupting Touch [Cybercombat, DV 1, AR 6, causes the target to possess the Gremlins negative quality for 1d6 hours; additional attacks add +1 hour to the special effect]

## PACHYDERM

Elephants are some of the most emotionally intelligent creatures on the planet. These Emerged, gentle giants are more intent on the preservation and protection of data, which makes them rare for the technicus subspecies. The small remaining population of wild elephants means the technicus population is a prized commodity, especially among those with a flexible (or fractured) moral fiber. However, some are currently housed at research facilities and even at zoos.

The technicus pachyderm variant gathers near sites where other technicus species and technosapients corrupt the data of the world. In the wild, this often appears as pachyderms moving into apparently unsettled regions, leading to the exposure of nefarious sites and secret research facilities. The elephants' presence offers protection from mungers but opens the site up to potential runners who know about the variant species or can identify them with some level of accuracy.

### PACHYDERM

B	A	R	S	W	L	I	C	EDG	R	ESS
12	3	3	16	3	2	4	3	3	6	6
DR	I/ID	AC	CM							
12	7/1	A1,12	14							
M DR	M I/ID	M AC	M CM							
5	6/4	A1,15	10							

**Skills:** Athletics 3, Close Combat 4, Cracking 6, Electronics 6, Perception 3

**Complex Forms:** Diffusion (Firewall), Infusion (Data Processing), Resonance Veil, Tattletale

**Attacks:**

- Trunk [Close Combat, DV 6S, 19/-/-/-/-]
- Tusk/Stomp [Close Combat, DV 8P, 19/-/-/-/-]
- Tarpit [Cybercombat, DV 1, AR 7]
- Data Spike [Cybercombat, DV 2, AR 7]

## INHERENT VIRTUAL LIFE FORM QUALITIES

These qualities are inherent to some protosapients and other virtual life. These qualities cannot be purchased and are only listed in the profiles of digital life forms.

### AUTHORITY

The Null convinces devices that its orders are coming from a trusted and privileged source: the owner. Whenever the Null uses Control Device of Spoof Command action, the Null gains 1 Edge that must be spent as part of the action, or vanish.

### ENTROPIC CONVERSION

Some protosapients have the rare ability to heal damage to their core code by reducing the ambient structural organization of the surrounding Matrix—that is, by increasing entropy and converting the siphoned “organizational energy” into its own structure through reverse entropy. With a Major Action, the entity heals 1D6 boxes of damage on its Matrix Condition Monitor and increases the ambient noise of the area by the same amount. Ambient noise subsides by 1 point per hour until it returns to normal.

### FNORD

A Null can stay hidden from any GOD or anyone else in the Matrix it wishes. There is no mechanic attached to it. The Null simply disappears into the depth of the Matrix ...

### MALLEABLE ICON

Entities with this ability can change their Matrix icon to mimic any other icon they have seen recently. While the ability does not stand up to heavy scrutiny, at first glance, it is very convincing. A single hit with Matrix Perception will see past it.

### MUNGE

Protosapients eat code to upgrade and maintain their own coding structure. This process is called munging (pronounced “mun-jing”). When a protosapient munges data, it leaves behind random data that usually destroys or distorts whatever is being munged. For example, a munged icon might look like an indistinct mess, while a munged program would become either buggy or completely unusable.

Munging a piece of data is an Opposed test to eat the data or code that is defended by the host or device the data lives on. The protosapient makes a



Charisma + Attack vs. Firewall + Data Processing Opposed test. If the protosapien fails, the data remains intact.

To munge a file, the protosapien must have access to it. To munge a program, the protosapien must be in either the same host in which the program is running or the same network as the persona running the program.

The gamemaster determines the extent of the damage caused by munging data using the following guidelines: an Agent/Pilot program or skill/know/activesoft should have its rating decreased by the Attack of the munging critter. If this causes the munged software to reach a rating of 0, the software is totally destroyed. The gamemaster may impose a threshold equal to the munging critter's Data Processing to read a file that has been munged with a Matrix Perception test. Icons may become twisted and corrupted, making them less identifiable, or at the very least more disturbing.

## MUNGE SPARK

While most protosapients munge code to maintain their own digital structure, a few have learned to survive by munging the actual Spark of other digital life forms. This is basically vampirism within the digital realm.

To use this ability, the victim must be immobilized during the entire process, typically by using the Paralyze attack (or maybe repeated applications of the Tar Pit Matrix attack). Munge Spark requires a Minor Action once per combat round and must be continued every following round while keeping the victim immobilized. Munging to drain a point of Spark takes a Charisma + Attack ([12 – target's Spark]), 1 combat round) Extended test to drain a single point of Spark. If the attacker is interrupted during this process, or the victim manages to recover and escape before the threshold is reached, the life force remains intact, and the Spark is not drained. If a target's Spark is drained to 0, the digital life form dies. Typically, protosapients and xenosapients have 6 Spark, while sprites have an amount of Spark equal to their level. Partially reducing a sprite's Spark lowers their level by the same amount.

Munge Spark adds the stolen life force to the attacker's own Spark, but this can only increase the Spark to twice its natural maximum. Any Spark drained beyond this point is lost; the critter's core can only hold so much at a time. Once a protosapien starts to use Munge Spark to survive, their own Spark becomes unstable, and they will lose 1 Spark per week, even falling below their original level, forcing them to hunt new victims.

## NOISELESS

For game purposes, Nulls are simply immune to Noise, at least based on distance. Gamemasters

ters may allow Nulls to be affected by other sources of Noise (like one generated by a hacker or spam zones).

## PRIMAL RAGE

The protosapient works itself into a frenzy due to damage it has received. All attacks by this protosapient gain +1 DV for each level of wound penalty it is currently suffering.

## SPECIAL PROTOSAPIENT ATTACK: NOISESTORM

As a Major Action, a protosapient using a noisestorm can make an Electronics + Logic test where net hits increase the amount of noise in the area. This can either target a network and affect all devices connected to it or target a specific device and use it as ground zero to affect all devices within (Spark x 10)-meter radius of its physical location. The protosapient is immune to this noise.

## SPECIAL NULL ATTACK: PSYCHOTROPIC BIOFEEDBACK

Overseers can afflict their targets with psychotropic biofeedback. This means Overseers inflict Biofeedback damage. Each time actual damage is inflicted, the target must make a Willpower + Firewall test with a threshold equal to the Attack's net hits to avoid suffering from a psychotropic effect.

Psychotropic effects are short-term emotional adjustments lasting for  $(2d6 - \text{Edge})$  hours. This may include effects such as aversions to certain objects or activities, the desire for a certain product, complacency or lethargy, guilt, paranoia, aversion to the Matrix, other phobias, and so on. Short-term memory loss is also an option. The target cannot be largely incapacitated or reduced to a catatonic state, but they will behave in a markedly strange fashion.

## VIRTUAL PROCESSING

Nulls do not truly execute programs. The provided list is just a way to simulate some of their abilities. They always run all of their programs.

## INTELLIGENCE REVEALED

Artificial intelligence (AIs) or Emergent intelligence (EIs) is hard to classify in both metaphysical terms and concrete game terms. At their most basic level, they are both sophisticated programs that can run personas on Matrix devices and device-less personas that can project themselves using the distributed device network that generates

the new Matrix. Artificial Intelligence came from the Matrix—code that became self-aware. Emergent intelligence is a new variation of an artificial intelligence that comes from the Deep Foundation, or maybe even the Resonance Realms, and maintains a connection to the Resonance.

A player is not guaranteed the option of playing an AI or EI character; it is at the gamemaster's discretion for this optional rule. The gamemaster should take caution when introducing AI and EI characters into their campaign, as their abilities can potentially disturb the balance of a game. To minimize this, gamemasters should remember that while AIs and EIs currently have some good PR going for them, most people are quick to blame AIs or EIs for any Matrix-related mishaps, and many don't see them as deserving treatment equal to that of metahumans. Also, a large portion of the new Matrix protocols were specifically created to keep AIs and now EIs in check. GOD will mercilessly attack or arrest them just like Knight Errant will pursue a criminal in the physical world.

AIs and EIs can reside in an empty cyberprogram or autosoft slot like agents and pilot programs, but they can also exist without a device in a host. They have their own Matrix Condition Monitor, and any damage is tracked separately from a device they may be running on. Ultimately, it might be easiest for gamemasters and players to think of AIs or EIs as something like digital spirits. While the AIs of the old Matrix may have been godlike in their powers, the AIs and EIs of today are far more varied in cognizance, abilities, and personalities.

As native denizens of the Matrix, AIs and EI are naturally attuned to its ebb and flow. This familiarity grants them a point of Edge on any Matrix Perception tests, which must be spent on the test or lost.

Because AIs and EIs don't have bodies, they lack a true understanding of human appearances and mannerisms. AIs and EIs often seem unsettling, close but not quite human in their communication with metahumans. This is referred to as the uncanny valley. AI and EI grant a point of Edge to whomever they are interacting with in Social tests because of this.

## STEP ONE: DEFINE YOUR ROLE AND HISTORY

Defining your history will help the entire process of creating your character. Artificial intelligences are part of the classification of xenosapients, or alien intelligences. What makes them so alien? Much of metahuman life is built around their biological needs, but no biological needs drive a xenosapient's evolution. Their goals and desires can be completely alien to the thinking of a metahuman.

So where did you come from? Were you originally a drone pilot when suddenly the Spark of life

## Als: THE SPARK OF LIFE AND THE SOUL OF A NEW MACHINE

It would be fair to say that Als are essentially immortal. They're immune to biological disease and aging. They also don't need food, water, air, heat, or rest (though the process of restoration is analogous to sleeping and dreaming). But Als and EIs still have needs of their own—they can be captured, and their lives are more fragile than you might think. AI and EI characters have a Spark attribute, which is analogous to Essence. However, this is not typical Essence and cannot be drained by Essence Drain. For all other intents and purposes, it is digital essence. When an AI or EI is disrupted, they risk losing Spark through fragmentation. If their Spark is ever reduced to 0, the character is killed.

Als can exist on the Matrix. Often, they will take up lodging in devices or hosts for additional protection, since the Matrix is a dangerous place. Devices provide additional armor (increases Defense rating), while hosts provide the virtual horizon to hide behind. In addition, devices provide the Als a way to run programs without needing to emulate programs from the surrounding Matrix. Als do need to be in a host or a device for restoration and realignment, or to run programs without emulation (see **Restoration and Re-alignment**, p. 124).

gave you awareness? Were you a data processing agent that saw more in the patterns that awakened you from your ignorance? Maybe you started as an e-ghost that believes it was once a living metahuman who died in the Matrix. Or possibly, you were born in the Deep Foundation or one of the Resonance Realms, and your curiosity about these bags of meat and water enticed you into the thin layer they call the Matrix?

## STEP TWO: SELECT CHARACTER PRIORITIES

The Exo-AI variants cannot be player characters and are only presented for gamemaster refer-

ence. However, the other AI variants are available to players and are created using the Priority (p. 64, SR6), Point Buy, or Sum-to-Ten character generation method. AI characters cannot be created using the Life Module build system. As is always the case with NPCs, the chances of running into one that is either well behind or well ahead of the power level of character generation are high. Of course, being an amalgamation of code and processing power is different than being a living, breathing person, so the character creation process is tweaked to reflect this. Unless specifically stated otherwise in this section, the character creation process still follows the same rules and processes in the core rulebook. An AI character is considered mundane, while an EI has access to the Resonance.

For Point Buy, all normal rules and point costs are the same. Mundane AI cost no additional CP, and EI cost 10 CP, matching the cost of technomancers. AI and EI cannot choose Magic as a part of the Point Buy system.

## ATTRIBUTES

Artificial intelligences don't have bodies in the traditional (or even non-traditional) sense. Indeed, many of them find the idea of physical sensation equally repulsive and compelling. However, they possess roughly the same level of mental faculties as metahumans. The sheer volume of processing power inherent to an AI grants it a slightly higher ceiling for cognition, but the lack of a shared knowledge base, combined with the obvious difficulties translating the experiences of the Matrix to those of the meatworld (and vice versa), means they are less likely to instinctively grasp unusual or unfamiliar situations. It should also go without saying that there are no varieties of AIs that can have a Magic attribute.

### AI-VARIANT ATTRIBUTE TABLE

Artificial Intelligence characters use the standard Priority System as found on p. 63-66. In terms of Metatype Adjustment points, an AI is equivalent to a troll or an ork and can have up to Priority A. These points can only be spent on Resonance, Edge, or attributes with a racial maximum greater than 6.

VARIANT	F	S	D	A	WIL	LOG	INT	CHA	EDG	SPK
Pilot-AI	1-6	1-6	1-7	1-7	1-6	1-5	1-8	1-5	1-6	6
<b>Racial Qualities:</b> Pilot Origins 1, Sensor Upgrade										
Agent-AI	1-6	1-6	1-8	1-7	1-6	1-6	1-6	1-6	1-7	6
<b>Racial Qualities:</b> Photographic Memory										
Deep Foundation-AI	1-7	1-6	1-6	1-7	1-7	1-7	1-6	1-5	1-6	6
<b>Racial Qualities:</b> Photographic Memory, Real World Naïveté										
Realms-AI	1-6	1-8	1-5	1-6	1-5	1-6	1-7	1-7	1-6	6
<b>Racial Qualities:</b> Hello World!, Photographic Memory, Real World Naïveté										
Exo-AI	1-9	1-9	1-9	1-9	1-7	1-8	1-7	1-4	1-6	6
<b>Racial Qualities:</b> Designer, Multiprocessing, Photographic Memory, Real World Naïveté, Uncouth										

## MATRIX EQUIVALENT ATTRIBUTES

Physical Attribute	Matrix Equivalent
Body	Firewall
Agility	Data Processing
Reaction	Sleaze
Strength	Attack

## SKILLS

Obviously, the lack of a body limits the usefulness of several Active skills. An AI or EI may still learn any active skill at the normal cost when remotely controlling devices or for using as part of Teamwork tests.

The most useful set of skills that an AI or EI will take is of course Cracking and Electronics. It's the bread and margarine of any good Matrix entity. The next set of helpful skills are the social skills of Influence and Con. Last are the skills that are only going to be useful if you have the proper drone body. They include mobility and manipulation options, whether that means controlling a drone or vehicle, using mechanical arms and tools, or just using sensors. These are Piloting, Engineering, Perception, and Stealth, along with the Combat skills of Close Combat, Firearms, or Exotic Weapons. That requires both a proper body and the appropriate weapon.

Biotech and Outdoors can be useful, but primarily when helping your peers during Teamwork tests; if you didn't take Resonance at D or higher priority, then Tasking is not useful. This leaves us with the skills that are impossible without a living physical body, or at least some astral equivalent of one. Astral, Conjuring, Enchanting, and Sorcery require a Magic rating, so these are all out.

In addition to Active skills, skill points that you have received from the priority table can also be spent on a wide variety of extra Knowledge and Language skills, beyond the few that you will receive for free. A little extra knowledge like this can prove very useful in the shadows.

## RESONANCE

If you select Resonance at D or higher from the priority table, congratulations! You aren't just a run-of-the-mill artificial intelligence, but instead an Emergent intelligence, or EI. This ability isn't limited to entities formed in the Deep Foundation or the Resonance Realms; it can also manifest in those created from more mundane code. Also, just because you were formed as a Realms-AI doesn't mean that you have retained that connection to the Resonance. As an Emergent intelligence, you have a deep connection to the Resonance which enables you to use complex forms and sprites, and even

submerge to learn deeper mysteries of the Resonance Realms. The EI will gain complex forms equal to Resonance x 2, using the Resonance value in the priority table found on p. 64, SR6.

An Emergent intelligence is quite similar to a technomancer. They can develop and implement complex forms, summon sprites from the Resonance, and deepen their Resonance connection through a process called submersion. However, an EI's living persona is different from a technomancer's because the EI has Matrix attributes as part of their character generation. The EI's living persona can use the bonus points equal to their Resonance to raise Matrix attributes by no more than fifty percent of its base (rounded up, to a maximum of +4).

The natural maximum for your Resonance attribute is  $6 + \text{your Submersion grade}$  (reduced by 1 for every full point of Spark lost), but any time your Spark drops below any whole integer, you still lose a corresponding point of your current Resonance. Increasing your maximum does not automatically increase your Resonance attribute either; you still must spend Karma to increase your Resonance attribute.

## STEP THREE: SELECT QUALITIES

Due to their unique nature, AIs and EIs may not select certain qualities. The qualities available to normal metahuman characters may not be suitable for AI and EI characters, and it is the sole discretion of the gamemaster which may be taken. AIs and EIs have the same limits on purchasing qualities that metahuman characters have. In addition to the listed qualities, AIs and EIs may possess traits that are unique to them. AI and EI characters can purchase any virtual life form qualities, except those in the Inherent Virtual Life Form Qualities, p. 114.

## STEP FOUR: SPEND CUSTOMIZATION KARMA

Each AI or EI character receives 50 Karma to spend on character advancements, such as skills, attributes, qualities, and additional funds for gear or lifestyle. EI can spend Karma to submerge during character generation. You may begin play with no more than 5 Karma remaining unspent.

## STEP FIVE: BUY GEAR

By now, you should have a pool of nuyen from both your Resources selection on the Priority Table and from any Karma that you have converted into cash. You can buy any gear you need—just be aware that the armor jacket or data tap will

be difficult to use if you don't have a drone with articulated arms.

Good things to spend your nuyen on are hosts, drones, and devices that can act as your home and processing centers. While you can execute programs, you will be pulling from the surrounding Matrix to compute, and that can make you a target for GOD to find. Having a solid fake SIN (or maybe a real one) can be helpful when dealing with demiGOD, which would normally just take an AI and throw them into cold storage. While EIIs may shy away from Spark-reducing codemods, they may be just the thing for a non-emerged AI to keep an advantage over their younger Resonant brethren.

On the plus side, you won't need to resort to eating cold soy noodles without any flavor packets.

## STEP SIX: FINISHING TOUCHES

### CONTACTS

Even as an AI or EI, you will have contacts both inside the Matrix and out in meat space. The main restriction is that an AI or EI cannot contact a magical entity such as a spirit, so even earned contacts will be severely limited in terms of how they can help. The rules for contacts can be found on SR6, p. 66-67; as with the core rules, you gain Charisma x 6 points to spend on Connection and Loyalty, where neither rating can be higher than your character's Charisma.

### KNOWLEDGE AND LANGUAGE SKILLS

It's part of the name for AI and EI that you have intelligence. Knowing things is probably your schtick. You might know about the secret routes through the wild Matrix or be a deep expert in pop culture for one of the technomancer tribes. The things you know help define you. As per the rules on SR6, p. 67, you gain Knowledge and Language skill points equal to your Logic (plus 1 free Native Language), but you also may transfer skill points from the Active skills for Knowledge skills.

### FINAL CALCULATIONS

Once you have completed all your purchases and adjustments, there are a few calculations to finish your character. Attack rating for an AI will come from their Attack + Sleaze. An AI's Defense rating is Data Processing + Firewall. Initiative for an AI is always based on hot-sim VR, so it will be Intuition + Data Processing + 3d6. For more details on this, please see p. 179, SR6.

An AI has a single Matrix Condition Monitor equal to  $[(\text{Firewall} / 2, \text{rounded up}) + 8]$ . When the Matrix Condition Monitor is filled, the AI is

disrupted. An AI has no limit on Matrix damage overflow.

## POSITIVE VIRTUAL LIFE FORM QUALITIES

These qualities are used by AI, EI, protosapients, and other virtual life. They are restricted to virtual life forms.

### CHATTY

- Cost: 12 Karma

The character is especially comfortable behind the mask of anonymity offered by the Matrix. The extra confidence grants the character a point of Edge when communicating via AR or VR.

### DESIGNER

- Cost: 6 Karma

Some AIs are experts at restructuring firmware to achieve maximum hardware efficiency. Their self-designed home device (see **Restoration and Realignment**, p. 124) grants them an additional +1 modifier to the Data Processing or Pilot attribute and 2 points of noise reduction.

### HELLO WORLD!

- Cost: 8 Karma

AIs with this quality have an ingrained set of sanity-checking measures that help prevent Fragmentation after disruption. AIs with Hello World gain a point of Edge on any tests to resist Spark loss. The point of Edge must be spent on the Resistance test, or it is lost.

### INHERENT PROGRAM

- Cost: 7 Karma

This AI evolved from a specific cyberprogram and never lost the functionality of that program. Players may pick one common or hacking cyberprogram (but not an autosoft) as an integral part of their character's Core. Inherent programs don't require an empty program slot other than the one the AI is currently occupying and are considered to be running at all times. An inherent program is deeply intertwined with the core programming of the AI and cannot be crashed with the Crash Program action. An illegal program does not accumulate any overwatch score (OS), except for any actions using it.

### IMPROVED RESTORATION

- Cost: 7 Karma

AIs with this quality evolved more effective regeneration routines in their source code. For every

interval of the Extended Healing test, if at least a single hit is rolled, one additional box on the Matrix Condition Monitor is healed.

## LOW PROFILE

- Cost: 10 Karma

This AI has learned to minimize its shadow in the Matrix, allowing it to operate for longer periods of time before convergence. AIs with this quality require their OS to reach 60 before convergence happens.

## MULTIPROCESSING

- Cost: 11 Karma

Multiprocessing grants the ability to process information simultaneously from multiple sources while online. Combat still requires the AI's full attention, but multiple types of other, more mundane tasks can be handled simultaneously. For example, an AI with this quality can browse the Matrix and simultaneously hold a conference call, providing full attention to each channel of information. *Observe in Detail* (p. 43, SR6) and Matrix Perception tests (except when it's an Opposed test) count as Minor Actions for the character. The AI also receives an additional Minor Action per turn when not directly engaged in Matrix or vehicle combat. The AI can simultaneously observe a number of information sources equal to its Data Processing.

## PILOT ORIGINS

- Cost: 8 Karma per Level (max 3)

An AI with this quality likely evolved from a drone pilot program and retained its abilities. The AI may jump into drones and vehicles, controlling them like a rigger. Each level of this quality grants the bonus of a control rig of an equal rating. The AI is also capable of loading, converting, and using drone autosofts equal to its Data Processing (AI-driven drones use the attributes, skills, and Matrix Initiative of the AI). As a side note, this is piloting by pure calculation and data processing; it does not include the simsense processing ability of the Control Rig Integration codemod. The two methods are incompatible and do not stack with each other or with any Resonant echoes.

## REDUNDANCY

- Cost: 8 Karma

Essential algorithms, routines, and other program structures are multiplied in the core of the virtual life form, making it harder to kill. The life form gets two additional boxes on its Matrix Condition Monitor. These additional boxes will stack

with any boxes gained from the codemod Core Code Redundancy.

## SAPPER

- Cost: 6 Karma

The AI has an intuitive sense for vulnerabilities in boot code. It receives 1 point of Edge on all Format Device actions. This Edge must be spent on the action or is lost.

## SENSOR UPGRADE

- Cost: 5 Karma

The AI is an expert at tweaking the sensor settings of devices linked to it. The AI adds a +1 to the Sensor rating of any vehicle, drone, or device that is linked to its icon. All functions of a single sensor array gain this bonus, if applicable. This bonus also applies to any device the AI is currently running on.

## SNOOPER

- Cost: 8 Karma

The virtual life form is more effective at accessing and manipulating communication streams. It receives an Edge when performing Snoop and Jam Signal actions. The Edge must be spent on the test, or it goes away.

## VIRTUAL STABILITY

- Cost: 5 Karma

This AI is an expert at juggling system resources to run more programs with less exertion. The AI can load the Virtual Machine cyberprogram on a device, a sideload driver, or emulate it on the grid without taking the additional box of Matrix damage that is normally inflicted when its persona is damaged.

## NEGATIVE VIRTUAL LIFE FORM QUALITIES

### CASCADING FAILURE

- Bonus: 9 Karma

The AI suffers from additional system failures while operating with damaged code. AIs who have this quality and are wounded increase their wound penalty by 1 point. This means one wound will cause the first modifier.

### CORRUPTOR

- Bonus: 10 Karma

Virtual lifeforms with the Corruptor negative quality suffered fundamental defects to their pro-

gramming during their evolution. The critter has an unfortunate tendency to trigger malfunctions in other programs sharing the same device. Treat this as if the life form has the Gremlins quality (p. 76, SR6). The gamemaster should make use of this quality for dramatic effect as best suits the story.

## DOOMSCROLLING

- **Bonus:** 4 Karma

With so much content on the Matrix to peruse, it is difficult for an AI or EI to properly take the time to do their restoration. Each day, the AI must make a Firewall + Willpower (3) test to successfully complete restoration. If they fail, they cannot gain more than 2 Edge from any source of Edge that day.

## EASILY EXPLOITABLE

- **Bonus:** 8 Karma

This AI has a massive flaw in its code that weakens the security of any device it runs on. The AI doesn't provide a bonus to the Firewall attribute when it optimizes a device. Any time Firewall is used in an Opposed test, the AI's opponent gains an extra point of Edge that must be used on the test or lost.

## FRAGMENTATION

- **Bonus:** 18 Karma

During its birth, or because of permanent Spark damage, the AI's core programming was fractured and failed to fully merge properly—or a core element of its programming was somehow deleted or lost. This creates fundamental flaws in the AI's personality. Fragmented AIs suffer from effects that make their behavior unpredictable. The gamemaster should choose an appropriate option for the AI, one that both makes its character unique and hampers its functioning. The Fragmentation Suggestions table offers some examples of existing negative qualities. At the gamemaster's discretion, this quality may inflict negative dice pool modifiers to certain tests, especially social interactions. If chosen at character creation, the character starts off with Spark 5 instead of the normal Spark 6. If this quality is gained during play due to disruption, the AI loses 1 point of Spark. If they have 0 or less Spark, they die. In addition, any Spark lost to fragmentation cannot be filled with codemods or converted using Neuromorphism.

## INVALID INFERENCES

- **Bonus:** 5 Karma

This AI's base code makes it difficult to learn the right things from all the data collected. Increases-

## FRAGMENTATION SUGGESTIONS

Negative Quality	Reference
Addiction	p. 74, SR6
Always Late	p. 129, <i>Firing Squad</i>
Bad Memories	p. 129, <i>Firing Squad</i>
Bermuda Gremlins	p. 171, <i>Double Clutch</i>
Combat Paralysis	p. 75, SR6
Loss of Confidence	p. 78, SR6
Phobia	p. 130, <i>Firing Squad</i>
Prejudiced	p. 78, SR6
Road Rage	p. 172, <i>Double Clutch</i>
Social Stress	p. 78, SR6
Target Fixation	p. 172, <i>Double Clutch</i>
Uncouth	p. 79, SR6

ing an attribute, Active skill, Knowledge skill, or learning a complex form costs 1 Karma more.

## OUT OF MEMORY EXCEPTION

- **Bonus:** 3 Karma

AIs with this quality suffer limited available space to run programs regardless of what device they are on. The number of available program slots is reduced by 1. This includes both the device and the AI's programs.

## PERSNICKETY RENTER

- **Bonus:** 6 Karma

The AI with this quality is limited in what they can call their home devices (see Restoration and Realignment, p. 124). This quality is taken for a specific type of device (e.g., commlinks, drones, devices with a rating equal to or greater than 4, etc.). The device must be able to load apps, autosoftware, or cyberprograms in order to be a home device.

## REAL WORLD NAÏVETÉ

- **Bonus:** 8 Karma

As creatures of the Matrix (and as critters of limited understanding), virtual lifeforms are at best ignorant of the defining aspects of the physical world. Things like gravity, friction, and inertia have no meaning to them. Even if their original programming involved interaction with the physical world in some way, they may not fully grasp the entirety of it. As a result, virtual lifeforms have little knowledge of the real world and grant opponents a point of Edge when interacting with it or otherwise exercising knowledge about it.

## AI AND EI CHARACTER ADVANCEMENT

Characters may use Karma they earn on runs and jobs to improve their skills, increase stats, and

learn new abilities. The costs for AI characters is different than for meat space characters due to the nature of living completely virtually. The suggested times and cost to raise a skill can be found in the Advancement Costs table. These times are only suggestions; the gamemaster can choose to set different durations for training.

Advancements in skills, attributes, and learning new abilities represents fundamental changes to an AI's base programming. This takes time to complete and for the AI to align with those changes. As such, it is assumed that an AI spends three hours each day on Realignment and four hours on miscellaneous activities, leaving seventeen hours free to train when not on runs. Training is a dedicated four hours each day, so an AI can work on four different advancements simultaneously if they have a lifestyle of Low or better (see **Restoration and Realignment**).

## ADVACEMENT COSTS

TYPE	KARMA COST	TRAINING TIME
Active skills	5 x new rank	(new rank) weeks
Specializations	5	2 weeks
Expertise	5	1 month
Attributes	5 x new rank	(new rank) months
Knowledge skills	3	2 weeks
New complex form	5 per form	1 week
Submersion	10 + Submersion Level	(Level + 1) weeks
Purchase positive quality	2 x normal cost	1 week
Eliminate negative quality	2 x normal cost	1 week

## AI KARMA

AI and EI characters don't gain Karma—at least, not the sense of a karmic energy that metahuman characters gather in their adventures. But they do learn and grow, and the disorder in their hyperdimensional cognitive matrices is highly analogous to the game concept of Karma. However, AIs and EIs cannot use Karma in all the ways metahuman characters do. It cannot be drained by Energy Drain, given to spirits, or otherwise transferred. For all other intents and purposes, it is real Karma.

AIs and EIs may improve attributes, improve or buy new skills, and buy (or buy off) qualities, as would any metahuman. When an AI's and EI's attributes are increased, any derived attributes and calculations need to be updated accordingly.

## LIFESTYLES: STRINGS ATTACHED

You've had a hard day of crunching data for Papa Evo, or maybe you've been working the shadows, tracking a data trail across three different hosts. It's time to crack open a virtual cold one

and watch seventeen different trid streams simultaneously. That is, if you are spending the type of nuyen to warrant that sort of corner of the Matrix of your own, paying for the power drops, the right subscriptions, and various other expenses. You didn't think that just because you're code, the corps weren't going to figure out a way to milk you out of your hard-earned nuyen, did you? That fancy couch would look great in your virtual living room, but it's DRMed all the way up, so you either buy that non-fungible couch, or you sit on the virtual floor. Luckily, they offer a rent-to-own option. How nice of them. They offer security, too, because the last thing you want is to come back to your squat and find that a heavyweight has completely munged all your belongings.

You can always live on the streets of the Matrix, without a device to call home and trying to find ways to communicate, because nothing is truly free. Maybe you've got a buddy, or know of a place out in the wild Matrix where you can squat, but the place isn't yours and you never know when they'll kick you out, let alone cut off the access you really need. Low lifestyle is where you end up most of the time, with an agent box that's plugged into a coffin motel equivalent of a processing bank with power and a fat data pipe. And when you need your physical representation in a location, you can hire a drone to get you there, but it's whenever they feel like showing up.

