CyberFuzion Netrunner

A Fuzion Plug-In
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Introduction

This is a system of rules expanding the hacking rules for Fuzion and Interlock. These rules draw heavily on Cyberpunk 2020's Netrunning rules and are intended to be native in a Cyberpunk environment where neural cyber-interfaces are standard, though they are written generically enough to be useable in a modern setting as well.

These rules were designed to use existing Cyberpunk 2020 equipment and software with little modification. There are several differences from the original rules, however, that are intended to speed play and optimize simplicity. First, these rules lack a grid. Movement within the virtual environment of cyberspace is conceptual. To convert applications that give "ranges", simply apply a percentage chance of effectiveness based on range. Second, these rules incorporate the Power attribute from other Fuzion games, essentially the equivalent to a computer's Intelligence from CP2020. Third, the number of CPUs a system uses is irrelevant to these rules and is considered background information.

Although these rules are written for one type of interface (manual or cybernetic), a GM can mix the two by simply specifying which is the standard and apply a -2 to all manual rolls if cybernetic is standard or +2 to all cybernetic rolls if manual is the standard. In addition, these rules assume a 3d6 die-rolling mechanic option of Fuzion. If you're playing Interlock, or the Fuzion option of 1d10, simply replace the 3d6 with a 1d10 die roll and replace all +10 with +d10. You won't achieve the same kind of bell curve, but the results will be sufficiently randomized.

The Net

The Net is a global computer network allowing fast and convenient access to millions of computers from any other computer on earth or beyond. Any computer connected to this network has the capability to access information from any other computer connected to this network regardless of distance or time of day. Whether it is called the Internet, the Web, the Cybernet, the Face, or the Net, all use different special effects and technologies to describe the same thing. This plug-in assumes a near-future setting which makes use of a Virtual Reality interface and gives exciting names to actions and tasks which can be easily modified to fit a more mundane modern setting.

All computers connected to the Net are assigned an **LDL,** or **Long Distance Link**. This LDL serves as a kind of telephone number for that computer, to which other computers know where to send information. In a futuristic setting, a Virtual Construct or **Icon** may substitute for the LDL. The Net User connects their computer to a **Virtual Reality Interface**, within which companies pay for space and create elaborate virtual constructs to represent their LDL, the VR equivalent of Internet Portal Sites such as Infoseek or Yahoo! today. The Net User may now tour the bustling 3D Virtual City regardless of gravity or speed. Corporate virtual constructs are like giant 3D advertisements, attempting to entice the average Net User into their Virtual Realities to sell products or services. Some Virtual Realities actually provide useful services such as information or online software applications. The VR equivalent to modern Web-sites.

Dataservers

Net accessible computer files are housed on **Dataservers.** Dataservers are large mainframe servers maintained by corporations or institutions. Computer files are placed on Dataservers for public consumption.

Normally, a corporate dataserver is openly accessible to the Net public, providing information either to the public or its employees through a variety of interfaces: text-only, text and graphics (the Web), audio/video, or full-sensory virtual reality (the Net).

However, the value of information available on public dataserver sites is poor and bland. In addition, access to remote software applications is limited to public-domain applications.

Datafortresses

Not all information on a Dataserver is publicly available. Many corporations or institutions provide restricted access to sensitive information to authorized users. This information is stored within **Datafortresses**.

Datafortresses are secure servers that provide authorized users remote access to restricted data or software applciations. Security is maintained through the datafortress' **DataWall** program. The level of security restriction depends on the value of the information or application. Secure information may be housed on the same dataserver as public information, only hidden in restricted directories, effectively invisible from those who lack proper authorization. Authorization comes with proper identification.

Identification can come in many forms: Authorized Net LDLs, passwords, proper interface software, or even biometric data such as fingerprints, retinas, or DNA.

