AR MODIFIERS

Depending on the situation, AR can be a bonus or a detriment. In most cases, AR will be beneficial to you, simply by providing useful information. If it directly aids a task you are undertaking–such as overlaying internal schematics, help features, and real-time diagnostics while repairing an item–then the gamemaster can apply an appropriate dice pool modifier (usually +1 to +3) to the test.

AR can also be an important tactical aid. If your runner team is operating a linked PAN network, sharing data in real time–camera feeds, drone sensor pickups, interactive maps, etc.–you're going to have a tactical edge. The gamemaster determines the exact bonus, whether awarding extra dice to certain tests or applying an Initiative bonus to each meshed member of the team.

AR can also be a drawback, however. If you're occupied simultaneously with performing a data search and holding a conference call in your head, you're less likely to notice the ghoul sneaking up behind you. Spam and corp adverts specialize at bypassing your AR filters, so you may find yourself bombarded by intrusive infomercials at inopportune moments. Likewise, if someone hacks your commlink, you may be fed false data or blitzed with a sudden full-volume sensory blast. The gamemaster applies appropriate modifiers (usually –1 to –3 dice) to such situations.

Commcodes, Accounts, and Datatrails

Everyone who uses the Matrix has an access code. Your access code is like a phone number: it's how others know where to reach you online. It's also a way in which you may be tracked—something of concern to all shadowrunners. Details on your datatrail and protecting your privacy are covered under *Getting Online,* p. 214.

Many parts of the Matrix are open to public access, just like a web page—anyone can go there and view the contents. In order to enter some *nodes* (devices or networks), however—especially private ones—you must actually log in to an account. The type of account you have determines what actions you can legitimately take on that particular node (see *Authorized Access,* p. 215).

Matrix Actions

A number of actions are available to anyone interacting with the Matrix (see *Using the Matrix,* p. 217). When accessing by AR, these actions may be interchanged with standard physical actions.

Matrix Tests

The gamemaster may call for a test to see how well your character can achieve something in the Matrix, such as digging up a profile on Mr. Johnson. Matrix skill tests use the same skill + attribute dice pool as other tests, except that since you are interfacing with the machine world, you use an appropriate device or program attribute in place of your character's attribute. If your character is examining a stolen datafile to determine what corporate databank it came from, for example, you roll your Computer skill + Analyze program.

HACKING THE MATRIX

For hackers and technomancers, it's not enough to merely use and understand technology and the Matrix—they must explore and exploit it to its full potential. These wireless wizards find the skills of Hacking (see p. 223) and Electronic Warfare (p. 225) necessary to truly reach the beating heart of the machine world. The skills of Hardware and Software (p. 124) are also useful for hackers who want to create their own tools.

Hacking In

The primary task of hacking is breaking into the target node. This is the main point of contest between the hacker and system security, pitting the hacker's skills and programs against the target's Firewall and IC (intrusion countermeasures). Hackers can accomplish this in two ways: on the fly or slowly probing for an exploitable weakness. The first is more likely to raise alarms and trigger countermeasures; the second is more effective but takes time to accomplish properly. For full details, see *Hacking,* p. 221.

Once a hacker has penetrated a node, he can go about his business without having to compete with security anymore—*unless* he has triggered an alarm. If the system is alerted to the intrusion, he will have to deal with whatever IC and other countermeasures the gamemaster throws at him.

Other Hacker Tricks

Naturally, hackers have a wide repertoire of tricks up their digital sleeves, from covering their tracks to intercepting data to turning that street samurai's own cyberarm against him. Many of these are detailed under *Using Hacking Skill* (p. 223), *Using Electronic Warfare Skill* (p. 225), and *What Every Runner Needs to Know About Hacking* (p. 224).

MATRIX COMBAT

Cybercombat is the use of offensive programs against other icons in the Matrix. Cybercombat follows the same Opposed Test procedure as standard combat, pitting the attacker's Cybercombat + attack program versus the target's Response + Stealth. Programs substitute System for Cybercombat skill. For more details, see *Cybercombat,* p. 230.

RIGGING

Just as hackers can manipulate devices and security systems through the Matrix (or through a direct wired/wireless link), they can also control unmanned vehicles known as