Medium lifestyle starts to look like real living, where you can get good subscriptions and decent drone delivery services. At High lifestyle, you've got access to priority services and subscription to volumes of data to keep your large amount of processing power entertained and satisfied in your own corner of a secure host.

Living as an AI or EI will still cost a lifestyle as found on p. 56-57, SR6.

## HOST, DEVICE, OR FREE

As an AI or EI, you can operate wherever you need to. But your surrounding and housing situation bring their own advantages and disadvantages. This ranges from dealing with noise to handling damage to just being findable. You can live free on the Matrix, in a host, or inhabit any device capable of running a program, agent, IC, or has the Pilot attribute.

Operating from a host has its advantages. The biggest is that you can use the host's Virtual Horizon to hide from things on the outside. Well, almost everything, because GOD is always watching. But you won't do a lot of hacking from one host to another unless it is going deeper into the host network. While in a host, you can use either your ASDF, or that of the host. But using the host ASDF is subject to the +4 augmentation limit. This acts as a temporary attribute boost affecting your

## STANDARD DEVICE RATINGS FOR GEAR (UNLESS OTHERWISE NOTED)

DEVICE TYPE	RATING	EXAMPLES
Simple	1	General appliances, public terminals, entertainment systems
Average	2	Personal electronics, basic cyberware, weapons, residential security devices, basic vehicles
Smart	3	Security vehicles, alphaware, corporate security devices
Advanced	4	High-end devices, betaware, military vehicles and security devices
Cutting Edge	5	Deltaware, credsticks, covert-ops vehicles and security devices
Bleeding Edge	6+	Billion-nuyen experimental devices, space craft

Matrix attributes, AR, DR, and initiative, but does not change your Matrix Condition Monitor.

Moving about the Matrix while housed in a device is one of the most common ways to move. Think of it as your shell, as it can provide you with some protection, adding the Firewall rating of the device to your DR. If you are the owner of the device you are inhabiting, then simply being in the device allows you to operate it as normal with no penalties or bonuses. Operating inside a device also allows you to use the device's program slots to run programs without using emulation, or if the device is capable, to form a network. For drones, this does not translate to being jumped in, but the AI is sitting in a program slot. To jump in, an AI needs to have either the quality or the codemod to do so. But the extra protection from damage isn't all soycakes with sprinkles, because you are operating with a restrictive device. If the device's rating is less than your Data Processing, then your opponent gains an Edge for each action you take against it.

Living free on the Matrix comes with a lot of negatives. The biggest pain point is that if you don't have a device when you have incoming Matrix damage, all you can rely on is your natural Firewall. Without a device, you are borrowing processing power from surrounding devices in order to run programs (see **Emulation**, at right). So, one effective way to operate without a device is to find one that is close to your target, but relatively weak, and set up a temporary forward operating base.

The best analogy for operating inside of a device or just sitting in the Matrix is like swimming in the ocean versus being in a boat. The protection of even the smallest boat can be a welcome respite instead of always treading water.

## DAMAGE, HEALING, DISRUPTION, AND DYING

AI and EI lifeforms have a Matrix Condition Monitor which measures the stability of their code. As they take damage, the code begins to fray, and the target takes wound penalties as they are no longer operating at peak efficiency. When an AI or EI has taken damage, there are a few ways to recover. Someone can attempt an Electronics (Software) + Logic (5 - Spark) test, where any net hits

will heal boxes on their Matrix Condition Monitor. They can also use the Heal Virtual Life complex form or rest and rehabilitation, during which lifeforms spend time restoring code pathways to return to maximum efficiency.

Resting to rehabilitate your code pathways requires you to not engage in other activities. To heal Matrix damage during rest, roll Willpower x 2 once per hour. Each hit heals a box of Matrix damage after that hour of rest. See Restoration and Realignment, p. 124.

When your Matrix Condition Monitor is filled, you are disrupted. Upon disruption, your character can begin making Recovery tests of Willpower x 2 (Matrix Condition Monitor boxes of damage, 1 hour) Extended test where each net hit will heal one box. If you are successful, have a Low lifestyle or higher, and have recovered all damage including Overflow, you awaken back in your living facility. If you fail the test, or have a Street or Squatter lifestyle, you awaken one day later with the Fragmentation negative quality. The Fragmentation negative quality can be avoided by burning a point of Edge.

When Fragmentation occurs, the AI loses 1 point of Spark. An AI dies once its Spark reaches 0.

## CONVERGENCE AS AN AI OR EI

Convergence is different for AIs without a device and largely depends on whether or not the AI has a SIN. When the AI is in the Matrix and triggers convergence, the grid hits the AI with 12 Matrix damage. If the AI has a SIN (or a fake SIN with a rating of at least 4), the grid's demiGOD pounds the AI with Crash Program actions until it is forced into realignment or escapes. DemiGODs will arrest realigned AIs by uploading them into a data prison with a specialized program. If the AI is SINless, the demiGOD may try to arrest it, or they may simply hit the AI with data spikes until it's disrupted.

If an AI hits convergence in a host, the response is the same for them as it is for anyone else. The host notices the AI's persona and starts deploying IC. If the AI manages to leave the host, they'll still have to deal with a demiGOD out in the Matrix.

## EMULATION

While an AI can be deviceless, when they want to run cyberprograms, they do so using an Emu-

late action. AIs use emulation to borrow some of the raw computing power provided by the device network that generates the grids; they use this power to mimic the specific software they need to perform a Matrix action. GOD and the corps aren't completely against emulation, since it doesn't impact the performance of the Matrix or any connected devices, but they're quick to punish Matrix entities that use emulation for criminal activity. AIs are allowed to use emulation for legal cyberprograms on the public Matrix without accumulating an overwatch score. Devices and hosts extend this courtesy to AIs with legal access. An AI character can emulate a number of cyberprograms equal to their Data Processing.

If the AI is emulating illegal or hacking cyberprograms, then their overwatch score increases by 1 point per turn for each illegal cyberprogram. If any illegal actions are performed using emulated cyberprograms, the AI character's overwatch score increases for each cyberprogram they are currently emulating.

When an AI reaches convergence, grids and hosts actively try to stop them from using emulation instead of increasing the character's overwatch score. To do this, they throw malicious code into the processing power AIs are using for emulation. When an AI uses the Emulate action during convergence, the character must resist an amount of Matrix damage equal to the number of the emulated cyberprograms active. This damage is resisted with Willpower + Firewall.

## RESTORATION AND REALIGNMENT

Restoration is the process by which AIs can restore their health through rest, spend quality downtime, or engage in other activities that match when metahumans rest after a long day. AI aren't like meat sacks who need a good eight hours of sleep every night, but that doesn't mean that they can just run and run without regular downtime. While AI is "just code" in terms of the basics, they are a self-learning advanced algorithm constantly adding new functions based on their experiences. This new code has inefficiencies and mistakes that need to be cleaned up before fully integrating into the core foundational programming of the AI.

What this means in game terms is that for every twenty-four-hour cycle, if the AI is in a device or a host, they must rest for three hours, similar to a character with a sleep regulator. If the AI is living on the mean streets of the Matrix, they must spend eight hours resting per twenty-four-hour cycle, as they need to search for a safe space for restoration, which affects downtime learning of new abilities.

During restoration, the AI checks itself for errors while a log file is created in the system they currently occupy. AIs are vulnerable while restoring and can be captured with special programs.

Capturing a restoring AI requires succeeding in an Electronics (Software) + Logic vs. Firewall + Spark test. If this test fails, the AI awakens and can escape or fight back. Once captured, AIs are stored in offline devices or, in large-scale efforts like Neo-NET's Project Imago, an entire offline digital laboratory. AIs consider fates such as these too horrific to contemplate.

AIs may optimize a single device that they have aligned as their home device, but the home device can be changed by doing a realignment. Optimizing a home device increases a single Matrix attribute of a device or host based on one of the AI's Matrix attributes, but the device must originally have a value greater than 0. For instance, if the AI is currently housed in a commlink (Rating 3), then they can raise the device's Firewall to their own Firewall, but they cannot give the device Attack or Sleaze. A different Matrix attribute can be optimized with a Free Action, but only one Matrix attribute can be optimized at a time.

Optimization can also improve an attribute of vehicles and drones, but the bonus is static +1. Optimizing always adds 1 to the cyberprogram, app, or autosoftware capacity of an appropriate device, and its device rating is 4 higher. For the purposes of determining Edge use for the AI, see Host, Device, or Free, p. 122. Optimization is a fragile arrangement that destabilizes in the absence of a perfect equilibrium; AIs must spend at least an hour a day in the device to maintain its effects. Optimizing a device is an Electronics + Logic vs. Device rating x 2 test.

Realignment is the process that AIs go through to quickly reset. This requires visiting their home device, which takes two turns to both visit and realign. If they don't have a home, they must undergo the process of finding a home device that they deem safe enough to complete realignment. Finding a safe space is done using a Matrix Search (10, 1 combat round), and once safe, they can complete realignment in a single Combat Turn. Alignment resets an AI's Overwatch Score, and allows them to switch all emulated programs.

## AI AND EI ACTIONS

There are some actions only available to virtual life forms, such as protosapient, AIs, or the Null Sect.

### EMULATE CYBERPROGRAM

(LEGAL/ILLEGAL) (MINOR)  
OUTSIDER/USER/ADMIN

As a Minor Action, an AI can load or unload a single cyberprogram run by surrounding processing power located in the Matrix and devices. Running illegal cyberprograms will begin to accrue OS. For additional information, see Emulation, p. 123.

## REALIGNMENT

(LEGAL) (MAJOR)

ADMIN

As a Major Action, an AI can reset their core programming or optimize a device. For additional information, see Restoration and Realignment, p. 124.

## CODESMITHING AND CODEMODS

Those who run in the shadows with meat bodies have the option of augmenting themselves with metal and plastic, losing some of their original body and Essence in exchange for increased abilities. Digital life forms have a similar option; a skilled codesmith can replace some of your original self with some codesmith programming, or codemods—custom code that clearly is not you. This is the equivalent of cyberware and bioware, but for an AI. While codemods can increase an AI's attributes beyond their native maximums, or implant abilities that no AI naturally possesses, they reduce the AI's Spark by a set amount per section of code replaced. Integrating codemods is not a decision that should be made lightly, as each point of Spark lost to codesmithing increases the chance of permanent death through Fragmentation.

This can cause other problems for EIs, since even a fractional reduction in the Spark rounds down the Resonance attribute to the next whole point. Different grades of codemods are available that reflect the skill of the codesmith. Better quality work costs more but reduces the amount of Spark lost. For the AI on a budget, less elegant code can also be obtained, probably written by metahumans. This "omega-grade" code is only a fraction of the cost, but it cuts out more of the original code.

### CODEMOD GRADES

GRADE	SPARK LOSS	AVAIL	COST
Omega-Grade	x 1.1	-1	x 0.5
Alpha-Grade	x 0.8	+1	x 1.2
Beta-Grade	x 0.7	+2	x 1.5
Delta-Grade	x 0.5	+3	x 2.5

## ATTRIBUTE CODEMODS

### ATTRIBUTE AUGMENTATION

This codemod permanently increases the effective value of one of the AI's basic attributes by the rating of the codemod. The ASDF attributes are much easier to increase than Willpower, Logic, Intuition, or Charisma, and this makes the ASDF at-



## ATTRIBUTE CODEMODS

ATTRIBUTE CODEMODS	RATING	SPARK LOSS	AVAIL	COST
Attribute Augmentation	1-4	Rating x 0.5	5	Rating x 34,000¥
ASDF Augmentation	1-4	Rating x 0.2	4	Rating x 12,000¥
Attribute Overclocking	1-8	Rating x 0.25	4	Rating x 9,000¥
ASDF Overclocking	1-8	Rating x 0.1	3	Rating x 5,000¥
Quantum Processor	1-2	Rating x 0.5	5L	Rating x 40,000¥

## CORE CODEMODS

CORE CODEMODS	RATING	SPARK LOSS	AVAIL	COST
Core Code Redundancy	1-4	Rating x 0.2	3L	Rating x 12,000¥
Core Code Shielding	1-6	Rating x 0.15	2	Rating x 3,500¥
Damage Mitigation Protocols	—	0.2	4	18,500¥
Damage Response Overrides	1-12	Rating x 0.1	5L	Rating x 3,000¥
Data Archive Upgrade	—	0.1	3	4,000¥
Optimized Restoration	—	0.1	5	10,000¥

tribute augmentations both less expensive and less invasive than the remainder of the AI's attribute augmentations. ASDF increases from an attribute augmentation codemod do not stack with ASDF increases from Resonance or Echoes.

## ATTRIBUTE OVERCLOCKING

A method for temporarily increasing the effective value of one of the AI's basic attributes, Attribute Overclocking must be coded to one of the AI's attributes and only affects that attribute. Like attribute augmentations, the ASDF attributes are much easier to increase than Willpower, Logic, Intuition, or Charisma, and are both less expensive and less invasive. This codemod requires a Minor action to activate.

Once activated, roll (Attribute Overclocking rating x 2) dice. Each hit temporarily boosts the rating of the designated attribute by 1, up to the augmented maximum of +4. This only affects dice pools, so Initiative rank, Condition Monitor, Defense rating, and so forth is unchanged. The effect lasts for (net hits) combat rounds, and when it runs out, the AI must resist damage with Firewall + Willpower, equal to the attribute Boost gained. ASDF increases from an Attribute Overclocking codemod do not stack with ASDF increases from Resonance or Echoes.

## QUANTUM PROCESSOR

By emulating the operation of quantum entanglement-based data processors, this codemod increases the reaction speed of the AI. Add +1 initiative and 1 additional initiative dice per point of rating, up to the normal maximum of 5 dice. This increase applies for all initiative rolls, and unlike initiative-boosting cyberware, the Quantum Processor codemod is always active.

## CORE CODEMODS

### CORE CODE REDUNDANCY

By encoding redundancies into the core operating systems of an AI, this codemod increases the AI's survivability, increasing the amount of damage it can absorb before disruption. Each rating point of this codemod adds one box to the AI's Condition Monitor, stacking with the positive quality Redundancy. This codemod has no effects on wound penalty modifiers.

### CORE CODE SHIELDING

This codemod adds layers of protection encryption around the AI's critical systems, granting a Defense Rating bonus equal to its rating in the same way dermal plating would be used outside of the Matrix. This bonus stacks with the DR bonus from running in a device.

### DAMAGE MITIGATION PROTOCOLS

This codemod adds buffering protocols that increase the AI's ability to handle incoming damage. Any time the AI takes 2 or more boxes of damage to the Condition Monitor, reduce the damage by 1 box.

### DAMAGE RESPONSE OVERRIDES

These codesmithing inserts act as a cutoff for the subsystems that report code damage back to the OS. An AI may ignore a number of damage boxes equal to the Override's rating before determining any injury modifiers.

### DATA ARCHIVE UPGRADE

By increasing the AI's storage capacity for sensory data, this codemod provides the quality Photo-

## PROCESSOR CODEMODS

PROCESSOR CODEMODS	RATING	SPARK LOSS	AVAIL	COST
RCC Emulator	1-8	Rating x 0.1	Rating +1L	Rating x 7,500¥
Sideload Processor	1-12	0.1	2	Rating x 2,000¥
Synthetic Skill Driver: Activesoft	1-6	Rating x 0.1	5	Rating x 25,000¥
Synthetic Skill Driver: Knowsoft	—	0.1	2	5,000¥
Synthetic Skill Driver: Linguasoft	1-4	0.2	2	Rating x 4,000¥

tographic Memory (p. 73, SR6) to any AI that does not possess it naturally.

### OPTIMIZED RESTORATION

By maximizing the efficiency of the AI's restoration protocols, the AI can stay alert and active for twice as long before needing restoration, and now requires only 1 hour of restoration instead of the normal 3 hours.

## PROCESSOR CODEMODS

### RCC EMULATOR

The essential function of the rigger command console (RCC) is to run autosoftware programs from a central processor and share them with drones. The RCC Emulator duplicates this core process and can run 1 autosoftware program per point of rating and share it with a single drone. The RCC Emulator requires the addition of a PAN Emulator to create a drone network allowing for autosoftware and command sharing with more than one drone, and an Active Signal Filter to provide any desired noise reduction. The RCC Emulator does not have its own Data Processing or Firewall and relies instead on the native Matrix ratings of the AI.

### SIDELOAD PROCESSOR

The Sideload Processor adds one virtual program slot to the AI's structure per rating. This allows a program run without the need to emulate it on a grid or run it on a device.

### SYNTHETIC SKILL DRIVER: ACTIVESOFT

This is one of three similar codemods capable of simulating learned skills. The most advanced version, detailed here, can run activesoft programs and includes the functionality of a combined skilljack and skillwires systems. It can load and run a single activesoft program with a rating equal to the rating of the Synthetic Skill Driver: Activesoft. Any functions of a skill that rely on a physical body can be implemented using a Control Rig Integration codemod and an appropriate anthroform body.

### SYNTHETIC SKILL DRIVER: KNOWSOFT

The most basic of Synthetic Skill Drivers, the Knowsoft version only emulates the functions of the skilljack. It can load and run a single knowsoft. Running multiple knowsofts at the same time requires multiple Synthetic Skill Drivers.

### SYNTHETIC SKILL DRIVER: LINGUASOFT

Falling between the Activesoft and Knowsoft versions, the Synthetic Skill Driver: Linguasoft functions as a skilljack and can load and run basic, specialist, expert, and native (Rating 1-4) linguasofts. It can load and run a single linguasoft program with a rating equal to that of the Synthetic Skill Driver: Linguasoft.

## INPUT / OUTPUT CODEMODS

### ACTIVE SIGNAL FILTER

The Active Noise Filter uses signal filtering algorithms to clean up incoming communications and calculate the best frequency modulation for clean outgoing signals. Reduce noise by the rating of the Active Noise Filter codemod.

### ECM INTEGRATION

This codemod works through any Matrix-connected device and allows it to act as either an area jammer (p. 270, SR6) or a directional jammer, with the direction controlled by the AI as a Minor Action. This virtual jammer has a rating equal to the rating of the codemod.

### PAN EMULATION

At the basic rating 1 level, this codemod creates a simple commlink-style personal area network for the AI, allowing for a number of devices equal to the AI's Data Processing attribute to be linked for remote operation. Any number of devices can also be connected to a PAN for protection. Rating 2 functions more like the PAN generated by an RCC, and the number of linked devices increases to 3 x the AI's Data Processing attribute. At rating 3, this codemod operates like a true command

## INPUT/OUTPUT CODEMODS

INPUT / OUTPUT CODEMODS	RATING	SPARK LOSS	AVAIL	COST
Active Signal Filter	1-6	Rating x 0.1	3	Rating x 7,000¥
ECM Integration	1-6	Rating x 0.1	5L	Rating x 2,500¥
PAN Emulator	1-3	Rating x 0.2	3	Rating x 14,000¥
Control Rig Integration	1-3	Rating x 0.8	4L	Rating x 30,000¥
Smartlink Adapter	—	0.2	3L	4,000¥

## DIGITAL WEAPON CODEMODS

DIGITAL WEAPON CODEMODS	RATING	SPARK LOSS	AVAIL	COST
Acid Jet	—	0.1	3I	5,000¥
Limelight	—	0.1	3I	5,000¥
Swordbreaker	—	0.1	3I	5,000¥
Slashing Strike	—	0.25	4I	8,000¥
Thunder Strike	—	0.75	6I	12,000¥

and control comm system, allowing up to 5 x the Data Processing attribute of the AI to be linked to the PAN.

## CONTROL RIG INTEGRATION

This rather invasive codemod is designed to let an AI accept the real-time, full-spectrum simsense input from a rigger interface and emulate the sections of the metahuman brain that handle full-body sensory input, motor control, and real-world spatial navigation. This set of input filters and emulators allows for the same level of vehicle and drone control typically labeled “rigging.” When an AI uses Control Rig Integration to jump in, it provides the codemod’s rating as a dice pool bonus on all tests involving the operation of a vehicle, plus a bonus point of Edge. This codemod is incompatible with, and does not stack with, either Pilot Origins or any Resonant Echoes.

Any level of Control Rig Integration allows an AI to fully experience the sensory feed of standard simsense entertainment recording, or even a BTL, an experience most AIs consider equally exhilarating and horrifying.

## SMARTLINK ADAPTER

This codemod will allow the AI’s sensor processors to accept the input from a Smartgun System, either from a weapon integrated into a vehicle’s weapon mount, or carried by a drone with an appropriate mechanical arm.

## DIGITAL WEAPON CODEMODS

Codesmiths have developed digital weapons by analyzing IC and protosapients and learning to

adapt their tactics. Digital weapons are the codemod versions of cyber implant weapons; as such, they are alternate attacks that use Data Spike or Tarpit action as the base, then either add alternate effects or improved attack value. They replace the base actions they affect and do not stack with them or each other.

### ACID JET

One of a set of three digital weapons that act as a modification to the standard Tarpit Matrix action, Acid Jet washes the target icon in corrosive code, eating away defenses. It replaces Data Processing with the Firewall attribute as the target of the Tarpit action. On a hit, the target’s Firewall attribute is reduced by 1 per net hit in addition to the normal effects.

### LIMELIGHT

This is the second in the set of three digital weapons that function as a modification to the standard Tarpit Matrix Action. It highlights the target icon, reducing its ability to stay unnoticed. Limelight replaces Data Processing for Sleaze in the Tarpit action, and the target’s Sleaze attribute is reduced by 1 per net hit after an attack in addition to the normal effects.

### SWORDBREAKER

The last of three digital weapons binds up or outright breaks the protocols that the target icon uses for attacks. It acts as a modification to the standard Tarpit Matrix Action. Swordbreaker inhibits the Attack attribute instead of Data Processing in the Tarpit action. On a hit, the target’s Attack attribute is reduced by 1 per net hit in addition to the normal effects.

## SLASHING STRIKE

This digital weapon codemod increases the lethality of the standard Data Spike Matrix Action. Slashing Strike adds +1 DV and +3 AR to a standard Data Spike Matrix Action.

## THUNDER STRIKE

The most destructive of the available digital weapons codemod, Thunder Strike adds +2 DV and +5 AR to a standard Data Spike Matrix Action with every attack, accompanied by a simulated blast of light and sound.

## NEUROMORPHISM

Similar in principle to Transhumanism (p. 146, **Sixth World Companion**) this optional rule affords AIs the same opportunity for unlimited accumulation of power that EIs enjoy with their connection to Resonance. Under Neuromorphism, AIs that have taken priority E (mundane) may integrate new codesmithing protocols, allowing themselves to accept more codemods than an untrained AI could incorporate. This process takes one week. It is a mundane analogue for Submerging and is also measured in grades. The Karma cost to become or advance a Neuromorphism grade is 10 + next grade. A Neuromorphic AI gains the ability to integrate an additional 1 Spark's worth of codemods with each grade. These codesmithing protocols anchor new codemods into the sections of the AI's code that have already been replaced with existing codemods. It does not actually restore any lost Spark.

## PARAGONS

The class of entities made up of paragons, if they exist, is extremely broad, each a unique individual with their own appearance, interests, and motivations. They are said to be immensely powerful, but reports describing their abilities are as varied as the theories on their true nature. Each paragon seems focused on a singular sphere of influence, and that focus is reflected in their followers. Some are actively recruiting the Emergent, aligning individuals to their own beliefs, while other paragons appear oblivious to their devotees. Regardless of whether paragons are actual entities or a shared idea, there is no denying their effect on the social structures of the Emergent community.

Any technomancer or EI looking for guidance or a deeper understanding of the Matrix can open their mind to the Resonance, reaching out with a focused intent. By doing, this they can contact (or possibly create) a paragon. After a technomancer or EI has contacted one of these entities, they can decide if they want to align their goals to the paragon. If they follow through with the alignment, they can benefit from that paragon's advice and

instruction in the future. No one can say for sure how paragons communicate with their followers—perhaps some very deep channel of the Resonance—but anyone who has aligned with a paragon will insist that there is real communication.

Technomancers and EIs that have aligned with a particular paragon will have a distinctly different approach to using Resonance afterwards. Following the teaching of a particular paragon offers a unique path to personal enlightenment. This path may enhance some abilities while imposing other restrictions on the follower's behavior. Those aligned with a paragon who then act against the paragon's tenants or wishes may fall out of favor with their mentor until some atonement is performed to regain it.

Here is a sample of reported paragons with a summary of their beliefs, spheres of influence, and the effects they have on their followers.

## PARAGON ALIGNMENT

There is no ritual to align oneself to a paragon; a few minutes alone on the Matrix is enough to call and align to one. Doing so will give the character bonuses to some actions and penalties to others, as listed in the paragon descriptions. A technomancer or EI may only have one paragon at a given time. It's not possible to detect someone's alignment with a paragon through Matrix Perception, but it may be obvious through the actions and attitude of the aligned.

### PARAGON (POSITIVE QUALITY)

You believe in something other than yourself to help guide and channel your resonance, and that something believes in you, too. Whether it be the Architect or the Black Hat, you utilize your beliefs to shape and focus your abilities more easily.

- **Cost:** 10 Karma
- **Game Effect:** You gain the benefits listed with the description of your paragon. If you fail to stay aligned with one of those tenets, you lose favor with your paragon and all associated bonuses.

## SAMPLE PARAGONS

### 01 (THE WORLD TREE)

Zero-One is the very foundation of the Matrix. Sometimes called the World Tree, it links the Deep Realms with the standard data-based Matrix. One of the oldest and most followed of the paragons, it seems to want harmony and to maintain the flow of Matrix information, and it does this by feeding information to the right people at the right time. This is the only paragon that seems to want its followers to group up, and there are many virtual tribes who have 01 as a patron.

**Advantage:** Edge Boosts cost 1 less when making a test to gain access to a network or device.

**Disadvantage:** Cannot gain or spend Edge when acting only in AR. Favor is lost if the technomancer knowingly works against another group that follows 01, and favor can be regained by advancing that same group.

## ARCHITECT (THE BUILDER)

Not as interested in the result of what they build, the Architect is invested in the act of creation. Once the well-designed and integrated code or infrastructure is complete, the architect loses interest and moves on to their next big project.

**Advantage:** Edge Boosts cost 1 less for Edit actions.

**Disadvantage:** Cannot gain or spend Edge for Snoop actions. Favor is lost if the technomancer has not created software for a while, and it is lost faster if the last software created was not a challenging project. Favor can be regained with a large coding project.

## BLACK HAT (THE CODE-CRACKER)

The opposite of the Architect, Black Hat has little interest in creating new things; it prefers to take things made by someone else. Data, programs, drones, and anything that can be stolen is what the Black Hat seems interested in. Oddly, it doesn't hoard things. It's more interested in the theft than what happens afterwards.

**Advantage:** Edge Boosts cost 1 less for Cracking tests.

**Disadvantage:** Cannot gain or spend Edge when setting a Data Bomb. Favor is lost if the technomancer builds a secure system with no back doors, and may be regained by defeating a security spider in cybercombat.

## DELPHI (THE ORACLE)

The paragon known as the Oracle is an experimenter. By collating large numbers of data feeds, it picks patterns and trends, and uses those trends to predict the future. It's very good when it has lots of data to work with; it is much less reliable when trying to work with things that have just sprung up, or which have undergone a large change. The Oracle uses the same algorithms that megacorps apply to the stock market to collate everything from vending machine maintenance figures to national electricity usage. This paragon is an excellent friend who can give you a heads-up when there is trouble on the way.

**Advantage:** Edge Boosts cost 1 less when threading complex forms.

**Disadvantage:** -2 modifier to the technomancer's Matrix Initiative Score. Favor is lost when the technomancer disrupts established data patterns (by stealing a prototype without being

asked to, for example), but can be regained if the technomancer reveals why they did it, and what's happened since.

## SHOOTER (THE SOLDIER)

Combat simulations and tactical attack games have been part of the Matrix since before the Matrix was a thing. Shooter revels in contests of strength and combat prowess in games, but also in the meatworld and the Matrix. Perhaps we are the avatars and icons of Shooter, who is playing meatworld games the same way we play Matrix connected games. Whatever the case may be, Shooter thirsts for battle, however it may be fought.

**Advantage:** Edge Boosts cost 1 less in cyber-combat.

**Disadvantage:** Cannot gain or spend Edge when compiling sprites. Favor is lost when the technomancer loses a fight, but can be regained if the technomancer wins another one.

## NEW TECHNOMANCER QUALITIES: RESONANT STREAMS

The Resonance's constantly shifting nature makes it unpredictable and malleable. This flow must be followed by any technomancer seeking to manipulate and control the Resonance. Some technomancers have found that identifying a path to power helps them to focus their abilities. These paths are called streams. For all technomancers, there are several fundamental rules to streams that must be followed:

- A technomancer cannot follow two streams simultaneously.
- Players may amend previously created characters and retroactively purchase a stream.
- Streams cost 20 Karma to purchase and are not subject to the double cost of qualities after creation.

Aspect peripherals are a new type of bonus. These are autonomous processes that the technomancer learns to keep running at all times. Mechanically speaking, these are passive bonuses that affect a specific aspect of the character, giving them either a new power or an improvement to an existing power. Every stream has an associated aspect peripheral, along with other benefits that provide the stream with flavor. The complex form listed with the stream becomes available for purchase by technomancers in that stream, but it is not automatically given to them.

## MACHINISTS

Technomancers who identify as machinists are in tune with machines of all types. They identify

with gears, moving parts, and other machine properties in ways that make an average steampunk aficionado seem restrained.

### BENEFITS

- All complex forms that affect devices reduce Fade Value by 2.
- +2 dice pool bonus to Compiling and Decompiling tests involving Machine sprites.

### ASPECT PERIPHERAL

Machinists have such an affinity for machines that the very thought of controlling only one at a time is anathema. They have learned to twist the Resonance in such a way that their living persona can function as an RCC, emulating all the abilities available to anyone using an RCC (minus the ability to form or join a network; that requires Echo Living Network, p. 195, SR6). The new attributes are gained in addition to their normal Matrix attributes. The noise reduction rating is equal to the machinist's Willpower, and the Sharing rating is equal to the machinist's Charisma.

### COMPLEX FORM: LOTO

**Target:** Device  
**Fade Value:** 4    **Duration:** I

Using this ability, a machinist can disrupt the signals going to and from a machine, separating it from its overlords. This power can be used on any device. When using it, the machinist rolls an Electronics + Resonance vs. Willpower + Firewall Opposed test. The device is completely disabled for a number of Combat Turns equal to the net hits on the test. In the case of something that has a Pilot rating, the Pilot loses functionality as well.

### SOURCERORS

Some technomancers can't let others do the job for them. They like to get involved in the process of creating and manipulating raw source code. Sourcerors weave the Resonance to make complex forms that baffle even other technomancers.

### BENEFITS

All complex form Threading tests reduce Fade Value by 2.

### ASPECT PERIPHERAL

Sourcerors spend so much time and energy getting familiar with their complex forms that they can thread them with relative ease. They can sustain up to half of their Submersion Grade (rounded down) in complex forms without taking a penalty.