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SysAdmins

The **SysAdmin,** or **System Administrator,** is in charge of security for a Dataserver/Datafortress. It is their primary job to prevent Hackers from illegally gaining unauthorized access to restricted data. It is their secondary job to catch hackers who have already infiltrated their system.

SysAdmins use their own computers connected to a Dataserver/Datafortress to execute software applications. The Dataserver/Datafortress itself uses software such as **Codegates**, **Datawalls**, and **Detection** software deter and identify hackers, yet allow authorized users in.

A Datafortress is also characterized by its **Power**. A Datafortress is also usually programmed with levels of the **Security** and **Perception** skills ranging from 1 to 10. like human skills, these are added to the computer's Power when executing software applications. The computer's Security skill level is also its Trace Value if being used to chain connections.

A SysAdmin can't do anything to catch a Hacker if he doesn't know they're there, so the SysAdmin relies heavily on Detection software to notify them of unauthorized access. Once detected, the SysAdmin will either attempt to disconnect the hacker, determine the hacker's location with a **Trace** application, disable the hacker's software with an **Anti-Software** application, disable the hacker's computer with **Anti-System** software, or physically injure the hacker with **Anti-Personnel** software.

Hackers

It is a hacker's goal in life to gain unrestricted access to restricted information, uncover secrets, make unauthorized changes to data, or to use a restricted software application.

When attempting to gain unauthorized access to a corporate datafortress, the hacker establishes a legal connection to the company's dataserver. Once connected, the hacker has normal access to the free services. Normally, an authorized user will then use an interface program to gain access to the datafortress. The datafortress' **Code Gate** program verifies authorization and allows access. The hacker attempts to fool the code gate into authorizing entry. Should that fail, the hacker may attempt to gain entry by disabling the DataWall program protecting the information.

Once past security, hacker uses **Stealth** software to fool detection software into either authorizing or ignoring the hacker's connection. If discovered, the hacker may fight back against the SysAdmin with Anti-Software, Anti-System, or Anti-Personnel software of their own.

Should the hacker gain access to the Datafortress' directories, they may view, copy, or alter data. Data comes in the form of online applications for remote use, inter-office communication, public display data (text, audio-video, or VR), databases, or records.

The Hacker's arsenal includes a computer or Cyberdeck, specialized hacking software, and, foremost, a way to connect to a remote target computer, usually via the Net though direct connections, however unwise, can be made.

A Hacker's access to the Net is very important. To connect to the Net, the Hacker must have an LDL. LDL's cost 50 **Euro** a month from the **Internet Corporation**, though they, too, can be hacked. Connections between computers are relatively easy to trace. Each computer connection has a corresponding **Trace Value** from 1 to 10. Hackers generally make a chain of several connections before they proceed to their target computer. A SysAdmin wishing to trace the ultimate origin of the Hacker must trace every connection to find the source.

Physical Infiltration

Although many hackers break into computers in the middle of the night from the safety of their bedrooms, the reality is that most corporate datafortresses are simply impregnable.

Datafortress security is very sophisticated, and only the best hackers in the world could hope to infiltrate a corporate datafortress remotely. The best solution, therefore, is physical infiltration.

Physical infiltration involves actually entering the building where the datafortress is housed and gaining direct access to either the datafortress itself, or a lower security terminal connected to the datafortress within the datawall.

Physical infiltration provides several benefits in that connecting to a terminal within the network often eliminates or reduces the difficulty of three steps of the infiltration process: **Breaking the Password**, **Bypassing the Firewall,** and **Covering Your Tracks** (see **Steps in Cracking a Datafortress**). High security networks can sometimes still offer stiff resistance, even within the datawall, but the difficulty is often greatly reduced, often by as much as –5.

The disadvantage of physical infiltration is, of course, the added danger of getting caught and/or killed. The hacker must personally enter a hostile building or facility patrolled by armed guards and equipped with physical and biometric security. Hackers, therefore, often surround themselves with heavily armed protection for such operations.