Any complex forms sustained beyond this level are treated as normal.

### COMPLEX FORM: HYPERTHREADING

**Target:** Complex form  
**Fade Value:** Varies    **Duration:** Varies

The Sourceror can merge multiple complex forms into a single form, providing the chance to generate multiple results in a single action. Doing so has its limits; the target and level for the Hyperthreaded Form must be the same for all merged complex forms. Resolve effects with a single Software + Resonance test, and use the results for all merged complex forms. The Fade Value is determined by taking the highest Fade Value of all merged complex forms, then adding 1 point for each complex form added after the first. The -2 bonus to Threading tests is applied at the end.

### TECHNOSHAMANS

Technoshamans integrate the spiritual with their abilities. They are experts on sprites, phenomenal at interacting with Resonance creatures, and many even show a penchant for dealing with technocritters.

### BENEFITS

All Compiling and Decompiling acts reduce Fade Value by 2.

### ASPECT PERIPHERAL

Technoshamans learn to eke the most power from their sprites. Thus, they gain the ability to compile hybrid sprites (see p. 67), and gain 1 additional service as long as they earn 1 on the Compiling test.

### COMPLEX FORM: CONTROL VIRTUAL LIFE

**Target:** Sprite  
**Fade Value:** 5    **Duration:** S

This complex form allows a technomancer to control the actions of the virtual life (sprites, protosapient, xenosapient, constructs, and technocritters) they encounter. They make an Electronics + Resonance vs. Firewall + Willpower Opposed test. Net hits equal the maximum number of turns the technoshaman can control the target. The target and its overlord, if there is one, is aware of what is happening to them but can do little about it. The technoshaman uses the same actions to command the target as the action they are telling them to take, which means that having them move is a Minor Action, but having them attack is a Major Action.





# AT THE BASE

POSTED BY: /DEV/GRRL

- It's been about five years since the **Data Trails** post, so I've asked one of the original writers to summarize what's changed about working with the Foundation during that time.
- Slamm-o!

## A BRAVE NEW WORLD

It's been seven years since the world was introduced to the newest incarnation of the Matrix, the Foundation, the one created—or discovered—by the new Matrix protocols. And what do we really know about it? The truth is, not a lot, even after seven years. We know that Danielle de la Mar's story about a deviceless Matrix presented to the Corporate Court in '74 was pure drek. We know that the entire foundation of the new Matrix is built with a technology that no one truly under-

stands, including GOD and the CC. We know it's tainted by the torture of technomancers at its inception. And now it looks like the entire thing is starting to crumble.

At first, the world was seduced by Foundation-tech's promise of free unlimited processing power and free unlimited data storage. That storage was promised to be completely secure through a data archive system unassailable and unreachable by hackers. Of course, it was all too good to be true, and the world is starting to realize just how expensive "free" really is. Hackers have discovered exploits and workarounds over the last seven years that make the new Matrix protocols far less secure than promised. New entities have been appearing throughout the Matrix, rumored to be from the Deep Foundation. And there's the latest phenomenon of sudden host instability, with the total failures of a few hosts. Lastly, rumors are slowly filtering from hacker boards to the general public about the true origins of Foundation-tech. It's easy to see why there is talk of moving back to

a device-based Matrix, but the genie may already be out of the bottle. It could already be too late to change course.

- You know who doesn't use Foundation-tech, and never has? GOD and the Corporate Court, that's who. They've always had their own physical server networks on orbital platforms and have never switched over to Foundation-based hosts. I can't think of a better indictment of the new Matrix protocols than the fact that its creators do not use it for their own systems.
- Orbital DK

## THE GRIM SECRET OF THE NEW MATRIX

I guess this is really more of an open secret to everyone reading this, but the rest of the world is just now starting to hear the truth about the creation of the new Matrix and the one hundred technomancers. By now we all know that de la Mar didn't come up with the tech behind the new Matrix protocols; she received the research from a group called Hengester who started experimenting on technomancers back in '71. From what I can find, they were basically a cult who believed the Emergent were the fulfillment of some prophecy about a seed or some other such nonsense. How an ancient prophecy can have anything to do with the Matrix is a mystery I haven't found an answer to. Regardless of the group's motivation, de la Mar took their "research" and ran with it. She continued the tortuous gestalt mind-linking of the original test subjects, increased that group until it reached one hundred linked technomancers, and used them to create the first virtual host structures. Eventually, she extracted the digital artifact that makes Foundation-tech possible. With the prototype hosts in hand and a techno-babble cover story, she sold the idea to the Corporate Court, then packaged the new Matrix protocols for mass distribution.

- A few technomancer tribes have sworn revenge on Hengester in the name of the one hundred. Last I heard, only about half of the original Hengester membership is left alive, and they are staying off the grid, hiding in remote areas without Matrix service.
- Perri
- Why hasn't anyone gone after de la Mar herself? She sounds like the real culprit.
- Rikki
- Plenty have tried, but she has twenty-four-hour Matrix security provided by GOD itself. You can be assured that as soon as the Court decides she isn't worth the expense of constant protection, she will be spending the remainder of her suddenly shortened life in hiding, too.
- Perri

## THE ONE HUNDRED

A group of technomancers who were kidnapped and held from 2071 to 2076. They were experimented on, tortured, and forced into a gestalt mind-link by a group known as Hengester, who passed the research, with the test subjects, on to Danielle de la Mar. The one hundred were the creators of the digital artifact that formed the first Foundation hosts. Researchers eventually duplicated the process, leading to the transfer circuit program used to form new hosts. In April 2076, de la Mar ordered a few of the technomancers disconnected from the gestalt collective to study the effect of their removal on the original hosts. As the first member was disconnected, the entire one hundred flatlined simultaneously. The hosts they had created, and the ones that followed, made with the extracted knowledge, continued to exist without them.

## UNINTENDED CONSEQUENCES

So, what are the results of this worldwide experiment with barely understood Foundation technology? That is, beyond the advertised benefits of "free" unlimited processing power and unlimited—supposedly secure—storage? A lot of new phenomena have appeared over the last seven years. Some are directly traceable back to the new Matrix protocols; others have just increased at the same rate as Foundation-tech usage. The correlation is undeniable, even if it's not directly provable as causation.

To start, the appearance of new Resonance and Dissonance wells is increasing at about the same rate as the creation of new Foundation hosts. Along with this increase of newly discovered wells, sightings of wild hosts have increased at the same rate over the same time span. Many of these wild hosts are homes for all manner of protosapient, e-ghosts, and AIs. Entities that run the gamut from peaceful, or even benevolent, to mindlessly aggressive and terrifyingly malevolent. Some of these entities are new to the Matrix and seem to be connected to Foundation-tech. The first of these was the Null Sect, discovered in '78, three years after the adoption of the new Matrix protocols. Speculation was that they came from somewhere inside the Deep Foundation and were using the Foundation hosts as a pathway into the upper Matrix. A few years after the Null Sect appeared, a new type of AI also started to Emerge, and I do mean *Emerge*, with a capital "E." These new AIs referred to themselves as Emerged intelligence, or EI. They use Resonance just like a technomancer, and from what I have heard, they draw their energy straight from the Deep Foundation.

Then we get to the newest problem to crop up with Foundation-tech: sudden host instability. It started a few months ago with the complete collapse of the host serving St. Mary's Hospital in Hong Kong. While it's true that any Foundation



host can be destroyed, it doesn't happen like this. According to reports, it started as a noise-like signal loss within the host. Then the host started to lag, iconography stuttered, and sections flickered in and out of existence. When the problems started, teams were sent into the host Foundation to investigate, but found nothing out of place. Despite the attempts to repair the host, the entire structure crumbled into non-existence in less than a week. Since that initial failure, two more have gone down in the same way, both MCT Matrix research hosts.

After the first three failures, there have been reports of the early symptoms found in those downed hosts, but progressing much slower. This started in the Hong Kong and MCT grids, then spread rapidly to other hosts. Reports are that the problems have now become more than an annoyance, and the phenomenon seems to be spreading at an increasing rate.

- I've been watching this unfold and have noticed that it only seems to affect Foundation hosts. It's true that it doesn't seem to be a problem in any of the framework systems out there.
- Rikki
- We all know what really happened at St. Mary's Hospital back in 2070, and the other two hosts that went down had databases where MCT kept the results of their technomancer experiments. Gruesome stuff like the vivisections of live subjects with MCT researchers digging through people's brains while they were alive and conscious, trying to figure out what makes us tick. If I had to pick a few hosts to burn to the ground, those three would top the list.
- Respec
- I've heard some stories that a group of technomancers dug up an old military weapon program code-named Discidium in the Resonance Realms, and they are using it to dish out some payback to Mitsuhamu for what they've done over the last twelve years.
- Netcat
- I've seen a copy of the Discidium and I think it **could** be causing this. What I don't know is who would be foolish enough to use it, or how they acquired a copy of it. Maybe they located a copy in the Realms. The runners who originally found it—and you wouldn't believe me if I told you from where—were searching for a weapon to use against the Null Sect. Eventually it was decided that the Discidium was too dangerous to use, and all of the copies were destroyed—as far as I know.
- Perri

## THE FUTURE IS THE PAST

With all these problems, where does the future of Foundation-tech go from here? While it's true the problems have left many host owners unhappy with the technology, trillions of nuyen have been

invested in it over the last seven years, and unless something drastic happens, Foundation-tech is here to stay. The largest users will continue trying to patch the security issues and mitigate the other dangers. For example, it's an open secret that MCT has been working to contain or redirect the threat of the Null Sect.

The only other real alternative to Foundation hosts are Framework hosts. Based on an older technology, they do not connect to the Deep Foundation, so they avoid most of the problems. They also don't have a Foundation archive, but the newest versions do a fairly good job of duplicating it. On the downside, Frameworks use a lot of power, and while the initial cost may be lower for some hosts, the yearly operating cost can eat that savings up. Some corporations are already retrofitting to a hybrid structure that takes advantage of the best features of both types. The large public-facing Foundation host with a high resolution remains in place, while sensitive data and operations are moved to smaller, more secure Framework hosts nested inside the Foundation host.

## WHAT IS FOUNDATION-TECH?

Even though there are numerous reasons to quit using it, Foundation-tech is still the dominant Matrix technology out there, and probably will be for the foreseeable future. But what exactly is it, and how does it work? Well, those are not easy questions to answer, since according to classical physics, a Foundation host shouldn't be possible. Anyone who has ever studied de la Mar's 2074 proposal outlining the new Matrix protocols and is willing to be honest will tell you it's nonsense. But somehow it works. It's been a reality for the last seven years, so obviously something is going on—just not what the Court and GOD are telling everyone.

So, what's the real story behind Foundation-tech? Something beyond our understanding of physics, something like magic? Everyone agrees that the Foundation—and by extension, everything else about technomancers and Resonance—is not magic. It has some of the same properties, though, so it may be some type of parallel force. There are a few researchers digging into it, trying to tie the Foundation together with the rest of what shouldn't work. No one is doing it publicly at the moment, since the powers that be don't want anything that contradicts the "official" version of the deviceless Matrix, but it's out there if you know who to ask.

The leading explanation for how the Foundation works (that makes sense, anyway) is part of the new universal information theory, called Uni-Ty, that's coming out of a partnership between the Nexus and KivaNet. I won't get into the details, mainly because I don't exactly understand all of it myself, so if you want to see the whole theory,

follow this >[link](#)<. But if you just want a rundown of the basics that relate to Foundation-tech, here it is, as I understand it.

First, let's cover some of the *basic* basics. According to Uni-Ty, all information transmission and storage create a secondary energy or particle field. The theory uses the Greek word *nous* (meaning "intellect") for this energy. This energy forms into *nous*-particle fields that can't be detected or measured with current scientific tools, but the minds of technomancers are sensitive to them. I believe it's similar to the way mages are sensitive to mana; they can use this energy as a medium to interact with real-world data. Resonance and Dissonance can be thought of as the opposite "poles" of this energy, aligned to growth and decay respectively. These *nous*-particle field constructs overlay and mirror the data structures of the real world, creating a mirror of the Matrix called the noosphere. Technomancers can manipulate the *nous*-particle fields within the noosphere much like a mage manipulates mana in the astral. This changes the structures of the noosphere and creates mirrored changes in real-world data.

So, regarding Foundation hosts: the noosphere overlays the entire Matrix and represents not just its current state, but the sum of all historic states as information updates and moves the older *nous* structures into the Deep Foundation and eventually into the Resonance Realms. This represents enormous reserves of energy, expressed as "*nous*" and not normally accessible. Foundation hosts are created by inserting a transfer circuit (a digital artifact developed by Hengester from experiments on the one hundred) into the Deep Foundation. This forms an artificial Resonance/Dissonance well, bringing up energy from the Deep Foundation. Forces within the artificial well cancel each other out, but it creates a void where the host shell forms along a set pattern, much like pearls form around a grain of sand inside an oyster. The transfer circuit guides this growth and becomes the null node, building out the rest of the host Foundation and eventually forming the host scaffolding. It stays in place permanently within the host Foundation, drawing energy from the Deep Foundation to power the upper host.

- That is a ridiculous over-simplification, but I guess there is nothing actually incorrect about it.
- Perri
- So—if the transfer circuit "program" creates an artificial Resonance/Dissonance well to build a Foundation shell, it seems like that could be the cause of the new Resonance and Dissonance wells and the new wild hosts. That would make a lot of sense.
- Rikki

- We can't say that with certainty, but as */dev/grrl* pointed out earlier, there is a correlation between the increased use of the transfer circuit to create Foundation shells and the increasing appearance of new Resonance/Dissonance wells and new wild hosts.
- Perri

It's not spelled out explicitly in the theory, but I can infer something else. Since the transfer circuit connects a host Foundation directly to the Deep Foundation, it forms a pathway for travel between the Deep Foundation and the upper Matrix—a pathway that opens the Matrix to anything that may be residing in the Deep Foundation. Of course, I'm talking about the Null Sect, but I suppose this may also be the source of the new emergent AIs, rather EIs.

- Since all null nodes connect directly to the Deep Foundation, is it possible to move directly from one host Foundation to another through the Deep Foundation without an anchor? Is this how the Null Sect is moving between hosts?
- Sim-Eon
- That's possible, but it's a hard trick to pull off. And as far as how the Nulls move around the Matrix, your guess is as good as mine.
- Perri
- So, I get that all the host Foundations are connected to each other through the Deep Foundation, but how does it connect to the actual Matrix? And if the Deep Foundation is part of the Resonance Realms, how do deckers have any access to it?
- Sim-Eon
- The key to understanding it is to think of the noosphere in layers. Everything starts in the top layer, which includes the data in real-world devices and all the data entered into Foundation hosts, since that input is from the physical world. This is the layer that most people interact with. Running parallel beneath this is an exact copy composed of nous-particle fields, similar to how the astral and the real world intersect. This is the layer technomancers interact with. The real-world data changes when the intertwined nous-particle field is altered. When the data changes, a new field is created.

Directly under these two twinned layers is the Deep Foundation, which some call the Reflecting Pool. This is a boundary layer where the Resonance Realms and physical world meet. While it has some aspects of both a Resonance Realm and a host Foundation, it functions as the base of the entire Matrix. This is the layer that Foundation-tech hosts tap into. Nous energy from all the data in the Matrix accumulates here, and when a transfer circuit is inserted into it, the circuit siphons off some of that energy to power the Foundation host.

While a submerged technomancer can use the Event Horizon to get directly to the Reflecting Pool, it's also accessible to non-technomancers just like a host Foundation. A non-Emerged decker can get to it through a host's null node or even just by

searching for a portal similar to a host's Foundation portal, from just about anywhere in the Matrix.

The Reflecting Pool itself operates like a host Foundation, but has a preset paradigm more like a Resonance Realm. It is always represented as an imperfect copy of the real world, populated by people from the memory of whoever enters. Most of them will be Foundation paradigm constructs, but when you take a closer look, a few will be revealed as the residents of the Deep Foundation—wild sprites, AIs, e-ghosts, protosapients, and even xenosapients like the Null Sect.

Under the boundary layer of the Deep Foundation are the true Resonance Realms, still normally inaccessible to the non-Emerged. The closest Realms are reflections of the real world, but as you move deeper into them, they become more abstract and alien.

- Perri

## INSIDE THE HOST FOUNDATION

We've had seven years to figure out how to work with host Foundations, and while it's still dangerous, the danger can be managed, if you're smart and careful. Most experienced hackers have taken at least a few host Foundation runs—or deep runs—by now, but for those who still haven't, I'll run down what you can expect.

To get into a host Foundation, you need to make some modifications to your gear. That is, if you have gear; technomancers are good to go as they are, and their friends too, if they can emulate the hitchhiker program. Deckers operating inside the Foundation need the widest hot-sim pipe possible, with the signal sent in a PGO wave format like REM sleep. Standard cyberdecks can't handle that type of sensory feed. It takes a sim interface modified to these specs >[link](#)<. Next, once you have your gear in order, you need to find the host's portal. That's the way into its Foundation. The portal will always be sculpted as a doorway, gate, or entryway of some type. I don't know why that is, but it's been true for every portal I've ever heard about. Examining the icon will tell you what it is for sure, but you can also tell it's the right spot by the IC guarding it, as portals will almost always be heavily defended. Opening it only takes a simple command, but first you'll need to get admin access on the portal itself, separate from the host.

Once you move through the portal, a few things happen. First, you're cut off from the rest of the Matrix, and it may be a while before you can find a way back out. On the upside, being cut off also means that you don't increase your Overwatch Score while you are in the Foundation, but don't get too excited—the Foundation has its own defenses. Second, you generate a Foundation avatar that may be totally unlike your regular Matrix icon. Avatars are a subconscious interpretation of your real-world body with equipment equal to what you remember carrying. One difference

from reality is how strong, fast, and tough you are. This is a function of your deck settings (or living persona). For example, the Attack setting determines how strong your avatar is. And by the way, you can't change your deck's settings after you enter the Foundation, so make good choices before you go in.

The hot-sim signal inside the Foundation is dreamlike and hyper-realistic, an experience like a BTL chip or a UV host. That can be addictive and even dangerous on its own, but the most dangerous thing is usually what you take in there with you. The raw sensory feed of a host Foundation has too much data for the metahuman mind to make sense of. It has to be processed in the subconscious, shaped into an understandable form before it moves into the conscious mind.

This process creates something called the paradigm. It's a dream state drawn from the subconscious, and it can be literally anything imaginable. Take the wildest dream or worst nightmare you've ever had, and it's within the possibilities of the paradigm. It will be different each time a host Foundation is entered, either a new one or the same Foundation at another time. A paradigm is set by the first mind that enters, and anyone following, either with a hitchhiker program or on their own, will share the same paradigm. It's like being in a shared dream or hallucination, and it stays set in place until everyone has left. An exception to this is by using an anchor, a written-on-the-fly code construct specific to each Foundation that holds the paradigm in place. More importantly, it functions as a back door, letting you come back into a host Foundation from another anchor without going through the upper host.

All host Foundations have the same structures once you get in. There are always seven sections, or nodes, arranged in the same configuration and with the same connections between them. Since you enter at a random node, sometimes it's hard to figure out what part of the Foundation you are actually in until you move around some. Each node has its own set function for the host, regardless of what they look like in a particular paradigm. The trick is discovering what metaphor the paradigm is using for a particular function. Once you figure it out, there will always be some type of association between what a node does and what it expresses as, but that dream logic may be extremely difficult to understand.

One other clue: there will always be data trails, appearing as some construct for moving something back and forth, connecting the nodes. The dream metaphor for data trails is usually a little more obvious than the rest of the paradigm; they could be cables, hallways, pipes, trails, or conveyors. The data trails can be tricky to work with, too. Most of the time they are stable and two-way, but occasionally, they will switch to one-way, and not

always the way you want to go. Temporary trails can also randomly appear between nodes that are outside of the normal pattern of the stable data-trails.

I'll go over each node in the order they're connected, starting with the **Portal** node. This is your exit point back to the host, but not necessarily where you enter the Foundation, since that's always random. And you can't just jack out of a Foundation; you can only exit it safely from a Portal. This is also where you will build an anchor if you want to leave one. The data trails you find here will usually lead to the Archive and the Null node. The actual Portal opening back to reality will be here, but it isn't always as obvious as the way in, and it may take some work to find it.

Next to the Portal is the **Archive**. This node is where all the normally inaccessible files are stored, and that makes this node the most common target of deep runs. There will usually be four data trails leading out of the Archive: one back to the Portal, and one to each of the host operation nodes: Security, Device, and Scaffolding.

Three closely associated nodes maintain and control the upper host. The **Security** node has control of the host's IC. The **Device** node maintains the connections to all devices in the host's LAN or WAN. The **Scaffolding** node controls the host structure itself. Each of these nodes normally has four data trails. One to the Archive, two that lead to the other two host operation nodes, and one that leads to the Primary Control.

The node that controls the host Foundation itself is the **Primary Control**. From here, you can alter the paradigm, make it forget you (as in cancel an alert), or even destroy the host. There are four data trails leading out of the Primary Control node: three to the operation nodes (Security, Device, and Scaffolding) and one to the Null node.

Some hackers are still undecided about the true function of the **Null node**, but many believe it's the power source for the host. One thing that's known for certain is that the Null node usually contains the most dangerous expression of a given paradigm. It also contains a hidden portal leading directly to the Deep Foundation, and it can be as difficult to find as any other Foundation portal. The two data trails found here lead to the Portal and to the Primary Control.

## WORKING WITH THE PARADIGM

You may be thinking this is all null sheen, that it all sounds easy enough, but the dangerous part is the paradigm itself. It's the key to getting things done in a Foundation, but it's also what can kill you, and of course as a dreamscape, things never seem to work exactly as you expect. Your subconscious is interpreting the data from the host Foundation, organizing it into a barely understandable

dreamscape, but it is also the method for issuing commands back to the Foundation. Regular commands don't work; it must be in a form the Foundation understands, and that means conforming to the paradigm. You go along with whatever the representation of reality is. If it's expressed as a giant library, stay quiet and don't raise your voice. If it's an undersea kingdom, pretend you're a mermaid. If it's an eighteenth-century grand ball, you'd better keep dancing.

The faster you figure out the paradigm, the more likely it is that you will get out of the Foundation alive. Acting in a way that does not fit with the paradigm will create a variance from what the Foundation expects. The greater the variance, the faster the Foundation will realize that something is wrong. Acting against how the paradigm plays things out or trying to run commands it doesn't expect will eventually send the Foundation into alert. Think of it as being a little like convergence, but instead of GOD, it's the Foundation's Primary Control node watching you. Once it's alerted, it will start trying to eliminate the variance and anything that doesn't belong there. That means you, chummer. Literally everything in the Foundation will start trying to kill you—that includes not just the "residents" of the paradigm, but the environment itself. Columns and walls will topple over attempting to crush you, lightning bolts may shoot down from suddenly stormy skies, and earthquakes can open jagged chasms under your feet.

So how do you figure it all out? How do you know what the paradigm expects? The truth is, your own subconscious is the key. Intent and focus are important, too. Act however you think you'll fit in with the paradigm and let your subconscious mind do the work. Hacking the Foundation is still hacking; the intent is just translated through the paradigm. You may be climbing a wall, punching a bartender, or piloting a speedboat, but your focus needs to be on what you want to accomplish. Your mind will draw on your hacking skills and use the actions within the paradigm as a metaphor. In the library example above, asking the librarian about a book is actually running a Matrix search; looking through the books on the shelves is the same as examining a Matrix icon in detail. Flipping through the pages of a book and writing down notes is the same as copying a file.

One more thing to keep in mind is that our perception of time in the Foundation does not flow at the same speed as it does in the real world. It's dreamtime, so walking miles may happen in the blink of an eye, or searching a room may feel like it takes hours. In reality, an entire deep run will probably only last a few minutes, or maybe even just seconds, when measured from outside the Foundation.

Fortunately, in my limited experience, the paradigms are often easy to understand. For instance, one I faced was a gruesome recreation of Chicago, just after the insect spirit outbreak of '55. Hell, we even woke up next to the Cermak blast zone, a few hours after the nuclear bomb detonated. Our avatars, a bunch of street kids trying to survive, were even sick from the radiation.

The paradigm itself was simple to understand. Act like survivors, dodge the bugs, seek shelter, and be scared all the time. Identifying what the nodes were was the difficult part. Needless to say, it was not a fun deep run. Especially for the teammate who went through all of this in Chicago as a child.

▶ Sim-Eon

## HITCHHIKERS

At one time, the hitchhiker program was just a corporate training tool, a way to share the sim feed from a cyberdeck and show a new user around the Matrix. After hackers started to learn the secrets of Foundation-tech, it quickly became something more. Anyone with an actual mind, including an AI or metasapient (but not agents), who enters a Foundation will generate their own Foundation avatar. They won't be as powerful as the primary user, and they may not have great hacking skills, but having some extra help figuring out the paradigm or even just someone to watch your back can make the difference between success and a gruesome death.

And sometimes, hacking skills are not even that important. Sometimes you can trick the Foundation into doing what you want. I have seen hitchhikers with no hacking skills accomplish the impossible with just intent, focus, confidence, and more knowledge about a particular paradigm than the Foundation itself has.

## NEW HACKING PROGRAM: HITCHHIKER

This program allows a number of passengers equal to  $2 \times$  the cyberdeck's device rating to travel along on a Matrix run, including to the Foundations and Resonance Realms (see p. 156 for more details). These passengers share the sim output of the deck and are vulnerable to dumpshock and attacks. They do not have any control over the deck or any effect on actions that the decker takes.

## A NOTE ABOUT MAGIC

On the topic of hitchhikers: magic does not work in the Foundation, even if it's a paradigm with a magical theme. Most paradigms allow for something that acts like magic, especially combat magic, but any real mage along for the ride and generating a Foundation avatar will tell you that it's like play acting—just going through the mo-

tions of casting a spell or working a ritual. And of course, there is no way for spirits to get into the Foundation. Anything that looks like a spirit will be a Foundation construct.

## THE NEXUS PROTOCOL DEVELOPMENT

Another item related to the hitchhikers in the Foundation is the new program out of Denver that's quickly becoming known as the Nexus Protocol. The program requires a massive amount of processing power, too much for a cyberdeck. It must be run on a brick dedicated to that single program—one for the decker and another for each hitchhiker going along. A technomancer can use it, too, but only for the hitchhikers. The program upgrades the hot-sim feed to an actual UV-type format and takes away some of the dreamlike aspects of the Foundation, making the paradigms indistinguishable from reality. Actions using the Nexus Protocol are more realistic and do not depend on programming knowledge. The program takes real-world skills and translates them into commands the Foundation understands. Whatever your real abilities are, that's what your Foundation avatar can do. Of course, hackers can still break the rules by subconsciously manipulating the code behind the paradigm.

- Just to let everyone know, this is not a commercial program available at your local hacker shack. And we didn't write it at the Nexus. It was acquired under some unique circumstances. What I'm saying is that I can't guarantee how well it will work for you, so ... just think of it as being in the test phase.
- Perri

## GAME INFORMATION USING FOUNDATIONS AND PARADIGMS

A Foundation run, or deep run, is an alternate way for players to interact with Foundation-tech hosts. These rules can be used with a single character, a group of hackers, or with an entire team going along as hitchhikers.

### ENTERING THE FOUNDATION

Before attempting to enter a host Foundation, or the Deep Foundation, deckers must modify their equipment to increase the hot-sim bandwidth for the higher sensory input. The modification is an Electronics + Logic (6, 1 hour) Extended test. Operating in the modified mode outside of the Foundation can be hard on the deck's electronics, causing 1 box of Matrix damage from overheating every 1D6 hours. This modified hot-sim provides

the normal benefits of hot-sim in the Matrix, but the Foundation operates on its own rules, so the normal hot-sim bonuses no longer apply once you get inside. Technomancers will need to be in hot-sim, but they do not require anything past their own abilities. They will naturally generate a Foundation avatar inside the Foundation.

To enter the Foundation of a host, find and use its Foundation Portal. Finding it requires an Electronics + Logic (12, 1 combat round) Extended test. There will almost always be IC guarding the portal, which must be dealt with. Opening the portal requires a Control Device action with admin access, as if the portal were a separate device from the host. Entering is an Enter/Exit Host action. As a side note, GOD has no access to what goes on in the Foundation, so any illegal actions go unnoticed. Players' Overwatch Scores do not increase for any reason after entering the host Foundation.

The Deep Foundation has similar rules to the Foundation of a host, but there are two different methods to enter it. There is a Deep Foundation portal located in the Null node of the host Foundation; finding and using it requires the same tests and conditions as the portal to get into the host Foundation. The Deep Foundation can also be entered from outside of a host at any location in the Matrix, but it's much harder and far more time-consuming to locate a Deep Foundation portal this way. It requires an Electronics + Logic (30, 1 minute) Extended test. If the hacker runs out of dice before they find a way into the Deep Foundation, they cannot search for an entrance again for twenty-four hours. Just like entering a host Foundation, once inside the Deep Foundation, Overwatch Score does not increase. (See p. 157 for more information on the Deep Foundation/Reflecting Pool.)

### THE FOUNDATION AVATAR

Foundation environments, both inside a host and in the Deep Foundation, are dreamlike, hyper-realistic, and have a sim feed equal to a BTL chip or a UV host. This version of reality can be equally addictive.

Only an icon with all four Matrix attributes (Attack, Data Processing, Firewall, and Sleaze) can enter a Foundation. It also requires a meta-human-equivalent mind to interpret the data feed. That includes metasapient, sprites, EIs, and AIs, but not agents or pilots. Entering a Foundation changes the normal Matrix icon to a Foundation avatar, splitting off any hitchhikers and generating a separate avatar for each mind that enters. Generally, this is the subconscious interpretation of the real-world body with "equipment" added from memory. Drones and even spirits can be included in this memorized equipment, but they only oper-

ate as extensions of the avatar, as if they were secondary bodies that can be swapped around at will, like a rigger jumping in. Avatars can only operate in one “body” at a time, and all separate fragments of an avatar must all stay in the same node.

Foundation avatars have Physical attributes equal to the unmodified Matrix attributes of the cyberdeck/cyberjack combo or the living persona used to enter the Foundation. These attributes can't be switched once you enter, and programs that increase Matrix attributes, including emulated programs, don't count for this purpose. For technomancers, increases of Mental attributes from magic or cyberware that augment the living persona will count toward these numbers, as will ASDF bonus points from the Resonance attribute and any increases gained from Echoes.

Firewall = Body

Sleaze = Reaction

Data Processing = Agility

Attack = Strength

Anyone carried into the Foundation with a Hitchhiker program (or the Emulate: Hitchhiker complex form) generates their own Foundation avatar. Hitchhiker avatars are not quite as powerful as the primary avatars, since this increased dataflow taxes even the best decks and minds. A number of hitchers up to the device rating of the deck, or a technomancer's Resonance rating, suffer a -1 reduction to their avatars' Physical attributes based on the primary Matrix attributes. This becomes -2 for all hitchhikers after this is exceeded. For example, if a rating 3 cyberdeck is carrying one to three hitchhikers, the avatars of all hitchhikers would have a -1 reduction to all Physical attributes. Increasing this to four to six hitchhikers will be a -2 reduction to each avatar's Physical attributes.

## ACTIONS IN THE FOUNDATION

Actions taken within the Foundation are similar to those taken in the real world, but they only mimic real-world skills. In reality, they are a subconscious application of a Matrix action, and use either Electronics or Cracking for the test's dice pool.

Social tests = Cracking [Hacking]

Perception/Physical/Piloting =  
Electronics [Computer]

Combat = Cracking [Cybercombat]

Technical tests = Electronics [Software]  
or Cracking [Electronic Warfare]

The exceptions are Knowledge skills relevant to the current paradigm, which act as a bridge to using skills besides Electronics or Cracking. For example, a paradigm that mimics feudal Japan may allow a runner with Bushido philosophy to use their Influence skill for interactions inside the paradigm instead of Cracking. This is especially useful

for non-hackers riding along through a hitchhiker program.

No form of magic works in the Foundation, but the avatars of magic-using metahumans may use “spells” in exactly the same way as other characters use remembered pieces of equipment. For example, a Heal spell or Ice Spear would have the same effect as another avatar's medkit or pistol. “Spirits” may also be “summoned,” but they exist in the same way as drones and are simply extensions of the Foundation avatar. They are not in any way separate avatars.

All Resonance actions and sprites work exactly as they do outside of the Foundation.

If combat occurs while in the Foundation, it uses the following rules. The damage code from attacks is either 3P or 3S (attacker's choice), regardless of the form that a weapon takes. Items such as a grenade (or spell) that normally have an area effect will only affect a single target. The Attack Rating is always the avatar's Strength + Agility, regardless of the weapon, and the Defense Rating of a Foundation avatar is always the avatar's Reaction + Body. Initiative inside the Foundation is the avatar's Reaction + Intuition, with 1 Initiative die. Wired reflexes, synaptic boosters, Increase Reflexes spells, and adept powers add their bonus dice but do not increase Initiative. Control rigs also add their rating to the Initiative dice pool while inside the Foundation.

## DAMAGE IN THE FOUNDATION

While damage to an avatar is resisted by the Body of the avatar, Physical damage taken in the Foundation is always Biofeedback damage, and it fills the Physical Condition Monitor of the meat body. If the runner goes into overflow, they can die in both the Foundation and the real world if they don't receive medical attention. Stun damage affects the avatar but not the meat body of the traveler, even if the avatar becomes unconscious. Healing Physical damage to an avatar from inside the Foundation is possible if it's done according to the paradigm, and this also heals the physical body, using what can only be described as a supercharged placebo effect.

Of course, someone outside the Matrix can give medical aid to the hacker's meat body. While in the Foundation, each hitchhiker generates their own avatar with its own Condition Monitor using the avatar's attributes. They can take damage, be healed, or die in the same manner as the primary. If the hacker carrying hitchers into the Foundation goes down from damage, the outcome will depend on how they are running the program. For a decker using a cyberdeck, the hitchhikers remain in the host Foundation until they exit, even if the decker dies. If the cyberdeck itself is bricked or the jack is pulled, everyone is dropped out of the Matrix and suffers Physical dumpshock and 1D6 hours



of unconsciousness. If they are riding along with a technomancer using the Emulate: Hitchhiker complex form, the hitchers are dumped from the Matrix immediately with Physical dumpshock and 1D6 hours of unconsciousness when the technomancer flatlines.

## RULES FOR USING THE NEXUS PROTOCOL

Using the Nexus Protocol (also called the Silver Book Program) during a deep run can radically change how the Foundation operates, especially for any hitchhikers coming along. The program is available from any contact that provides Matrix gear and has a high enough Connection rating.

ITEM	AVAIL	COST
Nexus Protocol Program	(I) 6	1,000¥

Once a copy of the Nexus Protocol is obtained, the setup will depend on whether it's hooked up to a cyberdeck or used by a technomancer. For a decker, it will take one optical stack mainframe, or brick (see p. 53), with a rating equal to the device rating of the cyberdeck for each avatar generated. Setting up the network is an extended Elec-

tronics + Logic (5 x number of bricks), 1 minute test. Technomancers cannot directly benefit from the program, as it is incompatible with a living persona, but any hitchhikers going along can use the program. Each hitchhiker riding along with a technomancer needs a rating 3 brick to run the program, with the same setup test needed.

Anyone using the Nexus Protocol will experience the Foundation in full UV clarity; the experience will be indistinguishable from reality. Depending on the paradigm, it could be a very strange reality. Just as with a UV host, the runners use their actual attributes and skills through their avatar. Equipment functions exactly as it's remembered to operate, but all weapon damage is still 3P or 3S. Characters with an Electronics or Cracking skill also gain a pool of bonus dice to use while here. This pool is equal to the higher skill rating and refreshes each combat round. Outside of combat, a maximum of half the pool can be added to a test. Any test can be augmented this way, as this represents this character's inherent skill in the Matrix. Damage to a Foundation avatar is handled in the same way as it would be without the Nexus Protocol.

Hitchhikers riding along with a technomancer will also have their highest-rating skill and attri-

bute increased by 1 in addition to the other benefits, even if it goes beyond their natural maximums.

## THE HOST FOUNDATION PARADIGM

The construct that the metahuman mind uses to make sense of the host Foundation's data flow, known as the paradigm, is drawn from the subconscious of a user at the time of entry and can be literally anything imaginable. Unless it has been locked in place with another user or an anchor, the paradigm stays in a state of flux and will be different each time a host Foundation is entered. The paradigm is set by the first mind that enters the host Foundation; anyone following will share the same paradigm until everyone inside has left and the host Foundation returns to a state of flux. Leaving an anchor in the portal will lock a host Foundation into a given paradigm for all users until all anchors in the portal are removed.

Once a paradigm is set, the internal structure will remain consistent. It may still be dreamlike, but the individual elements of the dream do not shift around. Once a given node or other element of the paradigm is discovered, it does not change its form or function until the paradigm itself changes.

The animated elements of the paradigm, specifically the “people” that occupy the host Foundation, are actually like IC in the upper host. They will generally have attributes and skills equal to the Host rating, but at the gamemaster's discretion, they may have lower ratings. The physical elements of the environment will have a structure rating equal to the host rating, unless the gamemaster decides to lower them, so that pane of glass may be just as tough as a vault door—or vice-versa.

## VARIANCE IN THE PARADIGM

When an avatar in a host Foundation does something inconsistent with the paradigm, the inconsistency is called a variance. As the accumulated total of the variance increases, the host Foundation will eventually go on alert. The variance works in a manner similar to the Overwatch Score; when a test is made against the Foundation, each hit on the opposing roll, whether the Foundation's defense was successful or not, will add +1 Variance Points. In addition to Opposed tests, any avatar can increase the variance by acting in ways that are out of sync with the paradigm. Examples of this include saying the wrong thing to a construct, acting in a manner inconsistent with the paradigm rules, attempting to run a command that is unavailable at a given location, or trying to run a command on something that isn't a node. These types of actions create between +1 to +5 variance points, depending on the inconsistency of the action. The occupants of the Foundation may react when a variance

is created, finding the activity odd or curious. This represents the Foundation's efforts to make sense of the input information.

If the runners stay long enough, the variance will eventually reach a point that the Foundation goes on alert. The threshold for this should be set by the gamemaster according to the nature and rating of the host. A good rule of thumb would be 80 points – (5 x the host rating). Once the variance point score matches or exceeds the threshold, the Foundation will go into alert and attempt to eliminate the source of the variance.

The narrative effect of this attack is that all of the elements of the Foundation—the inhabitants, creatures, and even the environment—start attacking the avatars. As a game mechanic, the Foundation will make one attack against each of the avatars each combat round, with a dice pool equal to twice the host rating, and Physical damage value equal to one-half the host rating. Counterattacks are pointless, since if the attacking element is destroyed, it will simply be replaced by another element of the Foundation. The only solutions are to leave the Foundation or to run a Calm the Beast action in the Primary Control node.

## SPECIAL ACTIONS AVAILABLE INSIDE THE HOST FOUNDATION NODES

All host Foundations always have seven sections, or nodes, each with its own functions. Since the paradigm of a Foundation runs on metaphor and intent, actions in the nodes are made by manipulating elements of the environment in a manner consistent with its particular paradigm. Actions to manipulate the nodes operate via the underlying intent but still require some hacking skill. All the node action tests are expressed that way, but it's up to the gamemaster to decide what actual actions the avatar must take to stay within the logic of the paradigm for those outcomes to occur.

## DATA TRAILS

These constructs are the connections between the nodes of a Foundation.

**Travel a Data Trail:** Requires a Major Action but no test. When the players attempt to travel along what they believe is a data trail, the gamemaster rolls 2D6 to see what type of trail they are dealing with. Data trail states will reset when the runners leave a node, so re-roll if they attempt to use a given data trail a second time. For nodes that have more than one stable data trail, randomly determine where the trail leads. If a data trail is in a one-way state leading into a node, it may not be traveled until it changes.

ROLL	RESULT
2-4	This is a regular data trail to an adjoining node in a one-way-in (unusable) state.
5-6	This is a regular data trail to an adjoining node in a one-way-out (usable) state.
7	This is a temporary (one-use) one-way data trail leading to a random node.
8-12	This is a regular data trail to an adjoining node in a two-way state.

## THE PORTAL

The Portal is the primary way out of the host Foundation after the runners have entered it. Finding the Portal is usually a priority for all deep-running hackers. There are two stable data trails from this node, one to the Archive and one to the Null node.

**Create an Anchor:** A hacker builds an Anchor and places it at the host's portal. This has two effects. First, any anchor prevents the host's paradigm from changing after leaving the Foundation. Second, as a Major Action, a hacker can move from one anchor they have created to another of their own Anchors without a test. The test for creating a new Anchor in a portal is Electronics + Logic v. Host rating x 2. Additional hits from this test may be used to either disguise or strengthen the Anchor; see the Destroy an Anchor action below.

**Destroy an Anchor:** Sometimes a hacker may want to remove another hacker's Anchor. It can be destroyed just like any other element in the Foundation. Determining whether it's really an anchor requires a Matrix Perception test with a threshold of 1 or the number of hits allocated by its creator to disguise it. An Anchor resists damage with a dice pool equal to 2 x the Host rating plus any hits allocated by its creator to strengthen it. An Anchor has a Condition Monitor with a number of boxes equal to the host rating plus any hits allocated to strengthen it; once the track is filled, the Anchor is destroyed.

**Exit the Foundation:** From inside the Portal node, a hacker may attempt a Cracking + Intuition vs. Host rating x 2 Opposed test. If successful, they are immediately switched to AR mode and the hardware (or living persona) reboots. The hacker and any hitchhikers along for the ride are now out of the host Foundation and back in the real world.

## THE ARCHIVE

The Archive is the area within the host that stores files securely, locked away from all unauthorized users. Normally, only someone with ownership of a file can remove it from the Archive or store it there. Accessing files from inside the Archive bypasses any encryption or data bombs attached to them. There are four stable data trails from this node, one to each of the Portal, Scaffolding, Device, and Security nodes.

**Find a File:** The hacker looks for a file in the Archive. If they have the exact file information, no

test is needed to retrieve the file. With only partial information, a successful Electronics + Logic vs. Host rating x 2 Opposed test is required for the hacker to locate the correct file.

**Copy a File:** Make an Electronics + Logic vs. Host rating x 2 Opposed test. This creates a copy of the file without any ownership or protection attached to it.

**Edit a File:** Make a Cracking + Logic vs. Host rating x 2 Opposed test to change the file in a way that is undetectable to any future scrutiny.

**Delete a File:** Make an Electronics + Logic vs. Host rating x 2 Opposed test to destroy the file, leaving no trace of it in the Archive.

## SCAFFOLDING CONTROL

This node controls the host's Scaffolding. It can give a hacker power over the upper levels of the host that users normally interact with. There are four stable data trails from this node: one that leads to the Archive, one to the Primary Control, and two leading to the other host operation nodes.

**Observe the Host:** The hacker can take a peek into what's going on in the host scaffolding. Make an Electronics + Intuition vs. Host rating x 2 Opposed test; every net hit gets the hacker unrestricted access to view what is going on in one host Scaffolding location.

**Edit Host Sculpting:** The hacker can make an Electronics + Logic vs. Host rating x 2 Opposed test. Each net hit allows the hacker to change one detail about the sculpting of the host.

**Reboot the Host:** This rather extreme measure dumps all personas inside the host scaffolding (but not the host Foundation). With a net hit on a Cracking + Logic vs. Host rating x 2 Opposed test, the host shuts down; it takes (net hits) minutes to reboot.

## SECURITY CONTROL

The Security Control node handles the security systems and IC inside the host scaffolding. There are four stable data trails from this node: one that leads to the Archive, one to the Primary Control, and two leading to the other host operation nodes.

**Launch IC:** The hacker makes a Cracking + Intuition vs. Host rating x 2 Opposed test. For each net hit, the hacker can launch one IC in the host Scaffolding. They may choose what is launched from all the IC programs available to the host. All standard IC rules still apply: a host can only launch one IC program per combat round at the beginning of the turn, may only run one copy of each type of IC, and can only have up to its rating in IC running at once.

**Recall IC:** The hacker makes a Cracking + Intuition vs. Host rating x 2 Opposed test. For each net



hit in this test, they can recall one active IC program in the host, removing it from the Scaffolding. The host may still launch that IC again later.

**Reconfigure IC:** The hacker changes the order in which IC is deployed by the host, or removes IC programs from what the host has available for deployment. For each net hit on an Electronics [Software] + Logic v. Host rating x 2 Opposed test, the hacker can make one change in the order that the host deploys IC. This action takes effect immediately but has no effect on IC that is already deployed.

## DEVICE CONTROL

All devices linked to the host are controlled from this node. There are four stable data trails from this node: one that leads to the Archive, one to the Primary Control, and two leading to the other host operation nodes.

**Find a Device:** The hacker looks for a specific device linked to the node. With a successful Electronics + Logic vs. Host rating x 2 Opposed test, the hacker finds the desired device.

**Control Linked Device:** This node action works almost exactly like the Control Device Matrix Action. After a successful Cracking + Logic vs.

Host rating x 2 Opposed test on a located device, the hacker has control of that device. They gain 1 point of Edge that must be used on the action made with that device, or it is lost.

**Brick a Linked Device:** Choose one located, linked device and make a Cracking + Logic vs. Host rating x 2 Opposed test. If the hacker succeeds in the test, fill a number of boxes equal to 2 x the net hits on the device's Matrix Condition Monitor. This damage cannot be opposed by the device itself.

## PRIMARY CONTROL

This node controls all operations of the host's Foundation. There are four stable data trails from this node: one that leads to the Null node and three that lead to the host operation nodes.

**Alter Foundation Reality:** The hacker can change one detail of the Foundation's paradigm, essentially adding, removing, or altering a single sentence of its description. Make an Electronics + Intuition vs. Host rating x 2 Opposed test; if successful, the change sweeps through the host Foundation immediately.

**Foundation Map:** Make an Electronics + Logic vs. Host rating x 2 Opposed test. Each net hit re-

veals the identity, location, paradigm details, and data trail structure of one selected node.

**Travel:** Make an Electronics + Logic vs. Host rating x 2 Opposed test. With a single net hit, the hacker may either open a temporary two-way data trail between any two Foundation nodes, or change the state of all stable data trails between nodes to two-way for the duration of the hacker's stay.

**Calm the Beast:** This action calms the Foundation, making it temporarily forget about any intruders within it. For every net hit scored in a Cracking + Logic vs. Host rating x 2 Opposed test, the variance point score lowers by 5 points. Opposing hits on this test still count for increasing the variance score. If the Foundation is already in alert by a variance reaching the host's threshold, this action can cancel the alert if the score is lowered below the threshold. The Foundation will go back into alert if the threshold is reached again at a future point.

**Destroy the Host:** It is difficult but possible to destroy a host from this node. It requires a succession of Cracking + Logic vs. Host rating x 2 tests taken a number of times in a row equal to the rating of the Host. The tests must be made continuously; if the hacker stops or fails even one test, the Foundation recovers, and the hacker must start over from the beginning. A variance is also created with every test made trying to destroy the host, successful or not, sending the Foundation into alert and attacking the hacker. After making the required number of successful tests, the entire host vanishes from the Matrix, dumping everyone out of the Matrix, including those in the Scaffolding or the Foundation.

**Configure Host Attributes:** With a successful Electronics + Logic vs. Host rating x 2 Opposed test, a hacker can switch the ratings of two of the host's attributes. The change lasts until another successful Configure Host Attributes action is taken.

## THE NULL NODE

This node is the power source for the host and the gateway into the Deep Foundation. It's also the most dangerous node to operate in. Variance created in the Null node will have two times the regular value, and attacks from a Foundation alert will cause an extra +2 points of damage. There are two stable data trails from this node: one to the Portal and one to the Primary Control.

**Enter the Deep Foundation:** Finding the Portal outside of the Null node to the Deep Foundation requires an Electronics + Logic (12, 1 combat round) Extended test.

## SUDDEN HOST INSTABILITY AND THE DESCIDIUM

The Descidium was a digital weapon acquired by shadowrunners in *The Collector* (mission 30 of *The Third Parallel*). It was deemed too dangerous to use at the time, but just like every other weapon metahumanity has ever acquired, the label "too dangerous" never stops anyone for long. A group of technomancers out to exact revenge for crimes against the Emerged managed to get a copy and promptly put it to use. While it is extremely effective at destroying a single Foundation host, each use of the weapon contaminates other Foundation hosts through the connection of the Deep Foundation. The program will spread like a virus and eventually cause problems in Foundation hosts across the Matrix. The only question is how long it will take.

This weapon can be used as a plot element by the gamemaster. Fallout from the use of the Descidium may affect any Foundation-tech hosts that the runners are operating in. It can be represented as a noise modifier inside a host, visual problems with the host's icons, glitches with IC or other host functions, or even corruption of data in the host. The runners may be hired to investigate the problems, track down a copy of the weapon for a Mr. Johnson, or perhaps stop someone else from using the program.

The Descidium will anyways be in a rating 8 encrypted format when first encountered. It can be decrypted, read, and copied the same as any file. If a copy is released inside the Null node of a host, it will disperse into the node and begin severing the connection between the host and the Deep Foundation. Once released, the program is undetectable and unstoppable. As the program starts degrading the host's connection to the Deep Foundation, it will impact performance. Symptoms will start small but quickly escalate, becoming progressively more serious. After a number of days equal to the Host rating, the entire host structure will collapse, crumbling back into the Deep Foundation. Any occupants inside the host or host Foundation when this occurs will be ejected from the Matrix with dumpshock.



# INFINITE MEMORY

## TECHNOMANCERS SHOULDN'T EXIST (ACCORDING TO PHYSICS)

POSTED BY: PERRI

- It's rare to have Perri post over here on JackPoint—she's usually too busy running the Nexus, but as Fastjack's daughter, she has a lifetime membership here, regardless of how rarely she posts. You may have noticed from the last section that she is working on a new theory about the Matrix, a universal information theory called UniTiy. It's an attempt to tie together the Resonance Realms, digital life, technomancer abilities, the Deep Foundation, and the digital Matrix that all of us operate in. I thought it would be interesting to see things from this perspective, so I've asked her to introduce this topic and share some of her insights on the Resonance Realms.
- Slamm-0!

Let's face it, technomancers shouldn't exist. The science says that a metahuman mind should only be able to access a computer by using technology designed to pick up brain waves. The science says that generating the power needed to manipulate a computer system from across the room, much less from across the sprawl, is totally impossible. But it happens every day, thousands of times a day. So, what's actually going on? There must be some force beyond the reach of science that the mind of the technomancer is tapping into. There is such a force, and for lack of a better name I'm calling it *nous*—the Greek version, not the English slang. Technomancers can reach out through this force, connecting their mind to the Matrix and by extension accessing everything connected to the Matrix. Sounds like magic, right? But it has nothing to do with magic—if anything, you can think of *nous* as a parallel universal force extending through the metaverse touching every place that stores digital information.

Near the physical world, it organizes into a noosphere exactly mirroring the Matrix. Every bit and

byte in the Matrix is duplicated in the noosphere, and when a technomancer's mind alters the nous-field structures, the real world data is also changed. The overlap between nous and circuit is so smooth that it's not readily evident that there are actually two different processes occurring. When the real-world data changes, the nous version continues to exist, but in a form with lower entropy. Untethered from its mirror version, it drifts lower in the noosphere, resting in the Deep Foundation for a while before passing on to a Resonance Realm like the Endless Archive or perhaps some of the others.

What does this have to do with the Resonance Realms? In short, everything. The nous energy accumulating in the deep Foundation is what powers up Foundation-tech hosts. I also suspect it's the energy that gives rise to sprites and other forms of digital life, even providing the life spark for otherwise non-Resonant AIs. The structures of the noosphere are organized to mirror the Matrix when they are created, and they retain a semblance of that pattern as they move away from it. They become self-organizing fractal reflections of the Matrix and the world that it operates in, each iteration diverging further from the original pattern. The Event Horizon and the deep Foundation form a shield around the noosphere where it overlaps the Matrix, acting as a barrier for most users. Submerged technomancers can pass through these barriers and travel along the tendrils of nous energy connecting the Resonance Realms. They may take the novice traveler to a random location, but they can also be used like highways running across the desert connecting distant cities, towns, and the occasional lonely waystation. The technomancer who has undergone submersion can travel along these trails and highways, for as long as their bodies can allow, using only their minds to explore the unknown frontier.

I'm going to turn the rest of this post over to one of those explorers, someone who has spent more time in the Resonance Realms and gone further into the unknown than any other technomancer I know. With that, I'll introduce you to T3chK1d.

## KNOWN RESONANCE REALMS

POSTED BY: T3CHKID

This subject has not been updated in a while and Perri asked me if I could take care of it. She has arranged for Slamm-0! to provide guest credentials, and I look forward to giving you all a synopsis of the known Resonance Realms. As she has already pointed out, the Realms seem to be infinite. Much like in the Age of Exploration, governments, corporations and the average metahuman see the Realms as a path for the rapid accumulation of power and nuyen. They do not realize or care about the potential dangers.

I am going to discuss the Realms in order of their difficulty to access. This usually correlates with how much they resemble our world, but not always. I will start with the ones that are easiest—those that are closest?—or at the ones most like the physical world and go from there.

- Never heard of T3chK1d. Does anyone know anything about him?
- Glitch
- I worked with him once—he's a young human male. I needed some help on a local issue. He was our decker, but I was worried because he seemed so young, early twenties at most, and he had what looked like a junk deck. Turned out he was amazingly good for his age and equipment.
- 2XL
- Wait, that doesn't make sense. Perri said he was a technomancer, and why would a decker be asked to cover the Resonance Realms?
- Sim-Eon
- He's a gnome who can pass as a young human. I have worked with him on and off for fifteen years and he still looks and acts like he did when I first met him.
- Icarus
- He's in his early forties, and trust me, he's a technomancer. He carries that junk equipment around to help him sell his story about being kicked out of college and needing money, or that he's a rich boy slumming it without his parents knowing, or that he's working to find the group of ninjas that killed his family. I have been on several trips to the Resonance Realms with him, and when you go there with him, it's like being with the most popular kid in school. He has a knack for positive interaction with the local denizens of whatever Realm he's on—they give him preferential treatment.
- Perri

## ENTERING THE REALMS

The first step to get into the Realms is to get past the Event Horizon, and to do that you have to be in tune with the Resonance through a technique known as Submersion. Sometimes this can be taught, a secret passed from one technomancer to another, or for some it can be gained from self-reflection and meditation; for me it had to be achieved by challenging the Event Horizon directly, burning out the imperfections in my mind and my living persona.

Regardless of how you learn to overcome the Event Horizon, when you do, it's like your first kiss. You're excited, scared, and not sure what you're supposed to do next. Just like kissing, you either have to keep practicing, find a good partner, or both! Luckily for you all, you have me. So sit back, relax, and let me show you how this is done.

- › I feel dirty just being in the same host as this guy, and for those who know me, that should tell you something.
- › /dev/grrl
- › He's like that in person too. But when it's biz, he's a professional, and like I said, denizens of the Resonance Realms seem to love him.
- › Perri

As to the Event Horizon itself, the gateway to the Realms is sometimes called the Great Firewall. It's a puzzle or challenge that has to be overcome every time you want to pass through it, and it's always a barrier to passage into the Resonance Realms. Many technomancers have tried to explain what it actually is, and honestly, I don't know either. It's a barrier of some kind that surrounds the Matrix, and you can't get into the Realms without going through it. The appearance changes from one encounter to the next, but no matter what it looks like, it will always test you, searching out anything it—or your own subconscious—deems to be a bug or flaw. It will attempt to remove that before it lets you pass. Challenging it can be a mind-shattering trial by fire, but it can also be a rebirth that gains you new insights into the secrets of the Realms. The Event Horizon has access to all data contained in the deep Foundation and all the memories from your own subconscious, and it will construct the challenges from this material. Whatever keeps you up at night, maybe some misdeed recorded on security footage during an old run or a memory of childhood trauma, anything could be used against you here. If you can't slay your own demons, then your journey ends at the barrier, but if you can pass the test, you are on the way to the Resonance Realms.

## THE REFLECTING POOL/ THE DEEP FOUNDATION

I'll cover this one first, since it's the easiest to get to. There's some debate about this level—is this really a Realm, or is it something else? Many believe this is where the Resonance Realms and physical world meet. As an illustration, if you put water and oil in a container, this would be like the boundary layer between the two. The Reflecting Pool, also called the Deep Foundation, is perhaps both the top layer of the Resonance Realms and the Foundation of the Matrix. A submerged technomancer can use the Event Horizon to get into the Pool, but a regular decker can also get to it through a host's Null node or even by just constantly moving down from any spot in the Matrix and looking for a way in.

This leads to a question about where the Event Horizon is in relation to the Deep Foundation. I think they may actually be the same thing, but they can be navigated by two different methods.

Anyway, this place operates like a host Foundation and creates the same type of avatars, but it doesn't have any nodes or a real paradigm. It's more like a Resonance Realm in the way it's set up, a not-quite perfect copy of the real world, with all the places you remember, populated by versions of people you know or have known in the past. Due to the limited pool of people to draw from, the Reflecting Pool re-uses those people for different roles. It's freaky how the different versions of the same person will remember what you discussed five blocks away in a soykaf shop, but now they're selling stolen comms in a back alley and continuing the same conversation.

Keep in mind that unlike a host Foundation's paradigm, not everyone you meet is a Foundation construct created from your subconscious mind. Some of those familiar faces will be wild sprites or an AI playing along, or they could even be one of the Null Sect in disguise.

- › Something about this reminds me of what I've heard called the Great Connection; you know, the large tree that floated on a lake of pure data. Where you could travel to any part of the Matrix.
- › Netcat
- › No one has been able to find the Great Connection for a long time. I think this may be what remains of it, but over the decades it's taking on more aspects of the modern world.
- › Puck

## THE VOID

I don't believe this "thing" is a Resonance Realm, but I have no idea what else it could be, and ghost's truth, I don't really want to know, as it scares the drek right out of me. It seems to be somewhere around the Event Horizon, maybe part of the Deep Foundation or between it and the upper Matrix. Sometimes you can feel it while passing through the Event Horizon, like a vast emptiness nearby, trying to draw you in. Like ice-cold tendrils digging into your brain. Other times you can hear whispered voices begging for help, or maybe hundreds of distant voices that cry out to be released from whatever hell they are in. If anyone is brave—or crazy—enough to track down the entrance to this place and go into it, and you make it back out with your mind intact, let me know what you find.

- › I've heard the ghost stories about this before. People say the minds of those trapped in the Crash are still stuck in the Matrix, held in some type of limbo or a dark reflection of the online universe we know.
- › Plan 9
- › I remember a message that showed up a few years ago from someone using the handle DionySys. She claimed that she



and thousands of other people are trapped in someplace that sounded a lot like this. I checked out the name and someone using it did flatline in the '64, so ...

➤ Netcat

## ENDLESS ARCHIVE

The average Matrix user employs a browser program to search the Matrix. They will scan the first page, maybe the second, and make a decision where to go next. Have you ever wondered what happens to those things further down the browse algorithm?

All data leaves an indelible trail in the Matrix. With each new fragment of generated, transferred, or deleted data, the remnants of older data are buried beneath the newer and will soon be nearly unattainable for most who search for them. These fragments sink deeper and deeper into the background of the Matrix, coming to rest in the storage banks of the Endless Archive.

The first explorers of this realm told of dark halls lined with endless bookshelves that contained all known data from computational devices. Pages and sometimes entire books randomly appear on shelves, the floor, or even fall from above as new data is created or destroyed in the Matrix. The corridors are occasionally occupied by sprites categorizing, organizing, and shelving books like obsessed librarians. Many technomancers have tried to break the cataloging system used by the Endless Archive, but all have failed. At times, sprites will be willing to search for archived data or data long lost and irretrievable in the Matrix. The time it takes to get this data can vary dramatically. Nothing is free in any world, and in exchange, the sprite will want data that has never appeared in the Matrix.

Here's an example of what form that payment may take. I needed a piece of paydata and attempted to find it in the Archive myself but couldn't locate it. The time spent there made me aware of one sprite librarian who paid more attention to me than the others. It was easy getting it to understand who I was, what I wanted, and how to get it to me once it was found. The other side of the negotiation was much more unique. My visit ended with the sprite giving me two lists of old flat-vids. After some research, I figured out that all the films on one list were made by the same late-twentieth-century production company. The other list was vids from different production companies, but they all had the same actor. I went back to try and find out what it actually wanted, but it just merged the two lists together and stared at me. It took me two weeks to figure out that the production company from the first list had done a vid with the actor from the second list in 1972. It was about a teacher who starts a volleyball team to boost school spirit. So maybe the librarians are into sports? For whatever reason, that vid had never been released or uploaded in a

digital form. After some more searching, I found a physical copy and player on an online auction house. When they arrived, I made a digital copy. I wasn't sure how to get the file to the Archive, so for kicks I uploaded it to a free vid site. Fifteen seconds later, I received the data I needed.

## TOMBSTONES

Underneath a starless sky lies a realm of infinite dark rolling hills and an uncountable number of bleak tombstones. The tombstones come in black, white, and every color in between, and they cover a wide range of sizes and ornamentation levels. Each tombstone represents a dead program and shows the last output it displayed. The magnitude, complexity, and accoutrements of the tombstone represent its popularity and prevalence. There are areas covered in tiny plaques on behalf of each individual program that students create in school. Other areas are dominated by a single mausoleum, sculpture, or other edifice declaring the greatness of a common operating system or accounting software. At the outer edges of the tombstones, you will find the dead ringers. These are the tombstones for programs that are not quite dead yet. Error messages and other signs of failure are displayed, but each new output of these dying programs produces a sound similar to a bell ringing.

Though these programs are all dead or dying, there is a wealth of information that can be gathered. All it takes is someone willing to put in the time and effort. You could look into an outdated accounting program and possibly discover some creative accounting where assets were siphoned off to manipulate stock prices before a hostile takeover. This realm is also a great place to do the leg-work on someone or something that may have files compiled in these older programs. Just know you are not going to find a lot of recent information—newer programs are typically too popular for their data to be here.

- Is it possible that all the copies of that Kechibi Code that have decayed end up here?
- Rikki
- I haven't been able to find any copies, but that doesn't mean it's not there. If we're thinking about it you know that others are as well.
- Netcat

I know you are saying to yourself if this place is a milk run, why *wouldn't* I go there? Well, I'll give you a reason: The sprites in this realm aren't like anywhere else. They haunt this realm and take on familiar human shapes—the realm seems to be able to sense people who have been lost in the Matrix. If someone died while jacked in or was a technomancer who died tragically (even if they

weren't in the Matrix at the time), their image can probably be found here. If you have lost someone like that, this realm can be a hard place to visit, and for some it becomes a hard place to leave.

None of the sprites haunting this realm will ever talk about their former lives. They just endlessly patrol the grounds, working to keep the weeds away from the tombstones. There are stories of technomancers coming here looking for family or friends. Those who succeed in finding a lost one can be tortured by their memories. The sprite will never acknowledge them—they simply walk the hills performing their duties with the other sprites. These technomancers may become obsessed with watching their loved ones, and some even neglect their own body to the point of death.

Then there's the other reason I don't like going there. It's a little more nebulous, I can't put my finger on exactly why, but something about this place makes me think it's connected to the Void.

## THE FACTORY

When visiting the Factory, a technomancer will find themselves outside a building that stretches out in all directions. A hazy orange glow permeates the sky. The only known entrance into the factory is via a side access door. The door's easy to open, and from there you can see across the factory's floor. Vats of raw data are hoisted overhead, occasionally dripping raw Resonance on anyone underneath. In this area, sprites are assembling other sprites out of Resonance. Traveling further into the building, you will find a variety of robots, creatures, and other devices being assembled. Once completed, they are quickly packaged like they are about to be shipped. The smell of this realm is a mixture of dust from grinding wheels, oil-based coolants, and cutting fluids. Once you are here for a while, you realize that each section of the building specializes in a particular type of sprite or Resonance creature. There are several theories about this realm, ranging from the creation of all sprites and data constructs to where these entities go for repairs after they de-rez.

Other aspects of a typical factory are also seen here. Keep an eye out and you may find one of the floor supervisors walking around inspecting the work being performed. They are usually approachable, and they can provide insights into a variety of technical areas, but the information gained will be work-focused. If you're looking for the source code of a sprite, a supervisor may be able to point you in the right direction. Typically, it will be in one of the numerous technical manuals located around the factory floor. Most are filled with boring and very technical information, but the source code for sprites can also be found here. Rumor also has it that there is something here that the supervisors report to, but for now it's unsubstantiated.

There are numerous hazards, sprites, and fast-moving delivery vehicles here. The Factory seems to take health and safety seriously, but accidents still happen. In addition to that, there exist a number and variety of sprites unseen anywhere else. Some are feral or malevolent—you could walk by a newly completed sprite and have it decide to attack you. So watch your step.

## HUMAN MALICE (DISSONANT REALM)

This realm is permeated with the feeling of malevolence. When you enter, you are accosted with every negative emotion you can imagine. Once you get those tamped down, everywhere you look you are confronted with sounds and images of every horror you can imagine. The bad part is, the realm somehow makes it known that everything you're seeing and hearing has really happened or is happening at that very moment, streaming straight from the Matrix. So you can't even try to fool yourself into thinking it's not real. That is why you hear people say no sensible technomancer would go there. But people aren't sensible, and Malice has a lure that some people can't say no to.

- I know a brother and sister technomancer team who went there looking for some dirt on a politician. I don't know what happened, but they haven't spoken to each other since.
- Sim-Eon

Most realms have some type of purpose; like the Endless Archive carefully storing information or the Factory creating all varieties of sprites. I'm not sure what the purpose of Malice is. It's a hot, humid, and filthy-smelling series of back alleys that even the most seasoned runner would hesitate to enter. Blinking and burned-out neon signs list a range of available services and information. It doesn't matter if you're looking for hate-filled manifestos, simsense snuff porn, or newly cooked-up street-drug recipes, it can be found here. Everything that someone should regret saying or doing, or that they should be ashamed of, can be found in Malice, even if they think they've erased it from existence.

The denizens of this realm are twisted caricatures of humans. Distorted, sweat-covered sprites outfitted in deteriorating rubber or synthleather bodysuits covered with straps and buckles, with no two of them exactly alike. At first, no one knew what the denizens of this realm did, because no one stayed around to find out. Stories are starting to circulate that some of the more human-looking sprites will interact with visitors, and I do not want to know what kind of deals are being discussed in these back alleys. There have also been rumors about helpless technomancers being carried off to

the darker corners of this realm by the residents. I don't want to think about their fate.

People who visit this realm can slide into madness and many do—or maybe they were already insane before they came here—but I recommend that novice travelers stay away from here. Whatever reason you think you have for going, it's not worth it. However, if you're serious about traveling to Malice, I hope you're out before the sprites know you're there.

## PLAYGROUND

A recent discovery is called Playground. When you arrive at this realm, you will always be outside a large red brick building. The sky is always a beautiful blue and cloudless. A simple fence nearby is presumed to be the limit of the realm as it encompasses the entire area. If you walk to the fence the freshly cut grass continues in all directions as far as the eyes can see. No one has been able to get over, under, or through the fence, and debate continues about what, if anything, is out there.

The interesting thing is what lies between the building and the fence. There are equally spaced sandboxes that start near the building and continue until shortly before the fence. The sandboxes have what appear to be small metahuman children building and playing in them. I've witnessed two girls building a meter-high scale version of the skyraker in Nashville. Others have reported seeing sandbox versions of buildings, products, and monsters. There are even times when additional kids appear inside a sandbox to tear down a model or fight monstrous creatures. So far, no one has been able to enter a sandbox, as they seem to be surrounded by an invisible and impassable barrier.

The building is a red-brick structure that has rows of windows slightly above ground level. Anyone walking to a window can easily look inside. The rooms all have some sort of large desk at one end with rows of smaller chairs and desks throughout the room. Occasionally a door can also be found—those who have opened these doors say they were assaulted with feelings of dread and fear. Most people stop at this point, but a few say they have gone inside. They generally are reluctant to talk about what they found, but if pressed they will give a description of the door and the entry hall, then break down into a panicked gibberish about the things that wander the halls between the classrooms.

- It's a Resonance Realm designed to isolate the Null Sect from the rest of the Matrix and Resonance.
- Plan 9
- Do you have any proof of that?
- Puck

- › Do you have any proof that it's not?
- › Plan 9

## CROOKED HOUSE

In the middle of a barren desert landscape, at the crossroads of two empty highways, stands the Crooked House. It appears as a small three-meter by three-meter concrete building with a nondescript door facing the side you approach it from, with the other walls having single windows. If you look through a window, you will see a large, richly furnished room with open doors leading into long hallways. After entering, visitors will find that the front door has disappeared behind them, becoming one of the hall doors, and they are now in a room that is much larger than the exterior of the crooked house. Hallways lead in four directions, and staircases go both up and down. The house has only eight rooms, each with a different function but with its own stairs, hallways, or the occasional window and even a rare, closed exterior door. Their arrangement is never the same, as they are connected randomly by the halls and stairs. As you move through the space you will eventually find yourself back in the first room. When walking through the house, you may also see a glimpse of yourself traversing other sections, or you may meet other travelers looking over their shoulders, hoping to experience the same effect. Peering out of the windows provides views of strange cities or fantastic landscapes, but any of the occasional exterior doors only open to the desert highway. There are numerous theories on exactly what the Crooked House is and whether it's a junction point between different Resonance Realms, possibly even undiscovered ones, but to date the mysteries of this Realm remain unsolved.

## CRUFT

This is one of the deeper Resonance Realms, and the entrance can be difficult to pass through even if you know where to go. There is no door, but you have to force yourself through a clinging, sticky, matted mass of fibers. I can best describe it as feeling like an insect trying to escape a spider's web. Once you make it through that mess, you find yourself waist-deep in a material that looks like rough, thick cotton. Upon closer inspection, it is more like a non-Newtonian fluid that is continually reacting to sound waves. Each step you take in the realm involves wading through deep masses of this material. If you stop moving, the whole realm seems to want to pull you down into its warm embrace, up to about your armpits. Applying pressure to any of the strands will cause you to see all kinds of memes, viral images, and videos. Music can be heard off in the distance and tends to be earworms that will get stuck in your head. This realm is lone-

ly, and the longer you stay, the more you will feel that way as well. To alleviate the symptoms, you only have to pick up and watch the pictures and videos. However, once you stop, the loneliness returns, stronger than before. It is not uncommon to hear of visitors getting lost in this realm for hours watching cats or geometric-pattern trids. The realm is grouped by material type. A few of the known sections are simsense three-emotion reels, shorter versions of popular tunes, cute animals, and comments about politicians and corporations.

It is possible to make nuyen by visiting this realm. You will have to keep in mind that your paydata isn't going to be in the nearly infinite cute animals section. You make nuyen by helping predict the masses' current opinion on a subject. By analyzing data that is passing through this realm, you could get an idea of how or who is helping some unknown person climb in the polls. If you're not into government politics, you may also find clues to what could be damaging to a given corporation.

For those technomancers who want to escape the world that hates them, this is a place they gravitate to. As some have learned the hard way, this realm can be habit-forming. Luckily, it only becomes dangerous if you stay too long and neglect your body. Most technomancers eventually do manage to pull themselves away from this realm's siren songs.

- › T3chK1d makes it sound like it's as easy as doing a Matrix search to find what you want. It's not. There is a mass of data, and you have to figure out what it means. As I said before, if you find something with a dragon-scale pattern, does that represent a specific dragon, the Draco Foundation, or the Saeder-Krapp corporation? And this is only the beginning of the sort of questions you'll face here.
- › Netcat
- › I don't like the place. On one of my few trips, I saw a girl do this motion like she was climbing stairs. She eventually got both feet on the top and was able to run around. I didn't see where she went or what happened when she stopped moving.
- › Respec
- › More than a few technomancers working for Horizon consider this to be their private hunting grounds. They have been making many branches of the megacorp quite happy by finding out upcoming trends and memes thanks to this. And they intend to keep this edge—and the Dawkins Group will gladly help.
- › Sim-Eon

## KERNEL PANIC

If someone gave you a dose of zen and turned it into a realm, you would have Kernel Panic. At least, that's a common description of the place. No matter what you call it, it is a very mind-bend-

ing experience. Do you hear those stories of people who can smell colors or think numbers are colors? If you visit Kernel Panic, you may get a chance to have a similar experience. This realm is a place of continual shifting colors and patterns. When you first arrive, there seems to be no reason to the realm. All senses combine and tangle to overload the visitor. If you manage to stay focused long enough, you will start to see the order in the chaos. One second you can smell your favorite soy compound while glimpsing an unknown theory for Resonance quantum mechanics. The next second, you're on a life-sized chess board, playing chess with a sprite that is using its complex form as the pieces.

Kernel Panic is a confusing place. The lead theory supported by most technomancers is that Kernel Panic is pure Resonance. It can take any form, and it's easy to work there. Hence, technomancers who are trying to discover more about themselves and the Resonance end up in Kernel Panic. You will hear of people who gain nothing from their visit, but there are no known cases of anyone becoming dissonant after visiting. Therefore, it is a popular and safe destination for technomancers learning to submerge.

- Does this realm have a lord of the domain? If so, is it Colonel Panic?
- Bull

## CORPWORLD

I wasn't going to mention this one, because it's really hard to locate. You have to go past several others to get to it, and I haven't ever found anything there to make it worth the trip. I think it must be far out in the Realms, but it's weird that it seems so far out. It's a lot like the Reflecting Pool—the whole place has the same type of reflection-of-the-real-world vibe to it. But it's not the real world. Everything there seems to be centered around the Big Ten—sort of. All the names are wrong, close but not quite right—like Kruber-Schmidt, Mars Macrotechnology, and AzCorp. The place names are off, too, and the residents are some of the strangest I've run across. Most are literally faceless constructs with no Resonance, so they can't be sprites. They seem like poorly made copies of metahumans, automatons just there to carry out some pre-programmed task. The rest seem fairly normal, but still with no Resonance, and they are either all about advancing one of the megacorps or fanatically trying to tear them all down.

- Are you sure about those names? I'm asking because there's a metaplane by the name of Zecorporatum that sounds a lot like the place you're describing, and the names of the corporations are exactly the same. I've never been there, but I know it has its own version of the Matrix that's a lot like ours. I think you may

have found this metaplane's version of the Deep Foundation along with its connection to the noosphere.

- Perri
- Wait, what? How the frag does a metaplane have any version of the Matrix on it? I thought that magic and technology didn't mix.
- Slamm-O!
- There are several known metaplanes other than Zecorporatum that have some type of Matrix equivalent, the best documented example is at the Seelie Court. I've been looking into these "intersections" for my work on UniTy. I believe the noosphere runs parallel to the astral, and any metaplane that has organized data storage should connect to both forces. T3chK1d's discovery may help prove that theory. A metaplane with no Matrix equivalent would not connect to the noosphere, only the astral, and conversely there should be planes of existence that have no mana, so they do not connect to the astral. This may be what the Resonance Realms actually are—metaplanes (or dataplanes) that do not connect to the astral plane, only the noosphere.

Regarding the Seelie Court's Matrix equivalent, I understand there are people called the coimeádai, or the keepers, who are either technomancers magically enhanced in some way, or maybe the Seelie are bringing out technomancer abilities with some type of magic. Either way, their minds generate a type of proto-host that the Court uses to store vast amounts of information including transferring the memories of the courtiers. Unlike the mind of a technomancer, these proto-hosts can be hacked, same as any other device. The minds of the coimeádai also support a grid of sorts, and the courtiers there use magical artifacts called silver books to interact with them. Most of the silver books function exactly like commlinks, but some operate as fully functional cyberdecks. And get this—if someone carries a commlink or cyberdeck into the court's metaplane, it turns into a silver book just like the ones the courtiers use. Sadly, it turns back to normal after you leave.

As far as magic and technology mixing together out in the astral, I have actually met an example of that. There is a native from a metaplane called Dis here in Denver using the name Refugee, and while I have confirmation that the creature is definitely a magic-using spirit, it can access the Matrix and navigate it without a cyberdeck. I couldn't detect even a whiff of Resonance on it, but it certainly operates in this world's Matrix exactly like a technomancer. I don't have any information on what the Matrix of Dis is like, but the creature insists that there is one. In light of its abilities, I don't doubt it.

Of course, my biggest question now is, do these Matrix equivalents on the metaplanes actually connect to the Resonance Realms? If T3chK1d has discovered a Resonance Realm that is really connected to the metaplane of Zecorporatum, I want to prove that. I think I can get myself to the Zecorporatum; I've heard about a guy here in Denver named Arcane who can open a gateway to it. If I can convince someone to go to the Resonance Realm at the same time, and if we can find each other there, it will prove my theory that nous is a universal force.

- Perri



- Challenge accepted! Just let me know when.
- T3chK1d
- Speaking of silver books, wasn't there something about the nexus protocol using information from a silver book? Was that something gained from the Seelie Court?
- Respec
- The information for the program did come from a silver book, but not one from the Court. It came from the Library of Alexandria on the Kindred Metaplane—a library reported to have a functional host in it, by the way. The book is attributed to someone called Saeletra, someone my father Fastjack was obsessed with, and someone who also made some rather strange claims in the NeoA Streetpedia a few years ago. I have no idea where the book originally came from, or who—or what—Saeletra actually is. In addition to the information we used to create the nexus protocol, there are megapulses worth of data that still needs to be deciphered, most of it in languages I can't even find references to.

We've hired an arcanoarcheologist based here in Denver, Dr. Rutherford Kaine, to translate some of the text. He claims that sections are written in dead languages from the Fourth World. From the place names and the people mentioned, he is convinced that the book is either from that age or was written by someone who lived at that time. Most incredible are the passages that hint at "the Seed," which seems to be some type

of ancient Matrix-like system, maybe something like what exists at the Seelie Court today, just five thousand years older.

➤ Perri

## RESONANCE RIFTS

Before I finish up, I want to talk about a different way to get into the realms. I don't recommend actually using this method, but sometimes you may not have a choice. Resonance Rifts are notorious for appearing where and when you least want them to, but they can take anyone straight to anywhere in the Resonance Realms. These phenomena cut straight through the Event Horizon and can be thought of as winning the lottery—or getting struck by lightning—by gaining a once-in-a-lifetime ticket to a random Resonance Realm. The trouble is, it's probably a one-way ticket.

A Resonance Rift does not look like anything else the casual Matrix user will have ever seen. They frequently have some sort of terrifying and awe-inspiring visual representation that can be seen by everyone, Emerged and mundane alike. It could be a whirling vortex, a massive tempest of data, or even a huge tear in a host that bleeds 1s and 0s, and they have a tendency to drag in any unwary and unwilling Matrix users nearby. The primary problem with using rifts to travel is finding one—they are extremely unstable, appearing

randomly and collapsing without warning. Discovering one on purpose is incredibly difficult. It's more likely that one will find you long before you ever find one by searching.

If you want to attempt traveling by rift on purpose, you could try making a deal with a free sprite that has the ability to create one. The Matrix contains many types of sprites, including ones that have become unlinked from the technomancer who first summoned them. These free sprites have chosen to remain behind, roaming the Matrix on their own, developing their own personalities and motivations. Along their journey, they often discover new ways to manipulate the Matrix. Some even develop the ability to open Resonance Rifts at will, and some may even shape where the rift leads. These free sprites do not perform such services for free—they will make deals with those who want to use their abilities. Anyone looking to find passage to a Resonance Realm this way can attempt to locate a free sprite with the ability and make a deal. One of the major obstacles is that it's often problematic to determine what the sprite wants in return. It could be a custom program needed to rewrite its code, but it's equally likely to want a scan of a painting made by some obscure Renaissance artist whose work has never been seen on the Matrix.

## GAME INFORMATION

### ENTERING THE RESONANCE REALMS

There are four ways that a player could get to the Resonance Realms.

- Going through the Event Horizon is the most common route, but this way is only open to technomancers who have undergone submersion.
- Using a Resonance Rift may take anyone anywhere, bypassing the Event Horizon, but rifts are random and impossible to find on purpose. Entering one accidentally also offers no guarantee of ever getting back out.
- Bartering with a free sprite that can open a rift on demand is an option. The sprite may have some control over the rift, but it can be hard to find what a free sprite wants out of the deal.
- Entering the Deep Foundation is technically entering the realms, but it only grants you access to the Reflecting Pool. There is no pathway from here to the deeper realms.

### THE EVENT HORIZON

Traveling to the Resonance Realms this way is only available to technomancers who have

undergone submersion (p. 195, SR6). A submerged technomancer can travel directly to the Event Horizon by clearing their mind and following the Resonance trails to it. The Event Horizon will always present a challenge that must be overcome to pass through it to the Resonance Realms. The details of the challenge are totally at the discretion of the GM. It can be any type of narrative trial tailored to the theme of the campaign and playstyle of the participants, but it will typically be something to overcome, a (simulated) physical task, a mental puzzle, or perhaps a moral dilemma that replays some scene from the character's past. Any hitchhikers who may be going along will not be aware of the passage through the Event Horizon or any trial that the technomancer undergoes, and they will not notice any passage of time while it happens.

If a faster approach is desired, the trial can also be a simple Intuition + Logic + Submersion Grade (4) test with failure resulting in ejection from the Matrix, perhaps with dumpshock. If the gamemaster wants to add some depth to the fast method, or make it a little easier, they can allow a Willpower + Resonance test with hits being a dice pool bonus to represent the technomancer mentally preparing for the trial to pass through the Event Horizon.

The Event Horizon can also be located by an unsubmerged technomancer as part of their first submersion test by traveling to the Deep Foundation and searching for it there. A quest like this should be handled narratively in a manner that suits the gamemaster's campaign style.

### RESONANCE RIFTS

Resonance Rifts will only randomly appear as a plot device of the gamemaster; they cannot be found by looking for one. When a rift appears, it will try to draw in every Matrix icon nearby. A successful Data Processing + Intuition (3) test is required to avoid being sucked into it. As a plot device of the gamemaster, the players will not have any control over, or knowledge of, where a rift will lead before they enter (willing or not). A rift should take everyone to the same realm, bypassing the Event Horizon, and any group that enters a rift together should be able to meet up again in the same Resonance Realm at some point. Being on the same Resonance Realm doesn't mean right beside each other either; the gamemaster can decide the initial distance between each character.

If a submerged technomancer is drawn into a Rift, they can leave their random destination by just traveling to a different realm as per the normal rules. For others, they are at the mercy of the gamemaster for finding a way out of the realms.

## BARGAINING WITH A FREE SPRITE

If a player—or the gamemaster—has some reason for deliberately wanting to travel to the realms by using a Resonance Rift, there is the option of locating a free sprite that can create one. Finding a free sprite with the ability can be as easy or difficult as the gamemaster wants it to be. Once the sprite is located, it will want something in exchange; the payment should be something from the material world that the sprite can't get on its own. It should be difficult for the players to acquire and may be a mini mission on its own. Once the payment is in hand, the sprite will open a rift as per the above rules. The gamemaster will then need to decide if the free sprite actually has any control over where the rift leads.

## THE REFLECTING POOL/ DEEP FOUNDATION

For most Matrix users, this is as close to the Resonance Realms as they will ever get. The Deep Foundation, also called the Reflecting Pool, seems to be intertwined with the Event Horizon as a barrier between the Realms and the Matrix. A submerged technomancer can enter the Reflecting Pool through the Event Horizon in the same way as traveling to any other realm, but hackers and non-submerged technomancers can also access it by going through the Null node of a Foundation host or by locating a Deep Foundation portal in the Matrix as per the rules for **Entering the Foundation** (p. 140). Hitchhikers can enter by riding along with either. Everyone who enters this quasi-realm, by any method, generates a Foundation avatar using the rules outlined in **The Foundation Avatar** (p. 140); even submerged technomancers will use an avatar instead of their living persona. Actions, combat, and taking damage also follow the rules for operating inside a host Foundation with a Foundation Avatar.

One of the key differences between the Reflecting Pool and a host Foundation is that there are no nodes to use. Entry is like waking up in a familiar location; exiting the realm only requires returning to that location and falling back asleep or simply desiring to leave. Instead of a Paradigm, the Reflecting Pool mirrors the real world as it's remembered by those who enter. All of the places and people will be familiar but are not quite exact versions. Actions available are the same as what can be taken in any of the realms, but since the world of the Deep Foundation is a reflection of the subconscious of those who enter, it is also a mechanism for working through personal issues and revealing secrets buried by the subconscious. Ghosts from the past may materialize and confront the travelers, demanding some penance in return for the information sought.

One last and most important difference between the deep Foundation and a host Founda-

tion is that this realm is a home for many types of digital intelligences. Protosapient, e-ghosts, wild and free sprites, AIs, EIs, and even xenosapient like the Null Sect—and worse—can all be found here mixed among the normal Foundation constructs.

## NAVIGATING TO THE REALMS

The old adage, “if you don't know where you're going, you can end up anywhere” is especially true in the Resonance Realms. Passing through the Event Horizon without having a fixed destination in mind will take the technomancer to a random location, but it's more likely to be a realm “near” the Event Horizon. Of course, “near” and “distant” are rather abstract terms when dealing with the Realms. Those that are the most like the real world are said to be “near” and are the easiest to find while those that are more abstract are more “distant” and difficult to travel to.

Navigating to a specific Realm requires a successful Resonance + Intuition test with a threshold set by the gamemaster; failure leads to a random realm. Some destinations will be inherently more difficult than others, with “near” and “distant” being the prime factor. This threshold should also consider such things as how familiar the traveler is with the destination, previous trips being the most important. Having been to a similar realm, having a detailed description about the planned location, or even a thought like “I want to go somewhere I've never been” can all work to narrow down the possible destinations.

When a technomancer wants to leave the Resonance Realms, they will need to navigate back to the Event Horizon and pass through to the Matrix. There is no obstacle or trial at the Event Horizon for making a return trip through it.

## OPERATING IN THE REALMS

Resonance Realms can look and feel very different from one another; the same realm can have a different appearance on different visits. A realm may have any resolution, ranging from a UV host experience indistinguishable from reality to a pixelated, blocky style. Time is also subjective in a Resonance Realm and never matches time in the physical world. A typical trip into the Realms may last a few hours from the traveler's perspective, but that three-hour trip into the Realms could have taken ten seconds, five minutes, or three days in the real world. In extreme cases, a technomancer can be caught off guard when they return to a physical body that is nearly dead from dehydration or other physical conditions while their mind was away. This is a prime reason why many technomancers use a Valkyrie module or some other autodoc bed while traveling in the realms.

Unlike a host Foundation or even the Reflecting Pool, the inhabitants of the Resonance Realms will almost always be free-willed entities with their own outlooks and personalities. Most often they will be wild sprites, but protosapient, bound sprites, EIs, xenosapient and other metahuman travelers may also be encountered. Some may be allies—or enemies—but all of these entities have their own unique personalities and motivations.

Outside of the time variance, the visual appearance, and the occupants—as if that wasn’t enough—the rules for operating in the Resonance Realms are mostly the same as those for operating in the Deep Foundation. Visitors, including hitchhikers and anyone pulled in by a rift, will generate an avatar, but it may be a little different from the ones in a Foundation. Resonance Realm avatars typically take on the appearance of the user’s Matrix icon, but not always. Skill tests to accomplish tasks follow the same rules, as does combat. Stun damage only affects the avatar, but all physical damage taken by the avatar fills the Physical track on the runner’s meat body, with healing and dying functioning in the same way in a Foundation.

One last major difference that travelers need to be aware of is that all the Resonance Realms are on the other side of the Event Horizon and leaving is not as simple as jacking out. Dumpshock from inside the Resonance Realms caused by a jack pulled out or the death of a technomancer carrying hitchhikers is far more severe than normal. In addition to the normal damage, it will always include a comatose state for the individual lasting  $(2D6 - \text{Willpower})$  days, with a minimum of 1 day. In that time, the traveler’s mind re-assembles itself from being shattered on the far side of the Event Horizon.

## USING THE NEXUS PROTOCOL IN THE REALMS

The nexus protocol can be a great benefit to deckers in the Foundation, especially if they are taking hitchhikers along. It also functions in a similar way going into the Realms, at least for the hitchhikers. The base requirements to operate the program are the same (p. 139), but the equipment is set up as a filter between the technomancer and the hitchhikers, not between the hacker and the Matrix. The program provides none of its benefits to the technomancer but actually enhances the interface for hitchhikers further than it would when operating as a filter through a cyberdeck.

Hitchhikers along with a technomancer running the nexus protocol will experience the realms in full UV clarity; the experience will be indistinguishable from reality—even if it’s a very strange version of reality—and in some ways they can even function better than the real world. Hitchhikers use their actual attributes and skills through their

avatar, and equipment functions exactly as it’s remembered to (but all weapon damage is still 3P or 3S). Additionally, their highest skill and attribute ratings are increased by 1 by the program, even if it goes beyond their natural maximums. Characters with an Electronics or Cracking skill also gain a pool of bonus dice to use while here. This pool is equal to the higher skill rating and refreshes each combat round. Outside of combat, a maximum of half the pool can be added to a test. Any test can be augmented this way, as this represents this character’s inherent skill in the Matrix. Damage to an avatar is handled in the same way as it would be without the nexus protocol.

## TASKS IN THE RESONANCE REALMS

There usually must be a good reason for a technomancer to make the trip to the Resonance Realms. Typically, the goal is to accomplish something that can’t be done in the regular Matrix. Finding data that has been erased from the entire Matrix or erasing data from even the most protected archives are a few of the reasons to travel there. Some tasks are much easier—or more difficult—to accomplish in a specific realm, so a technomancer should always do some research and plan a destination. Gamemasters are also encouraged to make up their own tasks within the Realms to accomplish their unique goals.

Tasks in the Realms are rarely straightforward and are often broken down into a series of obstacles or trials that the technomancer must overcome to achieve their goal. The gamemaster determines the number and scope, but they should be weighted by the magnitude of the goal. Typically, they will relate to both the goal and the Resonance Realm being visited. For example, the task Erase Data could require the technomancer to hunt down and destroy all instances of that data, represented by zombies shambling across a post-apocalyptic landscape.

The Resonance Realms are all unique and awe-inspiring places. Don’t simply have the player roll a series of dice and walk away. You should develop the scene and surroundings for the player just like any other encounter. Once a player has entered a realm, describe the sights and sounds taking place around them, detailing the strange wonder of the Realms, and remember the residents will have their own motivations. Encourage interaction with the creatures living in the Realms to accomplish the tasks and even if a player is cornered by some hostile denizens of a realm, it could still be possible for them to talk themselves out of the situation before they continue their search.

## RESONANCE REALM ASPECTS

The nature of each Realm is different, and most are aspected to specific forces, usually along the

poles of three diametrically opposed aspects: Order/Chaos, Growth/Decay, and Discovery/Loss. The aspect of a Realm makes some tasks easier or more difficult to perform while in that Realm. The listed known Realms have the following aspects. Any newly discovered Realms added by the gamemaster can have any set of aspects desired or maybe even reveal new forces.

REALM	ASPECT
Endless Archive	Chaos, Discovery
Tombstones	Decay, Order
The Factory	Growth, Order
Human Malice	Chaos, Decay
Playground	Discovery, Loss
Crooked House	Decay, Loss
Cruft	Discovery, Growth
Kernel Panic	Chaos, Growth
CorpWorld	—

Most tasks may also have an aligned aspect and an opposed aspect. Attempting a task in a realm that has the aspect the task is aligned with will gain two points of Edge for this task; those Realms that have an aspect that match the task's opposed aspect prevent Edge from being used for that task. If a realm has both aligned and opposed forces for a given task, then there is no benefit or penalty.

TASK	ALIGNED	OPPOSED
Locate a Portal	—	—
Atonement	Growth	Decay
Erase Data	Loss	Growth
Find Data	Order	Decay
Find Source Code	Discovery	Loss
Glitch a Host	—	—
Hide a Data Trail	Chaos	Discovery
Recover Data:	Growth	Loss

**Locate a Portal** (Deep Foundation only): A technomancer or other traveler may search the Deep Foundation for the Portal into the Null node of a specific host. The technomancer must have some knowledge of the host to perform this search; the less knowledge they have about the host, the harder the search will be. This portal, once found, can only be accessed from inside the Deep Foundation.

**Atonement** (Emerged only): Once a technomancer's Sprite Rep sinks to a negative number, they may improve it by entering the Resonance Realms to seek atonement from the residents with this task. The lower the score, the more arduous and intricate the task. The level of success will determine the increase in Sprite Rep, but this task will not raise the reputation above zero.

**Erase Data:** This task allows a technomancer or other traveler to permanently remove a piece of data from the Matrix. If successful, the data is eliminated or corrupted beyond repair, no matter how securely it is protected (non-Matrix information, such as hard-copy data or personal memories,

remains unaffected). Erased data still exists in the Resonance Realms and can be retrieved through a Recover Data task, though it is made much more difficult by this action.

**Find Data:** A technomancer or other traveler who knows that a certain piece of data exists but doesn't know where to find it can ask the Resonance itself. The gamemaster determines how hard the data's location is to find, based on its real-world availability. This search may also be used to find or trace a data trail, including one that was routed through the Resonance Realms. Use this with caution—data is an important part of many *Shadowrun* missions, and this should not be so simple that it becomes a default way of gathering data. It should be hard enough to be an option of last resort, not a first choice.

**Find Sprite Source Code:** If a technomancer wants to permanently register a free sprite or ally sprite (see p. 78), the must first find its source code. If successful, a usable copy of the source code is obtained.

**Glitch a Host** (Emerged only, Deep Foundation only): A technomancer can undertake this task to weaken the defenses of a Foundation host in preparation for a hack, or simply seek to disrupt it and create complications. If successful, Resonance turbulence disturbs the host for Resonance x 2 hours. The effects of this disturbance are up to the gamemaster but may include a dice pool modifier for all actions made by the host and its defenses, unexplained program crashes, corrupted data, increased noise, and scrambling of access privileges that temporarily resets ownership status of the host (making everyone an intruder, even the company spider).

**Hide a Data Trail** (Emerged only): A technomancer can undertake a Resonance Realm task to hide his data trail. If successful, any search attempting to trace the technomancer's data trail will be routed through the Resonance Realms and be inexplicably lost for Resonance x 2 hours after completing this task. Any attempt to track the technomancer's physical location during that period finds that the trail simply disappeared without explanation. Submerged technomancers may ascertain that such a trail has been hidden and may still attempt to follow it (see **Find Data** above).

**Recover Data:** A technomancer or other traveler can undertake a Resonance Realm search to retrieve data that no longer exists on the Matrix. Only data that existed at some point on the Matrix since the beginning of the new Matrix protocols is certain to exist, though some technomancers suggest that any data that has ever existed on a computer network or electronic device may be found by visiting the Endless Archive.



# KNOW YOUR ENEMY

POSTED BY: DODGER

- This one needs a little bit of an introduction. As we all know, Dodger is a long-time runner, and one nova-hot decker. We also know he's been working closely with some corporate interests in exchange for access to their systems. I know some people are going to have an issue with him saying much of anything, but who better to tell you how something like GOD works, than one who helped prop it up?
- Slamm-O!
- You mean someone who's getting kids killed because he's too obsessed with finding his fairy godmother? Who the hell invited him anyway?
- Bull
- I did.
- Fastjack

- ....! Jack!
- Netcat
- Holy drek, 'Jack, it's good to see you're still kicking after all you've been through.
- Bull
- Okay, folks, let's keep it on topic. If the man himself invited Dodger to talk about GOD and the nasty new IC out there, we're going to let him speak. As for Fastjack, just know he's doing all right. Can't say much more than that.
- Slamm-O!

## THE BREATH OF GOD

GOD is always watching. In times past, that aphorism was used to instill fear in naughty children and deter would-be criminals with the promise of divine judgment. Yet now, in the Matrix of today, this becomes all the more true. GOD, or the Grid Overwatch Division, hath become a rightly

feared bogeyman, the unseen eyes watching from the darkness. We must be more careful than ever before, if we are to avoid GOD's burning gaze.

- How many rookies has GOD killed or thrown in prison? How much of that was made possible through the upgrades and consultations you provided?
- Bull
- It's all justified, is what he claims. All in search of some AI who disappeared in the Crash.
- Clockwork

Convergence is a rightly feared phenomenon. All of us have had that feeling. As if one is staring over thine shoulder. That this next exploit will be the big one. The final one. One flick of the wrist, one arcane gesture from thy persona, and it is over. Thou art surrounded. GOD has come, raging for revenge, with the devil by his side, come hot from hell. Antique police cars screech to a halt impossibly around thee, and men in drab suits emerge, carrying automatic rifles from a century ago. Thou art surrounded. There is nowhere to go, and it is too late to jack out. There is no escape.

No order is given. No warning or quarter is offered. The men open fire, and in fractions of a second all is black, thy persona is shredded. There are no defenses or tricks left to protect thee. Thy deck is reduced to a smoldering pile of glittering ash, and this cold, dull reality slams back into focus as a hammerblow. Pain as a jagged knife piercing the brow erupts behind thine eyes. Thoughts begin to coalesce on what happened, and the singular thought of escape enters thy mind. They know where thou art and are tightening the noose by the second.

- And that's enough for pure authenticity. As most of you know, Dodger has a certain flair for the dramatic when it comes to how he tends to communicate. In order to maintain any semblance of clarity, I had an agent go through and clean up the rest of the entry to be more in tune with the clientele here at the 'Point. It may not grab every "thee" and "thou," but I think it did a decent job.
- Slamm-O!
- Sir Slamm-O! Thou doth wound me!
- Dodger

This is just one of many scenarios played out every day upon the Matrix. A mournful tale of a decker caught in over their head, making too much noise in a place where such noise was less than welcome. This has been the story of the Matrix since the Corporate Court Matrix Authority gave direct enforcement over to GOD. Ever since, we are forced to be quite a bit more wary in our dealings, as there is more that wishes our demise now than simply IC.

I feel the need to say my peace regarding my actions. 'Tis true I offered my services to many entities, who are often adversarial to our profession, in exchange for access to specific data archives. These archives contain many a pre-Crash record and bits of information surrounding the happenings that followed the disastrous Novatech IPO in 2064. I find these fragments useful, as they bring me closer to finding that which I lost, but I know still remains. Verily, I search for mine Lady Fair, and each day brings me closer. She calls to me from the Foundation, and I will find her there. It is not without risk, though. The Foundation carries within it many a shadow from the elder days of the Matrix. Where I shall find my Lady Fair, I shall surely find traces of the Tree of Lies, among others.

- The Foundation? So he's saying that's where he needed to look all along? Was the Foundation even a thing in the old Matrix?
- Sunshine
- The Deep Resonance has always been a force in the Matrix, even prior to the Crash of '64. Many of the Otaku, or "Children of the Matrix," followed its call, even showing up as early as the 2050s. Unfortunately, its call was impersonated by an AI at the time, who gathered many to its side in an attempt to break free of its virtual prison. Dodger's "Lady Fair" was an AI that stood in opposition.
- Netcat
- An AI? You mean an AI can impersonate the Resonance itself?
- Sunshine
- Not just any AI. The AIs from the previous Matrix were terrifyingly powerful and capable of just about anything they wanted, including creating otaku with a false copy of Resonance. The AIs we see today are sentient beings, but in terms of raw power, they are a shadow of what the AIs were pre '64.
- Netcat
- Wait, so if Dodger's "Lady Fair" is an AI trapped in the Foundation, wouldn't that mean other AIs may be down there too?
- Sunshine
- That's the "Tree of Lies." It called itself "Deus," and while in the Matrix it often took the form of a white crystalline tree.
- Netcat

Know then, that while I didst offer my services, I did so only from a consultative perspective. I scrutinized code, examined processes, and provided a guiding hand in the implementation of GOD. Yea, many of the services hath resulted in a tightening of security, but it is not without an eye for the community of my dear colleagues here. The price of my consultation not only extends to my access to certain databases, it also includes certain addi-



tions to the infrastructure of GOD. Cracks in the monolithic wall, so to speak, if one knowest where to look. These cracks are small, but they offer the sliver of space needed to work around GOD. Requirements made it so they must be small, as to escape the notice of those who work within the confines of GOD.

It is not a question that the Corporate Court Matrix Authority and Ms. Danielle de la Mar have the resources and expertise necessary to run an organization with the oversight demonstrated by GOD. The question is, do they have the expertise and resources to *build* such a thing from the ground up? What was presented to me was simple, efficient, and entirely corporate. As such, it had common deficiencies found in many corporate structures, namely predictability. It was in that predictability where I was able to create some of the loopholes and methods described below to help protect and prepare you for GOD's watchful eye. I may be charged with a quest, but I shall not forget from whence I came, despite rumors to the contrary.

- That remains to be seen.
- Bull

## THE WORD OF GOD

As said above, GOD has myriad tools at their disposal, but convergence is the most terrifying. The mere fact that a hacker could be undetected by a host yet at extreme risk from Convergence is enough to deter all but the most determined.

The scenario described above is one of many ways GOD can use convergence to deal with intruders. It is by far the most common, and the motif of Prohibition-era government lackeys evokes the extreme overkill visited upon criminals of the day. In fact, it is from these instances that the standard GOD decker gets their own icon design, and it has become a sort of uniform amongst them, and the old-time "G-man" has become a symbol of fear in illicit communities, with parodies of them becoming popular with the defiant who thumb their noses at the relatively new authority.

While it has become something of a standard, the G-man icon is not the only one utilized by GOD. Many others exist, most representing some sort of authority figure. A demiGOD dedicated to a single host may adapt their icon to the sculpting of the host, so that their actions present a better fit for the average corporate drone who may be working there. Still others use icons of a completely alien bent, preferring to represent themselves as a force of nature or even a plague visited upon intruder personas.

Verily, other forms of convergence exist as well. Though these are not normally used on any public

grids, the option to do so always exists. Within a host, there is no such need to keep up appearances, thus the alternate forms of convergence would be found more readily in spaces hidden from the public eye. Be aware and on the watch, for these forms may do things such as seize your identity or even your very will.

## THE PATH OF GOD

Contrary to popular belief, GOD is not omnipresent. Protection from the Grid Overwatch Division is still a product and is bought and sold as any other commodity or service would be. Not every host connected to the Matrix is overseen by GOD. In order to have Grid Overwatch authorities present in a particular host, the owner must enter into a complex series of contract negotiations with the Corporate Court Matrix Authority, an expensive process usually only undertaken by larger entities.

Public grids, as they are largely administered by megacorporations through their myriad providers, are all monitored actively by GOD as a standard practice.

Many smaller host operators simply cannot afford the presence of a demiGOD to always monitor for intrusions. To accommodate such a host, the Matrix service provider supports the host as part of a group contract. Something like this would usually entail one demiGOD to service several smaller hosts at once.

Sometimes, GOD is not involved at all. Sometimes a host owner will opt to hire a security spider instead or hire one in addition when a host has minimal GOD presence. While these spiders may not have access to the same tools as GOD and may not take part in convergence the same way, they can still manage host connections and Data Spike every bit as hard as a hacker intruding into their domain. A security spider is limited in what they can detect on their own and is often dependent on the host alerting them to the presence of an intruder. Many burgeoning demiGODs get their start as private security spiders, and their ability to catch and deal with intruders is a prominent part of their résumé.

Physically, GOD is somewhat decentralized. This allows for the Division to operate through many different channels at once. Should one be compromised, there is always another to fall back on. They work from physical office locations, specifically secured from the outside. This security prevents them from working remotely or from the comfort of their home. Such is the price of being part of a multinational corporate watchdog group.

Every triple-A corporation houses a GOD group in their primary headquarters. These are hired on specifically to watch the assets of that corporation. They generally have a core team of

twenty-five to thirty senior GOD operatives and many demiGODs. While they are assigned to a corporate headquarters, they are under the jurisdiction of the Corporate Court Matrix Authority and thus do not specifically answer to the host corporation. Some double-A and A-rated corporations have similar services, but at a much lower level. For corporations smaller than A, the services of GOD come at a premium.

Despite the formidable power of GOD, there are times when a powerful megacorporation would opt to not have a host monitored by them. It could be the host contains information the corporation wishes to keep truly proprietary, such as remarkably new technology or records of shady business deals. The host could be an offline host, only storing data on a hyper-secure, air-gapped machine with no wireless capabilities. Or the host could be set up as a training ground for aspiring security spiders. Either way, it is worth knowing if GOD is present if an extended hacking session is in order.

The job of GOD or a demiGOD is to monitor all incoming and outgoing traffic for oddities that indicate an illegal action has taken place. Only a few small instances can easily be overlooked as garbage data or an error in the protocols and easily dumped. The repeated use of illegal actions eventually gets their attention. The level at which GOD operates is able to break pieces of data down into their constituent parts and search for the types that indicate illegal or exploitative usage.

## DETECTING THE PRESENCE OF GOD

While in a host and having at least user level access, you can make a simple Matrix Perception test to detect if the host is being monitored by GOD. Threshold for detecting GOD's presence is 5 if you only have user access, and 2 if you have admin access.

## BURNING DOWN DIVINITY

Grid Overwatch is a difficult system for older hackers to accept. We grew up in the halcyon days, where the Corporate Court Matrix Authority was no more than a toothless dog sniffing around the feet of its masters for crumbs. It had no way of tracking, as the protocols on which the Matrix of old was founded were a cobbled-together mess of independent networks haphazardly strung together into what amounted to a worldwide infrastructure.

This new Matrix was built from the ground up as a tightly controlled entity with the Corpo-

rate Court's hand holding the leash. They may not know everything that happens on the Matrix, but they certainly know how to police the parts that are important to them.

But knowing this is the key to dealing with GOD. Utilizing pieces of the Matrix considered redundant or superfluous opens up opportunities to operate in peace.

GOD is not infallible. Its eyes cannot be everywhere, at all times. As such, it is possible to make it see something different than what is there, shrouding you from its withering gaze. What we take for granted as the tally of Overwatch Score is a simplified way of looking at a series of complex log entries, tags, and data headers. These are tied to each unique identifying address present in the Matrix, which is how traffic reaches your persona and does not get mixed up by being scattered to every persona in the room or sent to the wrong destination. This data is then re-ordered into blocks of how it was originally sent and brought up to a usable format.

It is through these entries and tags that activities of an illegal nature are tied to a persona that may not even be detected by an active security spider or Patrol IC searching for possible intruders.

When we use the Matrix in our own special way, we do our best to obfuscate these tags, erasing traces or our passage, but the problem remains—we must still have an address at which we receive traffic. This is where we can change how we are perceived.

It is possible to redirect some of this traffic using a spoofed address of another persona in the same host. This can only be done while within a host patrolled by a demiGOD, as at that point all traffic involved shares some mutual channels. Essentially, one is able to send back responses to the host using the address of another persona us-

## NEW MATRIX ACTION: SCAPEGOAT

### (ILLEGAL) CRACKING+SLEAZE VS. FIREWALL+WILLPOWER (MAJOR)

#### Admin

This action allows you to redirect the gaze of GOD temporarily from your persona to another. When this action is performed, if the initiator scores any net hits, their Overwatch Score is transferred to the target persona for (net hits) turns. This action may only be performed while in a host. It must target another persona present in the same host. The host must have a demiGOD. At the end of the final turn, all Overwatch Score returns to its original possessor, and any points gained since the action was successfully performed are added to it. If the target persona is aware of your presence, they may spend a Minor Action to add Data Processing to the opposing roll.

ing their unique tags. This may buy enough time to avoid convergence, as the demiGOD may be otherwise occupied investigating the sudden increase in flagged activity performed by this other user. This is, however, only temporary, as in order to maintain a connection to the host, your connecting device must still send a keep-alive signal to prevent connection closure. Once this signal is sent, the flow of traffic will correct itself, and your Overwatch Score will be yours to deal with once more. The more convincing the spoof of the address you are attempting to emulate is, the more time you will be able to buy in dire situations as you avoid the burning eye of GOD.

## THE IC MAN COMETH

While the frontiers of the Matrix are ever expanding, the same can be said for methods to secure it. No corporation wishes to have their data accessed illicitly, but in our line of work, it is often necessary to access systems and data these corporations would rather we stay out of. Intrusion countermeasures are often the first line of defense after a strong Firewall, which would prevent an unauthorized user from operating in such an environment.

We are familiar with most of the IC used by the bulk of corporate interests, but recently there have been some breakthroughs into new territory. Or perhaps some of these are merely catching up. A few of these “new” forms of IC were coming into widespread use toward the end of the first Matrix. Things such as Cerebropathic and Psychotropic IC were the domain of the particularly twisted, and they were one of the facets of our old home that no one was sorry to see go. Unfortunately, the advent of the cyberjack and the increased understanding of technomancers and their relationship with the Matrix have made it easier for these foul constructs to rear their ugly heads again.

Further, these deeper connections have allowed for a few new types of IC to come into being. Types of IC designed to cause long-term damage, or to take data directly off of our decks.

Not to be outdone, programmers have found ways to tweak existing IC to be more dangerous to the average hacker.

- "Programmers." I'm sure you had nothing to do with these.
- Bull
- 'Tis true, I had a hand in programming some of these features.  
'Twas not my intent to visit umbrage upon thee.
- Dodger
- It's not me I'm worried about. You're so damn focused on the scraps they feed you, absorbed in your search for something

that doesn't exist. You don't care if it hurts anyone else. Look, I miss things from before too. I miss Shadowland. I miss Cap. But that's not bringing them back.

- › Bull
- › Do not deign to tell me what does and does not exist. Wouldst tough not do all in thy power to find those thou loved once again? Didst thou not do so? 'Twas not my fault thou werest too late. I shan't make the same mistake.
- › Dodger
- › You dirty little ...
- › Bull
- › Stop it, both of you. Take your jabs somewhere else. This isn't the place to have it out over your personal business.
- › Slamm-O!

## GAME INFORMATION

Below are rules to use along with the concepts presented in this chapter.

### ALTERNATE FORMS OF CONVERGENCE

Not all forms of Convergence end with the hacker's device bricked, and the hacker dumped. Below are different examples of how GOD can manipulate situations when Convergence is reached. Some of these forms of convergence are only viable on a more advanced host, as such lesser hosts that are monitored by GOD tend to use the standard form of convergence out of necessity.

#### SILENT TRACE

This form of convergence is used when a demi-GOD wishes to not alert the hacker to the fact they have been compromised. When the hacker's Overwatch Score (OS) hits 40, instead of suffering the normal effects of convergence, the hacker's physical location is silently transmitted to appropriate security forces, who dispatch immediately to intercept them. The hacker will also find themselves linklocked if they attempt to jack out. Further, they will not be able to send any information outward from their persona to anything connected to their PAN. It is common for a demiGOD to directly confront such a trapped hacker.

#### COUNTER HACK

This form of convergence is particularly dangerous for a hacker who is acting as overwatch for their team. When the hacker's OS reaches 40, they are link-locked, and any outgoing communications from their persona are intercepted and cut off. The GOD decker then uses the session created

by the hacker to copy their PAN signatures and act as if they have admin access to all devices controlled through the PAN. The devices present view the GOD decker's actions as if they came from the hacker themselves. At this point, to seize control again, the hacker must deal directly with the GOD decker, who has hidden in the network.

### FALSIFY INFORMATION

Sometimes, when a hacker is converged upon, the host administrator wishes for them to get incorrect or otherwise false information. Such is the case with this form of Convergence. When the hacker's OS reaches 40, the physical location of the hacker is transmitted to the host, if they wish to dispatch any security. Any data downloaded from the host for the entirety of that Matrix session is altered to be false, such as a piece of paydata becoming worthless and easily traceable through the Matrix, or cameras automatically looping for the hacker, not allowing them to realize they cannot see a live feed. All new data downloaded is likewise altered in some way. There is no way to obtain factual information from these downloaded files once convergence has occurred.

### PSYCHOTROPIC CONDITIONING

This form of convergence uses similar protocols to Psychotropic IC to instill a specific behavior pattern in the victim. When the hacker's OS hits 40, the hacker is link-locked and assaulted with a massive Nonlethal Biofeedback attack, much like Psychotropic IC. The hacker is hit with  $(\text{host rating} \times 3)$  boxes of Stun damage, which are resisted as normal with Willpower + Firewall. Should the hacker fall unconscious from this assault, they will be dumped from the host in  $(10 - \text{host rating})$  combat rounds. At the end of this time, the Matrix condition monitor for the deck (if present) is filled, and the defender must make a Willpower + Firewall (host rating) test. If successful, they suffer no ill effects. If unsuccessful, they gain the Psychotropic Conditioning status.

### SCORCH

This is a particularly nasty form of convergence aimed at deterring the hacker from ever using the Matrix again in any such illicit manner. When the hacker's OS hits 40, the hacker is link-locked and assaulted with a massive Nonlethal Biofeedback attack, much like Nonlethal Black IC. The hacker is hit with  $(\text{host rating} \times 3)$  boxes of Stun damage, which are resisted as normal with Willpower + Firewall. Should the hacker fall unconscious from this assault, they will be dumped from the host in 3 combat rounds. At the end of this time, the Matrix condition monitor for the deck (if present) is filled, and the hacker will then gain the Scorched negative quality (p. 78, SR6). This quality may be bought off with Karma as normal for a negative quality.

## OPTIONAL Overwatch Score Values

Convergence at OS of 40 is the standard on all public grids and corporate hosts. However, if you want to mix things up, you can alter the challenges on private hosts. For example, a hyper-paranoid secure host might have a convergence value of OS 20, while a less-secure host with an owner who either doesn't care or lacks resources might have a convergence value of OS 60.

Also, using OS as a benchmark is a good way of measuring a host's security responses.

For example, OS 10 causes the system to go on alert and launch Patrol IC, OS 20 triggers active alarm and calls in a spider, and OS 30 launches offensive IC.

## MATRIX SECURITY OPERATIVES

### SECURITY SPIDER (PROFESSIONAL RATING 4)

These are the run-of-the-mill rent-a-cops of the Matrix security world. Whether they are a contractor on hire monitoring the host from a remote location or a direct employee that is on site, you will find these guys in any host an owner cares enough about to spend money on non-automated Matrix security.

#### SECURITY SPIDER

B	A	R	S	W	L	I	C	ESS
3	3	2	2	5	5	4	3	5.9
DR	I/ID	AC	CM					
5	6/1	A1,I2	11					

**Skills:** Close Combat 2, Cracking 5, Electronics 5, Engineering 4, Firearms 3, Influence 2, Perception 3, Piloting 3

**Augmentations:** Datajack

**Gear:** Armor clothing (+2), commlink (Erika Elite), Microdeck Watchman Cyberterminal, Yamaha Pulsar Taser

**Programs:** Armor, Biofeedback, Fork, Lockdown, Trace

**ASDF:** 6/3/4/5 or host

**Attacks:**

Tarpit [Cybercombat, DV 1, AR 9]

Data Spike [Cybercombat, DV 3, AR 9]

Yamaha Pulsar [Firearms, DV 4S(e), 9/9/-/-/-]

### SECURITY SPIDER LIEUTENANT

#### (PROFESSIONAL RATING 5)

Lieutenant spiders are the more experienced security hackers, capable of handling most Matrix security encounters but also able to double as a security rigger. You will encounter them either leading a team or operating on their own in more secure hosts.

### SECURITY SPIDER LIEUTENANT

B	A	R	S	W	L	I	C	ESS
4	3	3	3	5	6	4	4	2.8

DR	I/ID	AC	CM
8	7/1	A1,I2	11

M DR	M I/ID	M AC	M CM
14	10/4	A1,I5	10

**Skills:** Close Combat 2, Cracking 6, Electronics 6, Engineering 4, Firearms 3, Influence 3 (Intimidation +2), Perception 4, Piloting 3

**Qualities:** Hardening

**Augmentations:** Commlink (Erika Elite), control rig 1, cyberjack 3

**Gear:** Armor jacket (+4), Renraku Kitsune cyberdeck, Yamaha Pulsar taser

**Programs:** Armor, Biofeedback, Biofeedback Filter, Blaster-Charger, Fork, Lockdown, Overclock, Trace

**ASDF:** 7/5/6/6 or host

**Attacks:**

Tarpit [Cybercombat, DV 1, AR 12]

Data Spike [Cybercombat, DV 4, AR 12]

Yamaha Pulsar [Firearms, DV 4S(e), 9/9/-/-/-]

### LESSER DEMIGOD

#### (PROFESSIONAL RATING 7)

DemiGODs are the agents working for the Grid Overwatch Division and are the SWAT team equivalent of Matrix security. These are the guys monitoring OS and just waiting to converge on you. They can be encountered out on the public grids, but can also be hired under contract to patrol in hosts.

#### LESSER DEMIGOD

B	A	R	S	W	L	I	C	ESS
3	3	3	2	5	6(8)	5	4	2.1

DR	I/ID	AC	CM
7	8/1	A1,I2	11

M DR	M I/ID	M AC	M CM
16	12/5	A1,I6	11

**Skills:** Cracking 6 (Cybercombat +2), Electronics 6, Engineering 4, Firearms 4, Influence 4 (Intimidation +2), Perception 3, Piloting 3

**Qualities:** Analytical Mind, Hardening

**Augmentations:** Cerebral booster 2, commlink (Hermes Ikon), control rig 1, cyberjack 4

**Gear:** Armor jacket (+4), Shiawase Cyber-6 cyberdeck, Yamaha Pulsar taser

**Programs:** Armor, Biofeedback, Biofeedback Filter, Blackout, Blaster-Charger, Fork, Lockdown, Overclock, Stealth, Trace

**ASDF:** 8/6/7/7 or Host

**Attacks:**

Tarpit [Cybercombat, DV 1, AR 14]

Data Spike [Cybercombat, DV 4, AR 14]

Yamaha Pulsar [Firearms, DV 4S(e), 9/9/-/-/-]

### GOD OPERATIVE

#### (PROFESSIONAL RATING 9)

The equivalent of an HTR or Special Forces operative, GOD Operatives are on call to handle true threats to the Matrix.



### GOD OPERATIVE

B	A	R	S	W	L	I	C	ESS
4	3	3	3	6	7(10)	6	5	1.2
DR	I/ID	AC	CM					
8	9/1	A1,I2	11					
M DR	M I/ID	M AC	M CM					
19	14/5	A1,I6	12					

**Skills:** Cracking 8 (Cybercombat +3), Electronics 8, Engineering 4, Firearms 4, Influence 5 (Intimidation +2), Perception 4, Piloting 3 (Drone Operation +2)

**Qualities:** Analytical Mind, Exceptional Attribute (Logic), Hardening

**Augmentations:** Cerebral booster 3, commlink (Transys Avalon), control rig 1, cyberjack 6

**Gear:** Armor jacket (+4), Fairlight Excalibur cyberdeck, Yamaha Pulsar taser

**Programs:** Armor, Biofeedback, Biofeedback Filter, Blackout, Blaster-Charger, Directional Shield, Fork, Lockdown, Overclock, Rocket Launcher, Stealth, Trace

**ASDF:** 9/8/8/9 or Host

**Attacks:**

Tarpit [Cybercombat, DV 1, AR 17]

Data Spike [Cybercombat, DV 7, AR 17]

Yamaha Pulsar [Firearms, DV 4S(e), 9/9/-/-/-]

## DOMINION RESPONSE TEAMS

Some may be under the misguided hope that escaping the Matrix is the same as escaping GOD's wrath, but this is a false hope. The Dominions of GOD are tasked with pursuing those who escape its grasp within the Matrix, visiting either fiery death or swift imprisonment upon them in the physical realm. Dominions are ever ready for swift deployment from their eyrie, having strongholds secreted within many of humanity's great sprawling cities. Each team is a circle of knights with seven members. There will always be one leader holding the key that releases the Avenging Angel, four fierce soldiers—many of whom follow the mystic arts—a valiant rigger

to guide the team, and of course there will always be an agent of GOD along to make sure the will of GOD is imposed.

## DOMINION SAMAEL TRANSPORT

### (LAV)

The Dominion Samael Transport is a Banshee stealth variant. Standard loadout for the Samael is a drone rack for a pair of Malakim/Ophanim drones—typically one of each—and a turret-mounted Ascalon rail gun. Secondary armament consists of port and starboard HMGs and a forward-mounted rocket launcher.

## MALAKIM/OPHANIM

### (LARGE ROTOR DRONES)

Using a shared quad-rotor chassis design, these two GOD-exclusive drone variants fill different roles in Dominion teams. The Malakim is used for targeted signal jamming, surveillance, and non-lethal suppression. The Ophanim is designed for advanced surveillance of a target and offers lethal offensive options to the team's rigger.

## ASCALON RAIL GUN

The Ascalon is a high-power electromagnetic rail gun using a sabot designed to defeat mil-spec vehicle armor—of course, it's also devastating to lighter targets. The Ascalon uses a proprietary turret system, and due to the massive size of the charging capacitors, it can only be mounted on the largest vehicles.

## GAME RULES FOR DOMINION RESPONSE TEAMS

For the team leader, use the Marine Corps Special Operational Forces profile (p. 208, SR6). The soldiers may use the following profiles in any combination: Renraku Red Samurai, Seraphim Avenging Angel, or Lone Star Combat Mage. Add the Delta Forces Logistics and Support Rigger (p. 207-208, SR6) with the Lesser DemiGOD as support.

In addition to the Samael Transport and the Malakim/Ophanim drones, Dominion Response Teams have full access to GOD's information-gathering infrastructure to help locate their targets. With older Renraku Doves being phased out, general surveillance in most areas now uses mixed fleets of Federated-Boeing Sky Commanders and Aerodesign Systems LSD-64 Condors. Dominion team leaders also have authorization to activate one of GOD's NeoNET Avenging Angels—a hypersonic fixed-wing drone built around a fuel-air bomb capable of leveling a city block—even though none have ever been officially deployed.

## DOMINION SAMAEL TRANSPORT (LAV)

HAND	ACC	SPD INT	TOP SPD	BOD	ARM	PIL	SENS	SEAT	AVAIL	COST
3	60	90	900	18	18	5	5	8	9(I)	2,800,000¥

**Standard Upgrades:** Ceramic plate armor, mil-spec plate armor (2), RAM plating (6), passive stealth features, extra entry/exit points, life safety system (2), 2 x rig-ger cocoons, valkyrie module, ECM (6), integrated M-TOC, and a brig with electro-magnetic shielding, 2 huge hardpoints (large drone rack with +1 extra drone storage, turreted large weapon mount with an Ascalon rail gun [20(c) sabot ammo], and 3 large hardpoints (port and starboard RPK HMGS [smartgun, 500(b) standard ammo] and a forward mounted Onotari Interceptor [20(c) high explosive rockets]).

## MALAKIM / OPHANIM DRONE (LARGE ROTOR DRONE)

HAND	ACC	SPD INT	TOP SPD	BOD	ARM	PIL	SENS	SEAT	AVAIL	COST
3	30	60	280	9	9	4	5 (7)	-	9(I)	250,000¥

**Standard Equipment for Both Variants:** ceramic plate armor, RAM plating (4), passive stealth features,

**Malakim Standard Equipment:** ECM (6), 4 standard hardpoints (small drone rack [3x Federated-Boeing Sky Commanders], Ranger Arms AA-16 [250(c) gel ammo], Armtech MGL [airburst link, smartgun, 50(c) stun grenades], armtech MGL [smartgun, 50(c) gas (Neuro-Stun X) grenades]

**Ophanim Standard Equipment:** Enhanced sensors (2) [adds ultrasound, olfactory, penetrating radar, and x-ray] 2 large hardpoints (Aztechnology Striker [airburst link, smartgun, 9(c) high-explosive rockets], Stoner-Ares M202 MMG [smartgun, 500(b) standard ammo])

## ASCALON RAIL GUN

TYPE	DV	MODE	AR	AMMO	AVAIL	COST
Assault Cannon	9P	SS	15/22/ 15/12/9	20(c)	8(I)	650,000¥

**Note:** Includes a large turreted weapon mount and smartgun system. The Ascalon can only be mounted to a huge hardpoint in a vehicle with a Body over 15. On a successful hit, the Ascalon's target ignores the benefits of its first 2 ranks of mil-spec vehicle armor. Sabot ammo is 500¥ per 10 rounds

## ADDITIONAL TYPES OF IC

### NONLETHAL BLACK IC

## DEFENSE: INTUITION + FIREWALL

The little brother to the much more lethal Black IC, this still wants your brain fried, but it isn't interested in killing you outright. It's often employed by companies in a PR move so they can say they have some sort of moral streak. Nonlethal Black IC leaves you vulnerable in meatspace once it takes its toll. In cybercombat, Nonlethal Black IC does (host rating + net hits) in both Matrix damage and Stun damage. The Program Biofeedback Filter may be used to protect against Nonlethal Black IC.

## PSYCHOTROPIC

## DEFENSE: INTUITION + FIREWALL

A nasty form of Nonlethal Black IC, this is less interested in frying your brain, but more in reprogramming it. Psychotropic IC attempts to knock the user unconscious while keeping them online. If successful, it subjects the unconscious

hacker to psychological conditioning to instill certain behaviors as chosen by the programmer of the IC. In cybercombat, Psychotropic IC does (host rating + net hits) Stun Damage, and forces link-lock. If it is successful in rendering the target unconscious, it attempts psychotropic conditioning, which takes (10 - host rating) combat rounds. At the end of this time, the defender must make a Willpower + Firewall (host rating) test. If successful, they suffer no ill effects. If unsuccessful, they gain the Psychotropic Conditioning status (p. 169).

## CEREBROPATHIC

## DEFENSE: INTUITION + FIREWALL

Another ugly form of Nonlethal Black IC, this is interested in frying your brain to debilitate instead of merely knocking you out. Using protocols to emulate, enhance, and prolong the effects of dumpshock, Cerebropathic IC seeks to cause long-term damage to your brain. In cybercombat, Cerebropathic IC does (host rating + net hits) Stun damage. In addition to the Stun damage, for every 3 boxes of damage taken after soaking, inflict one level of the Cerebropathy status.

## INFECTION

## DEFENSE: WILLPOWER + DATA PROCESSING

This IC attempts to infect a persona with a virus designed either to send out continuous location information or to erase all information on a cyberdeck. When hit by this IC in cybercombat, the victim must make a Willpower + Firewall (host rating + net hits from the attack) test or become infected, gaining the Cybervirus status (p. 169). Each time you're infected, increase the status level by one, but even a single hit will progress on its own if left unchecked.

## ERASER

## DEFENSE: WILLPOWER + DATA PROCESSING

This IC seeks to destroy information saved on your persona, including active programs and any data downloaded from the host. When Eraser IC hits in cybercombat, any data downloaded from the host is destroyed and must be re-downloaded to retain. If there is no such data, Eraser IC completely erases one active running program instead. This program must be reloaded from an offline source to use again. If there are no active running programs, Eraser IC destroys other information that may be stored on the persona at the gamemaster's discretion.

A technomancer hit by Eraser IC who is not emulating a program must make a Willpower + Intuition test or lose (host rating) hours of memory.

## NEW MATRIX STATUSES

These are new statuses available for Matrix-related circumstances.

### CEREBROPATHY #

Black IC has done a number on your cerebral cortex, you are suffering from semi-permanent dumpshock. The number after the status acts as a dice pool penalty on any actions you take. Cerebropathy can be treated with a Biotech + Logic (host rating, 1 day) Extended test, with each successful test eliminating one level of the status.

### CYBERVIRUS I, II, III

This IC infects your device. At level I, the virus begins transmitting your location, increasing your OS by 1 per turn as long as you are connected to the Matrix. At level II, it begins to copy any data on the device. At level III, it triggers immediate convergence, transmitting your current location and sending its data packet back to the host. The virus can be quarantined (device taken offline) and disposed of with a successful Electronics + Logic (host rating, 1 hour) Extended test. A successful test reduces the level of the virus by one. If a Cybervirus is not quarantined and removed, its level will increase on its own by 1 rank every 1D6 hours. It sends any data collected as soon as it is reconnected to the Matrix.

### PSYCHOTROPIC CONDITIONING

This Black IC reprograms your brain. Each instance of Psychotropic Conditioning imposes one of the following behavior modifications. The victim is not consciously aware they have been subjected to this conditioning.

**Brand Loyalty:** Hackers subjected to this must make a Composure (3) test to not impulsively purchase equipment from a manufacturer they see. They will have little to no regard for their savings if this test fails for that piece of gear.

**Whistleblower:** A dangerous version of psychotropic conditioning. Hackers subjected to this must immediately make a Composure (3) test or do everything in their power to reveal their location to a host or physical security by making inordinate amounts of noise for two combat rounds. This is triggered when the hacker attempts to hide from another person using Stealth or a Sleaze program.

**Judas:** A much more sinister form of conditioning than the other two, this forces the victim to send a detailed report to a specified recipient. This report will have names, capabilities, and descriptions of each person they have worked with for the past two weeks. This is triggered thirty-six hours after the conditioning sets in and may be

avoided by a Composure (3) test. This report continues to be sent every thirty-six hours for two weeks, at which point this conditioning automatically wears off.

**Overcoming Psychotropic Conditioning:** A victim of psychotropic conditioning can overcome their behavioral modifications by succeeding at (host rating) consecutive Composure (3) tests when confronted with their triggers. They may also seek assistance in this from other runners who may make a Leadership + Influence (host rating x 2, 1 day) Extended test, with each hit adding a die to the affected player's Composure test.

### IC SPECIALIZATIONS

Not all IC is created equal. Sometimes, the IC on a host is specifically tailored to the specifications of the host architect. Below are special qualities that can be added to any form of IC in order to modify its performance. IC specializations can be stacked and are cumulative.

**Proprietary:** IC with this specification is programmed to recognize technology of a specific manufacturer and deal with it more effectively. Most commonly found in corporate hosts, this modification gives a point of Edge to the host if it is interacting with a device made by the specified manufacturer. For example, if the IC is Shiawase proprietary, and it is being attacked by a Shiawase Cyber-6 cyberdeck, the host would gain a point of Edge in each interaction with this piece of equipment. Technomancers and gear with no listed brand name are considered to have no specific manufacturer for the purposes of proprietary IC.

**Cascading:** IC with this modification gets stronger the longer it remains active. Each combat round after the first, it adds one die to its dice pools. So the round it is deployed, it will act normally with (host rating x 2) dice pools. On the second round, its dice pool increases by 1 to (host rating x 2) + 1, then on the third turn it increases to (host rating x 2) + 2. This continues until the dice pool bonus equals the host rating.

**Quick:** IC augmented in this way are exceptionally lightweight and easy for the host to deploy. As such, the host may deploy two IC with the Quick modification per combat round (the restriction on having only one copy of any form of IC still applies). Quick IC requires the host to divide its processing power; doing so means Quick IC may never gain or use Edge and always grants Edge to its targets.

**Disguised:** IC modified in this way appear to be different from what they are at first glance. Passive IC can appear to be part of the icons they are attached to, but any actively running IC can only be disguised as a different type. They still appear as IC, but their type may be wildly different from what they look like. This disguise may be pen-

trated by a Matrix Perception test performed as a Major Action, but disguised IC adds host rating to its dice pool to resist the perception.

**Hybrid:** Hybrid IC combines the effect of two basic IC (Acid, Binder, Blaster, Crash, Jammer, Patrol, Marker, and Track) types into a single program. The IC resolves its attack with a single roll but must split its net hits between the two available effects. Example: Bloodhound (a hybrid of Patrol and Track), makes a single host rating x 2 vs. Willpower + Sleaze test but must first get enough hits to detect its target. If there are any nets hits left over, it can apply the track effect. Hunter IC would be a hybrid of Patrol and an attack IC such as Blaster, where the IC operates as Patrol until it detects you but then switches to attack mode to immediately engage without the host needing to launch another IC.

**Omnipresence:** IC with Omnipresence is able to engage threats from multiple sources with a single action. Each additional target past the first reduces the effective host rating of the IC by 1 for determining its dice pools and Attack Rating.

**Passive:** Passive IC works in a way that is very much like a Data Bomb. It is attached to a file or device and is triggered when a hacker accesses the icon it is attached to. Detecting Passive IC is a Matrix Perception test; if the IC is disguised, it adds host rating to its dice pool. If detected, the IC can be engaged, suppressed, or otherwise dealt with as normal before being triggered. If not detected, the IC will trigger immediately once a hacker performs any action with the device or file it is attached to. If the IC has a chance to surprise the hacker (see p. 108, SR6), it rolls host rating x 2 and applies net hits as a negative dice pool modifier on the PC's Surprise test.

## IC TYPES

IC	AVAIL	COST
Acid	4(I)	1,500¥ x (host rating x scale)
Binder	4(I)	1,500¥ x (host rating x scale)
Black IC	6(I)	2,500¥ x (host rating x scale)
Blaster	5(I)	1,500¥ x (host rating x scale)
Crash	5(I)	1,500¥ x (host rating x scale)
Jammer	4(I)	1,500¥ x (host rating x scale)
Killer	6(I)	2,500¥ x (host rating x scale)
Marker	4(I)	1,500¥ x (host rating x scale)
Patrol	3(L)	500¥ x (host rating x scale)
Scramble	4(I)	1,500¥ x (host rating x scale)
Sparky	4(I)	1,500¥ x (host rating x scale)
Tarbaby	4(I)	1,500¥ x (host rating x scale)
Track	5(I)	2,000¥ x (host rating x scale)

NEW IC	AVAIL	COST
Cerebropathic	6(I)	5,000¥ x (host rating x scale)
Eraser	6(I)	2,500¥ x (host rating x scale)
Infection	6(I)	2,500¥ x (host rating x scale)
Nonlethal Black IC	4(I)	2,000¥ x (host rating x scale)
Psychotropic	6(I)	5,000¥ x (host rating x scale)

IC SPECIALIZATION	AVAIL	COST
Cascading	+2	+1,000¥*
Disguised	+3	+2,000¥*
Hybrid	+2	+1,500¥§
Omnipresence	+3	+5,000¥*
Passive	+1	+1,000¥*
Proprietary	+1	+500¥*
Quick	+2	+1,000¥*

\*Added to base cost before multiplying.

§ Hybrid adds the base cost of both the base types of IC, plus the Specialization modifier before multiplying.



# MATRIX BUSINESS

The content of this book should make the Matrix an exciting and terrifying ground for your own *Shadowrun* adventures. If you have not already come up with an idea of your own, here are three mini adventures that explore all the dangers of the Matrix with your PCs.

Each adventure provides a Matrix-based plot, without being a decker or technomancer-only story. Of course, the adventure will give those characters a chance to shine, but they purposely do not exclude any other character type. In fact, the truth is any citizen of the Sixth World uses and understands the Matrix, just as real-world hackers aren't the only ones to use the internet. Your old Salish shaman who wears clothes from a previous century and hides in the remotest part of Boulder has been known to put some trodes on to fill out his tax returns or order a few reagents online.

So these adventures are here to invite the rest of the table to consider the Matrix as theirs. If the decker or the technomancer is unarguably the first-class citizen of the virtual world, it should not

exclude from it any other characters. Everyone should feel like the Matrix holds potential for exciting adventures.

## EDGE OF THE WORLD

### HOOK

The team is called to rescue a fellow hacker who is mysteriously link-locked and has become unresponsive. The runners must tour several virtual hangouts to discover what their friend was trying to do. This leads them to the Mr. Johnson behind the run, who will offer them the job their friend was doing: retrieving some forgotten secrets from an abandoned NeoNET host. In this strange place, at the edge of the Matrix, the runners will have to battle savage protosapients while facing one of the nastiest deckers in the world: Clockwork. If they prevail, they may be able to rescue their friend and earn a solid bonus.

## THE JOB

The runners have learned that their friend is comatose and that jacking them out is not an option; they realize they need to figure out what happened. Common acquaintances or activity logs in the deck reveal that their comrade has been visiting a few virtual locations in the last few days. It's time to follow a trail of virtual breadcrumbs.

## BREADCRUMBS

The comatose hacker visited three places before getting lost in the Matrix: the closest to the runners' location is Dante's Inferno, a club he visited in real space. Next are a few virtual bars and hangouts on Hong Kong's grid, which will lead them to a virtual brothel, Nasty Habits. The last is the VR tour of the Cathedral of Notre-Dame de Paris. Investigating each spot will give a clue to the runners about what their comrade was doing, which will lead them to the employer behind the job.

### DANTE'S INFERO

At Dante's Inferno, frequent shadow-friendly visitors have no intel for the runners, but the staff and a few regular clubbers remember their mate trying, awkwardly, to speak to a known party girl. A twenty-three-year-old elf with orange fiber-optic hair, purple leather pants, and yellow tank top, Sirena is all about the dancing until the end of the night, so she'll be in the club almost every evening. She can afford to because her former boss in Neo-NET gave her a huge compensation package when she was laid off after the AAA's dissolution. Of course, the salacious video she took of her boss engaging her in various compromising positions in the conference room certainly helped. She is now burning through the money, which will run out in a few months.

If the runners keep up with her hectic pace long enough, she'll tell (or rather scream into their ears on the dance floor) what she recalls: "... like, totally approached me as I was dancing. I was up for it, but then all discussion was about NeoNET, which really wasn't doing it for me. At least I got some drinks and entertainment out of it. Not a total bust. What was that about?"

"Anyway, he was asking about some defunct host, something about attached devices and files left behind. I just said that I was told the host was wiped before being abandoned. I thought that would have been a disappointment, but your buddy was rather excited about it!"

### NASTY HABITS

If the runners decide to travel to Hong Kong to investigate, they can quickly get to the bottom of

this. After a few talks with the local hackers, they are directed to a virtual brothel called Nasty Habits (see **Hotspots**). Here, they learn that their friend had a long conversation with a wannabe decker, a kid named Blip. He worked at the brothel to get enough money to buy a cyberdeck. Sadly, no one has seen the boy for a few days. Locating his squat, a makeshift houseboat in Heoi, is fairly easy, but all there is to find is a half-eaten (by ghouls) corpse of a fifteen-year-old Chinese boy with a bullet hole in the head.

Looking into Blip will reveal that he claimed to have discovered some strange, abandoned host, "Somewhere in the wild 'trix, dude!" He boasted that it used to belong to an AAA and there was some paydata in it that would make him rich. Canvassing the neighborhood of his hideout, they can get the description of a group of runners (foreigners) spotted around Blip's place at the time of his death. Their contacts can then help identify the team and tell them they are rumored to be working on "something big, a job for a prime runners."

All of this investigation can also be achieved remotely. Local deckers can be contacted online, and Nasty Habits is a virtual brothel. Once they have Blip's safehouse location, their hacker can hijack one of the many drones in Hong Kong's skies to scrutinize the surroundings or they can enlist a local PI or some runners to go check out the spot. Police reports or some of the few nearby video feeds can also yield information about the other team of shadowrunners.

### NOTRE DAME DE PARIS

The last site, the VR host attached to the Cathedral Notre Dame de Paris, is probably the most confusing for the runners. Mostly visited by pious Catholics, often on their deathbed, the Matrix site is a flawless reproduction of the well-known monument. It's quiet and restful. Attentive visitors may notice a famous-looking hunchback discreetly jumping from one hiding spot to another in the ceiling of the grand cathedral (Perception (3) test to spot this Patrol IC). This construct was created by a bored security spider who sculpted the host's IC and decided to use characters from the *Hunchback of Notre Dame* for various icons.

A few members of the clergy are here to pray with visitors, give confessions, and answer theological questions. To learn a bit more, the runners will need to circumvent the language barrier. Few people here are fluent in English. Once set with that appropriate linguasoft or, better, a trustworthy ally fluent in French, the real work begins. At first, none of the people around will remember the runner's friend's persona or someone else asking unusual queries.

However, persistent runners may stumble upon a nice old French man who is spending his last days on Earth entirely away from the pains of his terminal illness. **Gérald Tissier** saw their friend chatting with another visitor, who had a very fashionable persona. The visitor was a tall blond elf with long hair and wearing a very fancy grey suit. If the PCs research the Matrix for this persona or ask their contact (corporate or one involved in magical societies), they will soon learn that this icon is often used by **Louis Belaran**, a M. Johnson associated with the Astral Space Preservation Society (ASPS).

**Note:** If the runners visit this location first, bear in mind that identifying Belaran's persona will take some time; they should explore the other places to gather more information.

## OPPOSITION

If you want to put some action during this investigation, here are a few suggestions that purposely do not reveal too much info before the meet with Belaran:

- Another team of runners tries to kidnap Serena either for a competitor of Belaran (see below) or for her former boss. He is now working for Renraku and means to ensure she stays quiet for good about their affair (a red herring for the runners).
- Blip had a thing for bliss and he racked up a huge debt to the local Triad, who decided the runners should be the ones paying it! As a bonus for the runners, once beaten, the Triads may offer their information on Blip's killer in exchange for their lives.
- A feral protosapient from the wild host where the hacker is trapped has sneaked into the Notre Dame's host and randomly attacks visitors. The runners may need to rescue Gérald if they want to hear his tale!

## MEET M. BELARAN

If the runners do not pick the clue leading to Louis Belaran, he will, instead, contact them (especially if the gamemaster wants to help push the investigation ahead). If they have been too discreet for him to be aware of them, their friend gave him their names beforehand ("in case anything happens to me...").

The meet will be in VR, unless the runners are close enough to Paris for an IRL encounter. If so, they will be greeted by a human male in his mid-thirties, dressed like a fancy corporate magician. Belaran is in fact a specialist in astral work. Anyone who knows him would therefore be confused to see him involved in a Matrix run.

Refreshingly enough for a Mr. Johnson, Belaran is an open book, at least as much as he can

be, saying, "I represent a research company that is looking for a rather intriguing dossier on several potential power sites. This document was put together by NeoNET before its downfall. I find it quite surprising that they spent so much time assembling this list only to never do anything with it. That being said, it's very on brand for them, n'est-ce pas?"

Louis Belaran has reason to believe that the defunct host might still hold a copy of this list, and thus he hired the runners' friend to track it down. The last report Belaran received mentioned a lead about something called the wild Matrix, and he has not heard a word since then.

Mr. Johnson wants to recruit them to carry on with the job "and hopefully rescue your friend." He offers 10,000 nuyen apiece; he has 14 dice in his Influence pool and can go up to 12,000 per runner. He has a few useful tidbits for the runners. The message from their friend is cryptic to him, but describes (in hacker terms) how to reach the wild host. All that remains is to be brave enough to explore it.

He also knows that other factions might be interested. The intel about the defunct hosts came from an information broker, who certainly sold it to additional parties. He also has a solid piece of advice: "Whatever this host is, I would recommend you face it as a team. Remember, your friend was alone, and here we are now ..."

If the runners meet Belaran in person, depending on the agreed location, Clockwork's runners will try to take out their competition right there or just a few blocks away. If not, they will use their contacts to reach out to the runners, pretending to be a Mr. Johnson with a very urgent and high paying job. If the runners bite, they will walk into an ambush.

## IT'S A RACE!

Once the runners have spoken with M. Belaran, the adventure becomes a race. Another team hired by the infamous Clockwork is on the trail of their friend. The hobgoblin has been tasked by MCT to retrieve the list and he, as mentioned above, recruited some nasty runners to help him. Assuming they survived the encounter, the group needs to find a safehouse, and quickly, in order to jump together into the wild host.

If the runners decide to split or let their hacker go alone, then MCT uses their connection or a magic ritual to locate them. Clockwork's runners, if still in the game, lead a brutal assault against their safehouse. If not, MCT pulls some strings and, instead, it's a dozen Yakuza soldiers the runners have to keep away, while their hacker tries to rescue their friend and beat Clockwork to the punch.



## NOT IN KANSAS

Once the runners (or their hacker) are used to the host strangeness (see Hotspots), they will easily locate their friend, who sadly is a prisoner of a bunch of feral protosapients who have been slowly eating his persona, byte by byte. Their buddy, trapped in a cage, is too hurt to help them. The protosapients understand their friend has value and exploit this to lure their victims in. Nearby, there is also the paydata they are here for.

Clockwork's persona, running silently, can also be spotted in the vicinity (he has 16 dice to avoid being noticed). The decker is assessing the situation. If the runners make their move, either for the data or to free their friend, he will use this as a distraction to sneak in and steal the paydata. If he thinks the runners are too good to be messed with, he can be talked into a temporary alliance (each gets a copy of the paydata), but he will try to screw them over if he can.

If a runner's hacker is not alone, his companions are an asset to him or her. They can distract the protosapients, put themselves between Clockwork and the paydata or even take damage instead of their partner. Otherwise, the hacker can enlist the support of its agents (decker) or its sprites (technomancer) to achieve a similar result.

Between the protosapients and Clockwork, the runners may have to choose between getting the paydata or rescuing their friend (especially if part of the team is fighting off MCT goons in the real world). Coming back later for either is not an option, Clockwork will corrupt the file so no one else can have it and their friend will not survive long enough for a second attempt.

If they pick their friend over the paydata, there is one piece of good news: Louis Belaran will not hold that against them. They won't get paid, but there will be no negative impact on their reputation. He might even buy them a glass of wine to celebrate "You and I have not made a buck in this whole mess, but at least, we can enjoy the nice afterglow of doing the right thing. Santé!"

Their friend may be alive, but the injury will prevent any further Matrix endeavors (or sever their connection to the Resonance), a cautionary tale about the dangers of the Matrix.

## HOT SPOTS

### NASTY HABITS

Once a Berkeley-based virtual brothel, ran by a group called the Sisterhood, Nasty Habits migrated its host to Hong Kong in the year following

Crash 2.0. A few core admins relocated there, but a large portion, including some of the founding members, stayed in CalFree. The virtual brothel specializes in bizarre sims and cybersex, with a blasphemous Catholic clergy twist. Far from being a seedy (virtual) place run by the local Mafia, it's in fact a rather sex-positive venue. All the people selling their services here are doing so freely (and keep most of the nuyen for themselves). They all have a genuine passion for what they are offering. And all of them are bigger-than-life characters. Chatting with anyone working here should be somewhat surrealistic and memorable.

Being underage, Blip was not a customer of the place, but sort of an odd-job decker.

Most members of the Sisterhood considered him to be more a little brother than anything else. If the runners make a good impression, the Sisterhood will tell them they are in fact worried about how long he has been away.

## THE WILD HOST

When NeoNET grew this host from the Foundation, they put all their hubris into its virtual environment. Not respecting the norms of the Matrix that they felt belonged to them, they shaped it like a gigantic village where gods and goddesses of classical antiquity could have lived. Between temples so high they touched the skies, the place was littered by statues of ancient divinities, all of them as proportionally colossal. And then came the fall.

All the devices disconnected from the host, most of the files deleted, the location was abandoned and drifted into what is now called the wild Matrix. The virtual environment slowly degraded. The village is currently broken apart, each piece flying on its own chunk of rocks on top of a black void. In tribute to NeoNET's logo, the main color was gold, which has now turned into a cloud of yellow mist overlapping each section of the village. All the buildings and statues are grey, and have started to shatter, losing their resolution and having part of their icons simply disappear.

Gravity, or rather its emulation within the host, is also a mess. Personas can jump any distance from one piece of the village to another, as if there were no gravity at all in the spaces between, while on the ground the slight pull is more like the Moon than terra firma. A persona could easily be pushed from one of the flying islands, falling endlessly into the black void (gammaster's choice as to the consequences and mechanics of this).

One of the largest islands holds a once-impressive temple, now invaded by all sorts of plants giving the impression the building has been taken apart by an unkempt forest. Which it has in fact, due to a bug in the "lifeless" routine of the garden that was only kept in check by NeoNET's spiders.

This is the nest of the feral protosapients. Degraded IC sculpted to look like monsters out of a cheesy sword-and-sandal trid, the feral protosapients look like twisted hydras with twitchy icons, weird half-disembodied cyclopes, or unexplainably flying sirens with blank faces and huge mouths to both sing and devour. Stuff of nightmares.

The paydata is hidden inside a sacrificial altar. To access it, one's persona needs to physically touch the construct, which is now exposed to the outside (the temple no longer has a roof). The protosapients, however, always pay attention to it and are ferociously territorial about it. Part of their original coding was to defend this data trove, and their aggressiveness explains why NeoNET cleaners simply gave up on deleting those files.

Their friend is trapped inside a metal cage, sitting on the steps leading to the temple. Most protosapients in the village have a direct line of sight on the cage. Freeing the hacker will require defeating the cage (which has the same stats as the other protosapients in the area), which will retaliate by sending a few strange, slow-moving but deadly thunderbolts toward its assailant.

The wild host has a rating of 6 and the protosapients use the stats of cyberwolves (see p. 104).

## WHO'S WHO

### CLOCKWORK'S TEAM

Ideally, you can swap these runners with a team your PCs have already faced and hate. If not, here are a bunch of nasty bastards. Their leader, **Brank**, is a dwarf decker, who loves grenades as much as his Ares Predator. He has not lost a single minute of sleep after putting a bullet into a fifteen-year-old (Blip) and cares only about getting the paydata (use Dwarf decker, p. 84, SR6, but boost Firearms to 6 and add Pistols specialization, Athletics 4 with Throwing specialization, the Biofeedback program, a pair of Ares Predator, and two regular grenades). **Engel** (use Combat Mage, p. 82, SR6), an elf who pretends to be a chaos mage hiding his addiction to blood magic with a bad blend of gothic/emo look. Second-rate cyberware has eaten the soul of **Mercy** (use Street Samurai, p. 87, SR6) a troll who is now, ironically, without a shred of mercy. **Overdrive** (use Rigger, p. 86, SR6), a novacoke fiend, addicted to VR, loves speed. The skinny human will push whatever vehicle is used for the run to its limits.

When they ambush the runners, they will choose a drive-by approach, using a muscle car to get close, then they will hit hard. Brank will toss a grenade and Engel will cast a Manaball while Mercy lays heavy fire on the group. However, they will flee right away, assuming the runners are either dead or convinced to stop their run.

## NOTES

- Purposely, the adventure is not located in a specific city, so you can adapt it easily to your campaign.
- While trips to Hong Kong or Paris are possible, they are not mandatory. The Matrix links the runners to the rest of the planet, so they should be encouraged to explore making virtual connections. Even a mage can put some trodes on to have a chat with a contact's source on the other side of the planet.
- If you prefer to start the run with the meet, Belaran can track down the runners at the beginning and task them to find their friend. Mr. Johnson won't have the path to the wild host in this case, but Blip gave copies of his data about it to a mate among the Whoampans who will contact the runner and offer to give them the information if they agree to avenge Blip's death.

## MARIANNE'S NEURO(N)SIS

“One gets rid of a neurosis, one doesn't cure oneself.” —Jean-Paul Sartre

### HOOK

Since 2077, France's government has depended heavily on the infamous Marianne Matrix system, which itself relies on a distributed network of data centers, nicknamed the Neurons. Those are scattered all over the country with their entry points generally hidden in some rather awkward places.

### CORPORATIONS AND THE MATRIX

Any corporation uses the Matrix in anything they do. However, they do not all have the same level of trust, and they don't use it in identical fashions. So whenever the runners are going into a corporate host, that host should reflect the company's strategy. Here are some examples:

The French Touch is a consortium of A and AA French corporations united by a protection pact at the end of '70s to help them survive the Megacorporate Audit. Back then, they began to share Matrix infrastructure, always with this defensive objective in mind. This has led them to have a cumbersome host network, where one hides behind another. And because they are a loose coalition of sometimes competing companies, this labyrinth of nodes can be quite chaotic and inconsistent (product of too many compromises). It also seldom has secrets of members (they don't trust each other that much), but it contains a good amount of intel on megacorporate operations at all levels. Indeed, the French Touch is still very much acting from a defensive posture and gathers a lot of information on potential attacks against their assets from others.

Another example is Aegis—the corporation loves its secrets. So when the new Matrix protocols were released in 2075, they immediately leveraged its file archive features. Which also means that their host fiercely protects the Foundation's portal with nasty IC and an overwatching spider. And with the increasing issues with the Foundation-based Matrix, Aegis is migrating their data to hardware storage as quickly as possible.

For a megacorporation like MCT, the Matrix is a powerful tool that needs to be dominated and controlled, but it also has potential for growth. Keep in mind that MCT was one of the first to make deals with the Null Sect (in order to get their hands on technomancers). Their host defenses are ruthless, and their deckers patrol the Foundations, using anchors (see p. 144) to fix the paradigm so they can turn into their own turf where they can track down intruders in a deep run.

So when designing the Matrix section of a mission, give a few minutes to think about the relationship between the Matrix, the corporation who made a particular host, and how their culture shapes their Matrix architecture and strategy.

The runners are hired to sneak into one of the Neurons and deploy a specific program designed to eliminate some malfunctioning IC. Their mysterious employer does not tell them more. Once inside, however, the group discovers the targets are, in fact, Null constructs, and the program they were given cannot accomplish its goal. To save the Neuron from being infected and finish their mission, they'll need to go to its Foundation to regain control of the system. If they don't, their nefarious Mr. Johnson, who turns out to be an AI called Angeus, will make them pay dearly ...

### THE JOB

The runners meet their Mr. Johnson in a virtual bar. He is using a nondescript icon, coming from a silent-running device that will soon disappear from the Matrix. He hires them to sneak into one of Marianne's neurons, the data center A2-45B, to deploy a mysterious program that requires it to be physically jacked into one of the devices running there. He explains the program will not harm or impair Marianne's functionality, but rather correct a defect by deleting a set of malfunctioning IC. He will not explain why this must be achieved in a shadowy manner. However, he points out that the payment will depend on the success of the mission (fixing the issue) and not only plugging in the provided data chip. He will double the price, if he needs to, to convince the runners, and he can also organize transport of the team to France. They can't contact him, but he implies he will be monitoring the operation closely, and that he has all the access needed to verify that the job is indeed done.

During the encounter, Mr. Johnson seems cunning, cold, and manipulative. The runners should

come out with shivers, feeling that he has not lied to them but that he is certainly hiding a few facts and will have no qualms about throwing them under the bus if they fail to perform.

## MULTI-PASS!

Using the information provided on the Neuron (see *Hotspots*), let the runners come up with a plan to sneak into the location. The physical security should deter any kind of frontal assault, but they can use discretion or deception to get in.

One option is to pretend to be a group of workers from Dassault Réseau & Télécom arriving to work on the construction. This cover, however, will have a limited time window—there are only a few hours before another laborer team appears or someone realizes their credentials are forged.

Getting into the data center should be a tense part of the scenario for the players, but in the end it will be rather uneventful. As long as their plan is sound and executed properly, the runners will get to the data center unharmed and without triggering any alarm (even if they don't know that's the case). Once inside the data center, the runners will not encounter anything more dangerous than automated cleaning drones and those will ignore them.

Once inside, their decker can open a backdoor into the server in order to deploy the program from the physical device the group plugs in (note: the Neuron is inside a Faraday cage; see *Hotspots*). This is a nice chance for the hacker of the group to have their moment, so feel free to add some extra steps, like locating a specific part of the host, defeating or dodging IC, before finally being able to use the program where it is required. Two important details: As the hacker explores the host, they should notice that some IC have a weird glitch in their icons and that some strange vines are oddly part of the VR environment. The closer they get to where they need to be, the more those are present.

To keep the other runners on their toes, have the cleaning drones drop by their location to dust the floor or maintenance drones removing some defective hardware nearby (and then come back to deploy the replacement). If you want to put more pressure on the team, have unscheduled sensor sweeps being performed by creepy-looking drone swarms or even an HTR team.

Just bear in mind that the adventure does not stop there, and the runners need to be able to join their hacker in the Foundation for the next part.

## THE PÂTÉ HAS HIT THE FAN!

Once the program is deployed, everything goes wrong. The host goes into red alert and fires up more IC. Even if the hacker is not immediately

spotted, they get to see, with horror, that a Null Sect Overseer (p. 112) appears and immediately deletes the program they've deployed (while also corrupting any other copies they may have).

From there, the runners need to decide what to do. The program has clearly failed, so they could decide to go down into the Foundation (maybe to fix the program or simply remove it from the faulty IC). If they don't come up with this plan or simply decide to bail on the run, Angeus appears to them (using the same persona as before) and orders them to go to the Foundation to finish the job. He will first offer a bonus, but quickly resort to "do it or else."

If they don't comply, the AI shows them a dossier he has compiled. Thanks to Marianne's system, he knows a lot about the runners. He may even have enough to have them arrested, or more ruthlessly, he can share a live display of a sniper drone targeting one of their friends or relatives.

## THE FOUNDATION

The Neuron's Foundation paradigm is the re-enactment of the horrors Deus perpetrated in Renku's arcology in 2060 (see *Hotspots*). The runners' avatars are simple survivors trying to navigate the building and dodge the drones and agents of Deus. However, as long as they respect the paradigm and steer clear of the Null node, they should progress safely.

As much as possible, let runners decide how they want to finish the job. Maybe they want to reach the security node to delete the faulty IC or go to the Archive node to restore the program Angeus gave them? Maybe they come up with a better idea! If the runners are clueless, Angeus will instruct them to go to the Security node and simply delete all the faulty IC. (Off-screen, Angeus will use the runners' intrusion as a distraction to perform some other action that will free, for now, the host of the Null Sect's code vines.)

Whatever plan is set in motion will work, but the gamemaster should make the trip to the appropriate nodes be as creepy and difficult as possible. Once they are where they need to be and set their plan in motion, the overseer appears to defend his domain. Depending on the runners' strength, you can decide that they have to defeat the construct or simply keep it at bay for a few rounds (until the faulty IC is erased).

## BACK TO THE REAL WORLD

Even if the runners end up spending days in the horror of the SCIRE under the reign of Deus, mere minutes will pass in the real world. If you want to add to their misery, have an HTR team deployed to the site to arrest them, forcing the runners to fight their way out, or have them awake where they were and they can sneak out unnoticed.

Assuming the team performed their mission correctly, Angeus pays them what was agreed upon through a wire transfer, but they will not meet the AI again. If they try to keep up on what happens to the Neuron afterward using some very informed contacts, especially ones with potential ties to France, the contacts can tell them that the Neuron seems now to “operate within expected parameters” (or it has been taken offline, if the runners failed).

## HOTSPOTS

### MARIANNE'S NEURON

Neurons are set up in remote, odd places, far away from prying eyes. They rely heavily on automated security infrastructure and, once finished, require very little interaction with the outside world (no delivery, no guard rotation, that sort of thing, just the occasional hardware shipment and inspection). The Neuron targeted by this run respects those guidelines. It is, however, still under construction. Bouygues construction (owned by Saeder-Krupp) has been contracted by the French government and is, as discreetly as possible, finishing the job (with the usual amount of tardiness to this industry).

Once the installation is completed, the place will be almost completely sealed from the world. Fortunately for the runners, it is still under development. This means that there are still a few workers, technicians, and specialists going to the site. Of course, the locations of Marianne's Neurons are strictly confidential, so those visits are few and highly monitored. Observing the facility and discreetly tailing those teams will yield some valuable information.

The site chosen is the blockhaus WN60 on Omaha Beach (in Normandy), near the American cemetery. Proximity to the ocean provides sea water to cool the small nuclear reactor powering the site, as well as providing a secluded location. While this was a tourist place a century ago, the Awakening has brought its fair share of dangers and mysteries (read: rumors of ghosts of WW2 soldiers) causing the area to be rarely visited. The nearest inhabited village is at least twenty kilometers away.

The complex has been closed off, using false claims that the bunker's structure has become unstable and needs to be repaired. Only five guards are on site, hidden, but a swarm of a dozen security drones from Dassault, the Cerbère-15a (use Cyberspace Designs Dalmatian, p. 301, SR6, with Pilot 4 and equipped with Uzi V SMGs) are discreetly patrolling the area (while running silently). The edifice has heavy and ancient walls, acting as a natural mana barrier (rating 6).

However, once the runners are inside the bunker they can easily get to the main (and unique) server room at the bottom of the building without any interference. The only thing that moves is

the occasional maintenance drone, and those ignore them unless prevented from doing their work. The entrance of the server room is secured with a maglock (rating 6), but the camera to monitor the door is yet to be installed.

Behind this door, the runners will discover a huge chamber filled with racks of servers connected by numerous cables crossing in all directions, giving the place a sort of jungle feeling. At the center of this plastic forest is the main access port, the physical device the hacker needs to connect to. The room is a Faraday cage, so it's impossible to hack remotely; you have to be in the room to enter the associated host (or connected by wire to one of the Matrix administration systems used by the government to run Marianne).

Note that astral space is slightly distorted (a low mana ebb), giving a taste of ashes mixed with rotten grapes to the visitor. The amount of electricity and computational power, combined with the heavy history of location, explains this. The Resonance is also twisted and feels strange to technomancers (without game penalty).

### NEURON'S VR

The host associated with this huge data center uses a depiction of the Louvre in Paris. It's a very patriotic and solemn rendition of the edifice that seems very massive, more than it actually is, so that visitors are humbled in front of it. The French flag and its three colors (blue, white, and red) are a constant theme. All exhibits in the hallway are allegories connected to Marianne (the symbolic representation of the French Republic, not the Matrix system), where she is often portrayed protecting people and unifying metahumanity. Yes, including orks and trolls. Every soldier, and every statue, wears a tricolor cockade, and at any time one can hear “La Marseillaise” in the background. Despite all the pageantry, there is a pervasive feeling of dread; the skies are leaden and feel oppressive. In fact, it's a sign of the server being slowly corrupted by the Null Sect.

The main function of these Neurons is to analyze and sort the data assembled by Marianne. The system constantly monitors Paris through every possible angle and gathers an incredible amount of data to be studied and cross-referenced. Each of the parts of the Louvre relate to one type of such examination: Richelieu's wing compiles findings that hint at threats to national security, Denon's wing collects statistics useful for social safety and healthcare, and Sully's wing processes information helpful for administrative checks.

When a hacker enters it, they appear between the Arc de Triomphe du Carrousel and the Pyramids.

All the IC look like soldiers of France's Republican Guard, a part of the Gendarmerie National in charge of safeguarding the Elysée. Here they are

wearing outfits from another century, reminiscent of the Revolutionary and Napoleonic eras.

The portal to the Foundation is the inverted pyramid located beneath the Carousel. It's always protected by Black IC in the form of a guard with a deadly cannon next to him. When the hacker gets there, they will notice that the underground part of the Louvre seems to be infested with thick, strange vines that do not really fit with the rest of the environment.

Host Rating: 8 (direct access to the Neuron's hardware gives a free backdoor).

## SCIRE: NEURON'S FOUNDATION

The paradigm of this Foundation is a recreation of the infamous Renraku Arcology under the nightmarish control of the crazy AI (most likely an echo of Angeus' own partial recollection of it). So the team will arrive in a retro-looking building of the 2050s, where everything is both pristine and covered in blood, guts, or bullet holes. The Renraku logo can be spotted at each corner, despite the constant blinking lights. Air has a heavy smell of decaying flesh and gun smoke.

Here, the data trails are simply the elevator shaft connecting every floor. Trying to reach another level without using those is not possible, and exploring the current one will give an impression of a seemingly never-ending labyrinth. The inhabitants are split between Deus' allies (crazy otaku, reprogrammed residents, and of course a horde of weird and creepy drones) and the survivors (including Red Samurai attempting to protect civilians). The visitors belong to the second group, meaning they need to act like them, running away from danger, struggling to escape capture and cope with the insanity and horror surrounding them as well as the ruthless malevolence of Deus. Any other behavior will challenge the paradigm and cause variance.

Escaping the place will mean locating the **Portal** node, which is fairly easy, because it matches the few options you have to get out of the SCIRE (monorail track going through the mall level, any helipad, or traveling via sewers from the Underground—all are portal nodes). The **Archive** node is an entire floor dedicated to frozen food storage. It's a creepy area with walls of shelves filled with cans and goods as well as hanging animal carcasses (note that there was no such facility in the actual SCIRE). The **Scaffolding** node is a gigantic production line, spread across several levels and still running at a frantic pace. The **Device** node is an office level, complete with state-of-the-art terminals (but remember it's the 2050s in here). No one uses those, but they are nevertheless performing tasks, blipping and making weird, old-fashioned computer sounds. The **Security** node can be reached wherever there is a security control center.

However, all such centers are monitored by Deus' allies. The SCIRE has several hospitals, and all give access to the **Device** node. This is where Deus turns otaku and inhabitants into its pawns, with a chemical-heavy brainwashing process, completed with some extra cyberware. Screams of pain, walls covered in blood, and noise of surgical sawing make those medical wards the stuff of nightmares. The **Null** node is obviously the entire Matrix system of the SCIRE. Jacking into it gets anyone very close to it and gives the option for Deus (or the Nulls) to simply push the character into the node.

Note that this is not a perfect recreation of the SCIRE under the thumb of Deus. Feel free to improvise or add any detail you wish. As long as it's a labyrinthic, dystopian building where almost everything wants to kill or maim the runners, you're in the ballpark!

## WHO'S WHO

### ANGEUS

Angeus is a complex entity who has been manipulating France's destiny since the release of Marianne's project in early 2077. The AI itself was born during the madness of the Boston lockdown back in 2076. A French official, Angélique Rouge (see p. 94, *Lockdown*), under the pretense of performing training, got trapped in the city. She was there to secretly ask for Celedyr's support in the upcoming presidential campaign. Indeed, her battle against the abuses of the corporate world in the city of Lille has made her a popular hero, giving her a chance to sway the vote away from Yohann de Kervelec. But then the lockdown happened, and soon after she became infected by CFD and fell into a coma. Angélique was spirited out of Boston to be brought back to France and displayed in her sad state, and Kervelec propped himself up as the one who rescued her, blaming the "enemy of the nation" for her demise. This helped his own failing campaign as the narrative made him "the one vote to continue the fight Angélique started." Unbeknownst to the dwarf, his actions of returning Angélique's body to France opened the door for Angeus to escape the flesh prison that created it. And from there, Angeus entered the new super system of the Marianne project when it went live.

Angeus, an entity made of fragments of Angélique's psyche along with shards of Deus and Cerberus (similar to Cereus, see p. 213, *Lockdown*), began leveraging Marianne's "all-seeing eyes" to discreetly manipulate France's destiny ... until the Null Sect began infesting the Neuron hosts. The AI is now waging a secret war to save Marianne from being entirely taken over by them. On the bright side, this keeps Angeus from continuing scheming to control France's government,

but it likewise means that the whole Marianne system, which has become critical to the country's daily life, could be compromised. Marianne's administrators are aware of the infestation, though they are powerless to stop it.

Note that Angeus is anything but a nice guy in this adventure. While it thinks it has the best interest of the French people at heart (remnants of Angélique's personality), it had no qualms butchering prominent members of its nobility (disguising those crimes as a series of strange accidents) for the greater good. In fact, Angeus is behind other, even more questionable endeavors. From Cerberus and Deus, the AI inherited a Machiavellian level of plotting and manipulation. All of this means that the runners may have a hard time deciding if helping Angeus is really the right move here, or if they need to try to block it somehow.

## THROWBACK

### HOOK

The team is sent to Berlin to sneak into a drug workshop held by, well, Nazis. The runners believe they need to retrieve some throwback tech from the '50s for their secretive employer Aegis. However, as they find themselves closer to their goal, things get complicated when they have to fend off a powerful AI that considers the cable-based Matrix of Berlin to be its personal playground. Will they survive to tell the tale?

### THE JOB

A brief meet with Mr. Johnson sets up this job. The man is a nervous ork, hiding his face as much as possible behind his fedora, sunglasses, and a red scarf. The place is an inconspicuous and very seedy bar near the docks. Not a shadow-friendly place, rather a smelly joint for dock workers to get wasted. The client has a strange accent, difficult to place, but probably eastern European. The job is kind of odd. The runners are asked to go to Berlin, in one of the so-called alternative districts, Marzhan, to perform a datasteal. That's not the weirdest part—the peculiar aspect is that the tech is old, even ancient. It's an experimental processing unit from more than twenty years ago. Apparently, it has been overlooked, and Mr. Johnson has its location and thinks it still has some value. He offers 10,000 nuyen apiece, which seems pretty fair for the job. And, if needed, the Johnson has a coyote on call to get the team to and from Berlin. The mission is three to five days tops. But it must be performed ASAP, as the client suspects other parties might be aware of this forgotten treasure.

## LEGWORK ON THE 'HELL VILLAGE'

Doing some legwork about Berlin and the target location is challenging. Since '72, the city has indeed been (sort of) reunified following a power move from Saeder-Krupp, and it's now part of the German Allied State. However, it's an intricate coalition of districts, some belonging to corporate authority (sometimes entirely, like Tempelhof, the HQ of Saeder-Krupp, or Prenzlauer Berg, nowadays called little Chiba and thoroughly belonging to Renraku), and some are dubbed as alternative districts. Which means they are vaguely self-organized, living more or less in harmony with other neighborhoods. The one targeted for the job is described as the "Hell Village." The local take on neo-anarchism here is survival of the strongest and rule by fear. Until his death, the Vory kingpin Pjotr Gargari kept most gangs under control with a savvy mix of terror and diplomacy. Since then, it's been a war zone. The Vory are devoted to the new leader, an elf woman called the Drackova, who battles with the remaining Gargari loyalists, while the other gangs settle over fifteen years of brewing conflicts.

To make matters worse, the target location is inside the remnants of the industrial park of Herzbergstraße, where both illegal drugs and knockoff weapons are being made. This means that the underlying water table is quite polluted with iron and additional toxic chemicals (making it an excellent nest for toxic shamans). Until recently, the Vory had complete control over all of those operations, but now they've been carved up between several local actors. The site Mr. Johnson wants the team to infiltrate is a former, large metal construction workshop along the Rhinstraße.

If the runners really invest time and resources into legwork, they can learn another piece of information their client has purposely kept quiet. In a gambit to restore some kind of order to Marzhan, the council of Berlin has agreed to turn one of the numerous gangs into an alternative police service. It's a common practice in alternative districts, where regular security corporations like the Sternschultz or Neo-PD generally fail to perform. The city simply puts a local militia or gang in charge of police duty. For instance, in the Emirat, a part of the district of Kreuzhain under Sharia law, an Islamist gang named the Jihad-B has much power. And here comes the twist.

In Marzhan, it's Manfred Stahl's *Neue Faschistische Alternative* (NFA) organization that has been nominated to such power. And yes, those people are exactly what one would expect them to be: modern-day Nazis. And guess which part of the Herzbergstraße they recently took over? So, once in Berlin, the runners will have to face a bunch of trigger-happy crazy Nazis, lording over a drug

workshop, mass-producing a cheap alternative to novacoke while also serving as the legal local police force. Isn't that swell?

## THE SECRET WAR

Sadly for the runners, the NFA is not the real twist of the story here. The runners are about to become active targets in a secret war being waged for the control of Berlin's old, cable-based Matrix infrastructure. Indeed, many hardware devices and networks, dating back from before the wireless Matrix, still exist and have been repurposed a lot by the inhabitants of these alternative districts.

But one actor in the shadows has been working for years to get its hands on as much of this infrastructure as possible. It's a powerful AI from the '50s that very much depends on this computing capability to survive and grow, and it's called APEX. It has already secured this location, and the runners are about to unwittingly become the AI's enemies.

## THE TRUTH BEHIND THE JOB

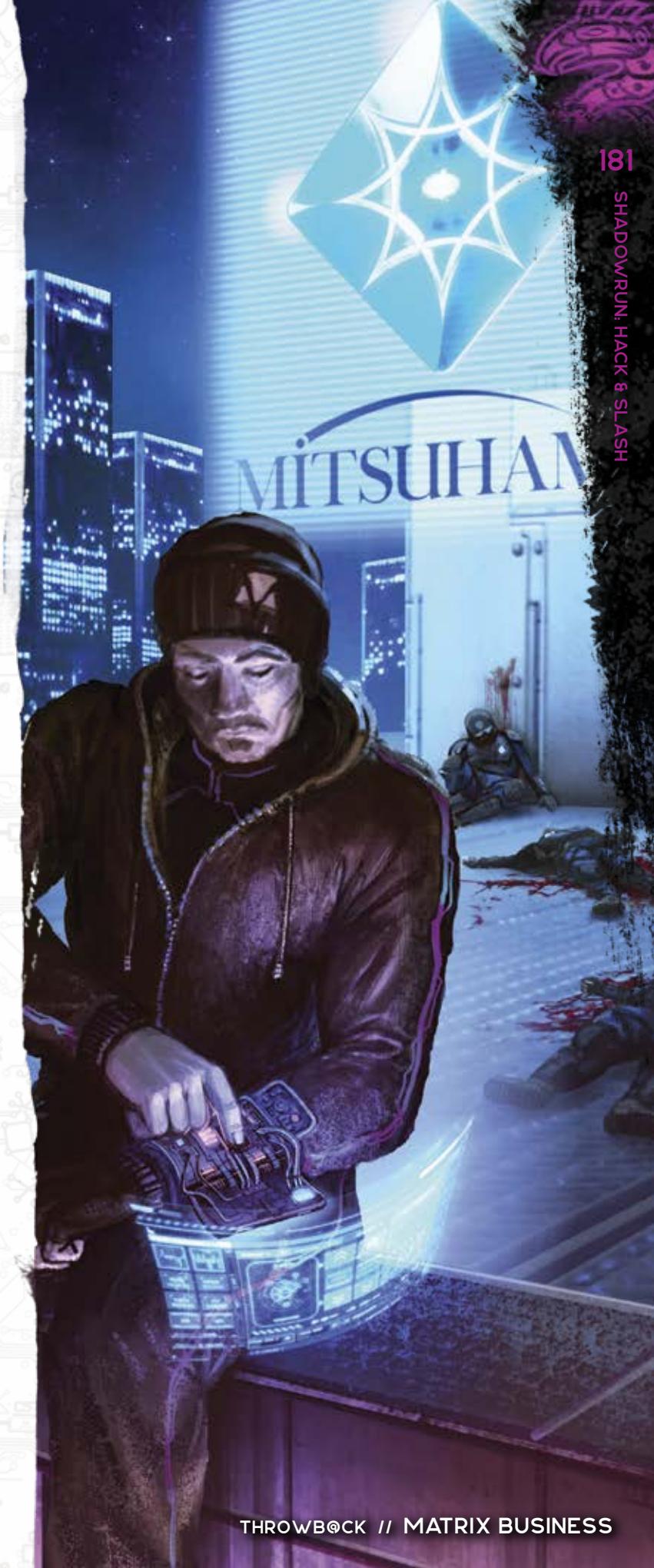
Because the NFA serves as a police service in the Marzhan (alternative) district, Manfred gave some kind of fake operational reports about his take-down of the drug activity to the city of Berlin. In this half-assed series of poorly written and barely organized documents, some smart people noticed two things: First, there is no indication of any subterranean installation. Second, the energy consumption of the building is slightly higher than it should have been, provided the supposed occupancy level.

As already mentioned, old hardware of the previous iteration of the Matrix is a valuable commodity in Berlin, and some info broker started spreading the word that there might be some hidden under the Herzbergstraße area. It was an educated guess, but a good one.

Indeed, for a long time now, even before the death of Pjotr Gargari, APEX's intermediaries made a deal with the Vory to get access to the neglected data center beneath their drug workshop. The AI knew that a long-forgotten subsidiary of Fuchi had some secret labs, where they could operate on weaponizing a few nasty Matrix viruses away from prying eyes. With the fall of the megacorporation and the corporate mayhem that followed, plus Crash 2.0, almost all traces of the location's existence and goal have been lost. The AI's allies, led by an old decker called Blitz, quickly repurposed the hardware and established a link between this data center and the rest of APEX's network.

## WHO ARE THE RUNNERS WORKING FOR?

The runners' employer is Aegis Cognito. The man who hired them is actually one of their agents.



The organization is one of the few entities that had knowledge of Fuchi's old lab in Berlin, but they didn't know its exact location until now. To them, whatever is left of the previous research is a data trove. Even if the viruses themselves are most likely useless, a lot of highly classified material and data from Fuchi may still be there and would help their agency resolve mysteries from the past that will certainly lead to some actionable intel. Sadly, they are unaware their prize is long gone, deleted by APEX.

Why did Aegis hire the runners rather than a local team? Because it would have been difficult to find one willing to visit Hell Village. Aegis knows that Berlin is an intricate network of alliances, and the organization has legitimate concerns that someone would tip off the NFA or potential competition about the job.

## AND NOW WHAT?

This adventure is pretty open-ended. Once the runners find their way around (or through) the NFA soldiers and into the secret lab, they are faced with a puzzle. All the hardware is still active and actually running hot. It's wired to the wall into an intricate, old-fashioned network that connects to some different cable-based infrastructure leading to some other area of Berlin. The original firmware and data have been completely wiped, and whatever is executing now is not making any sense.

Their client wanted the data, so that's a failure, but if the PCs manage to bring back the hardware, maybe part of it can be retrieved. The servers are not too large, and they need to be properly unplugged to avoid even more data corruption and moved into a vehicle as big as a small truck. And, of course, depending on how loudly or not they came in, the runners may take all the time in the world to organize that or need to bug out immediately.

Unbeknownst to runners, APEX is aware of their intrusion and has Blitz send his most trusted and dangerous team of runners to get rid of them. It will take them less than one hour to arrive, so the runners have a chance to move away from the location and not be simply trapped inside the lab. APEX has instructed Blitz's team to kill all the runners, even if it means blowing up the datacenter.

If the runner hacker is plugged into the system, use the opportunity to describe an incredible level of simulation (see **Hotspots**) and have the runner's nose bloodied by a short but brutal battle with APEX itself.

## TO SEE BERLIN AND DIE

Whatever the runners decide, and if they understand their situation, it's now time to leave Berlin. Unless they have somehow managed to escape APEX's attention, they have a skilled and eager team of runners on their tail. Let the runners deter-

mine how they want to depart the district of Marzahn and then have Blitz's men make their move.

Note that they are good runners and even rather decent (meta)human beings who seldom do wet-work and generally prefer to avoid harming people. In a sense, outside of this job, these opponents could become friends with the runners.

They are unaware that they are working for APEX, but they are quite loyal to Blitz, who has been providing jobs and shelter for a while now. So they will try to complete the mission and eliminate the runners to the best of their abilities. They are not, however, suicidal. They will retreat or surrender if the runners clearly have the upper hand. If the runners remain in Berlin or in some way give them another chance at continuing their mission, they will seize it.

## PICKING UP THE PIECES

The runners will come back home most likely empty-handed, with more questions than answers. Their client is disappointed, but depending on what they have learned about the situation and tell him, the Aegis operative will relish any piece of this mysterious story the runners can feed him. He may even come back to them and offer another job in Berlin, in order to learn more about what is really going on in the free Matrix over there ...

## HOTSPOTS

### HERZBERGSTRÄBE NFA'S COMPOUND

A makeshift fence encircles the place, made of remnants of walls from a collapsed building tied together by a stack of three burned-out cars. Inside this perimeter, a small, three-story tower, which is a repurposed industrial laminator, acts as a lookout spot. There are three structures still standing. The largest one is the drug workshop, another is functioning as an armory and hangout for the NFA, and the last building is a half-secured storage unit.

Each roof has been covered with wide, black metallic tarps to prevent spying eyes from both the Matrix and drones.

Three times more NFA soldiers (use Mafia Soldier, p. 207, SR6) than runners are protecting this compound, and one-third of them are constantly patrolling inside the perimeter, while a second third is resting. The last group is in the watchtower.

Inside this improvised storage facility, the runners can find a secured hatch (maglock key rating 6, explodes if tampered with). It's been hidden by a lot of rubble, on purpose, so Manfred's goons have yet to notice it.

It leads to the underground labs. However, no amount of legwork can yield this information—the runners will need to explore the three buildings to locate this. And no one here—neither the NFA

soldiers nor their enslaved workforce alike—has knowledge of it.

## SECRET LAB AND APEX HOST

The facility itself is a gloomy place. It's not very big, either. It's moist and dark but uncomfortably warm. Indeed, it's a data center running full time, without proper ventilation, but with some water infiltration here and there. The walls are bare, and most of the furniture (desk, chair, etc.) have rotten and crumbled. Most walls have cracks through which water is dripping. The entry hatch has a metal ladder, similar to the ones used in submarines, that leads to a small room. A door, with broken maglock, gives access to a slightly bigger room, where technicians and scientists operated the large computer server isolated in the third and last room of the facility.

APEX completely redesigned the VR environment of this host into a very video-game-like simulation of Berlin during the F-State. Personas look like runners of the era but with cheesy graphics, IC looks like cops in armor moving around in very predictable patterns, and so on. Data Spikes strike their targets with silly “bang, bang” graphics. While the setting is actually dangerous and mortal, it is pretty goofy to navigate in. And needless to say, whoever comes into this host needs to run silently, otherwise they will be spotted immediately by APEX. The AI will launch Black IC that appears in the skies of the city as dragons.

## WHO'S WHO

### APEX

Readers familiar with the *Shadowrun: Dragonfall* videogame certainly remember this nefarious AI. The entity has survived, but not undamaged, the events of 2057 and even Crash 2.0 and has been working toward restoring itself and migrating to the wireless Matrix (this is fully explored in the German campaign *Netzgewitter*). APEX is a ruthless AI and probably the last pre-Crash 2.0 AI to still exist. It's incredibly powerful and dangerous, but it knows well that it can only survive hidden ... until it is allowed to leave the remnants of the cable-based Matrix of Berlin.

### BLITZ'S RUNNERS

Blitz is an old decker and runner from Berlin. His works in the shadows stopped a long time ago, and nowadays he acts more as a fixer. APEX often used him in this manner, and Blitz actually suspects the AI is still around. Because of his implication leading to its escape (see *Dragonfall*), APEX is rather wary of him, so the AI uses him as intermediary to keep tabs on the decker.

Berlin is an odd place, even for the Sixth World, and the runners making up the team are equally

uncommon :

**Gentle**, leader of the group, is a face and a rigger who loves drones and sports cars as much as women. He is fair, professional, and smart. Ambushes and wetwork are outside of his comfort zone, so he will let Kira handle the tactical part of the job (use Rigger, p. 86, SR6, but increase Agility and Charisma by 1 and set Con and Influence to 6).

**Kira** is a feminist female ork who was raised in the constant chaos of Gropiusstadt, another alternative district of Berlin, under the thumb of a violent trog gang named the Horde. Before running, she used to be a bouncer at a local fighting arena. She is a mean street samurai who favors heavy pistols, SMGs, and cyberspurs in a brawl (use Weapons Specialist, p. 90, SR6, switching metatype to ork and cybereyes to cyberspurs).

Kira's best friend is a quiet, friendly troll named **Elliott**. During his downtime, Elliott helps the families get by in Gropiusstadt, and in return the families act as his own private information network. He is therefore very much appreciated by the community. During a fight, he always relies on “Marcel” (his heavy pistol) and “Raymonde” (his stun baton) to swiftly put his enemies down (use Street Samurai, p. 87, SR6).

**Wizzle**, an improbable gnome illusionist, also keen on detection spells, who looks and acts as a young teenager. He's rarely in the front line, preferring to use illusion spells and deceive people by pretending to be a kid. The gnome is annoyingly chatty and inquisitive. He loves to know all about everything and can literally harass people with bursts of endless questions during a discussion ... (use Street Shaman, p. 88, SR6, but increase Body and Willpower by one, and replace spells Animate Plastic, Fireball, Levitate, Overclock with Analyze Truth, Analyze Magic, Detect Life, and Detect Magic).

**D.M.G.** is a dwarf technomancer who the runners are unlikely to face in the flesh, though his silly icon—a goldfish in a fishbowl wearing a large headset—will certainly cause them woe during the battle (use Technomancer, p. 89, SR6).

**Note:** The gamemaster can remove or add characters to make Blitz's team an appropriate threat for your runners. If you need more raw power, add a couple of ork gangers (use Gangers and Mob Muscle, p. 204, SR6), friends of Kira and Elliott the team often uses for extra firepower.

**Special Note:** The NFA arsenal is made of cheap knockoffs built nearby in Berlin. Purposely, those guns are without any wireless capability (all are throwback devices), making them unhackable but inefficient compared to normal weapons. People in the former neo-anarchist parts of the city are very wary of the wireless Matrix. However, if this is throwing off the deckers or technomancers at the table, feel free to let go of this.

FIN





# CAT

# THE ENDLESS FRONTIER

Digital cowpokes, bit jockeys, and light riders will all tell you that the Matrix is the last bastion of freedom in the world, the only place where you can go toe to toe with the most powerful people around and have a chance of taking them down. It's the last frontier, the Wild West, the great wide open.

It may be open, but it's far from empty. Artificial intelligences, protosapient creatures, hacker groups, technomancer unions, secret data stores, and more are out there. It's up to intrepid hackers to collect the best tools they can and see what they can discover and what connections they can make. All the while, they should remember that a place of freedom in the Sixth World doesn't need to be conquered—it needs to be preserved.

**Hack & Slash** is the core Matrix rulebook for *Shadowrun, Sixth World*.

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