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Computers

Computers, whether they are PDA's, Laptops, Desktops, Dataservers, or Mainframes, exist to execute software applications. **Power**, **Memory**, and **Security Level** characterize the computer.

A computer's Power is used like a character's Body or Reflexes, it determines the computer's resiliency to attack and its base chance to perform an action. Power is rated 1 to 10 (or higher in the case of AI's), with most available computers not exceeding 7. A Computer's Power also determines the computer's Memory, or how much software it can run and data it can store.

Software and Data are stored in **Memory Units**. A Computer's Memory is rated in MU's.

Memory can be improved for $100 per +1 MU, up to twice the original MU of the computer.

Power also determines the starting level of system's Datawall. A Datafortress' base Datawall strength is equal to its Power.

Computers with a Power rating higher than 10 are considered **Artificial Intelligences.** AI's are capable of full interactivity and often develop idiosyncratic personalities beyond their programming.

A Computer may also possess skills like a character. Memory can be put aside to use as skills at a rate of 1 MU per Skill Level. In this way, a computer can devote 5 MU to have a Security skill at level 5.

The Security Level is either the SysAdmin's or Computer's **Computer skill,** whichever is higher, added to its Power when resisting attacks. The Security Level is also used to determine a server's **Trace Value** when using it to chain connections in preparation for a run.

A Computer can respond to hackers automatically. Once Detection software has identified an unauthorized intruder, the Computer can automatically execute Anti-Personnel software against the Hacker, or trace the signal and run Anti-System software against the Hacker's computer.

There are two classes of computer: Personal Computers and Dataservers. Personal Computers are small inexpensive low-power computers one might find on a desktop or as a hand-held. Personal Computers are never higher than Power 7. Dataservers are large mainframe server installations with full high-speed Net connections and many layers of back-ups. Mainframes can be any Power, but are generally Power 8 or higher.

Personal Computers	*Cost in Euro*
Pocket	100
A hand-held personal assistant. (POW 1, MU 5, Datawall 1)	
Portable	600
A book-sized computer. (POW 2, MU 10, Datawall 2)	
Laptop	750
A lightweight folding computer. (POW 4, MU 20, Datawall 2)	
Desktop	1000
A larger computer with more peripherals. (POW 6, MU 30, Datawall 3)	

Dataservers	*Cost in Euro*
Mainframe	10,000 per Power
A mainframe's price depends on its Power rating, generally from 1-10. Power also determines its Memory and Datawall Strength. Each Power provides 30 MU and 1 Datawall Strength. (POW 1, MU 30, Datawall 1)	

Computer Peripherals	*Cost in Euro*
Cyber/Neural Interface (+2 AV/DV)	price x 2
Allows a user with a Machine Link to control a computer. Different from a Cyberdeck in that the computer's POW still processes all software and data.	
Cellular Net Access (-2 AV/DV)	+1200
All computers are hard-wired for Net access. Cellular access allows connection anywhere.	
+1 Memory (up to x2 original)	+100
Increases the memory capacity of the computer.	
Level 4 Skill	200
Computers may run as many skills as their Power. Useful skills include Accounting, Computer, Perception, Mathematics, and System Knowledge.	
+1 Skill Level	+100
Increases a skill level by 1, up to level 10.	

Other computers and peripherals can be found in *Rache Bartmoss' Brainware Blowout* by R.Talsorian games.

Conversion Note: In the case of Personal Computers, the original CP2020 Personal Computer's INTx2 = POW. In the case of mainframes and dataservers, the original CP2020 Mainframe's INT/2 = POW. Personal computers are a little more capable under this system compared to CP2020. Likewise mainframes are a little more expensive and have slightly better datawalls in this system compared to CP2020. Technically, each +1 POW would grant +0.67 Datawall Strength and would cost +6,667 euro.

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Cyberdecks

Cyberpunk 2020 offers a piece of advanced technology called the Cyberdeck. Most computers process software and instructions through its Central Processing Unit, or CPU. A CPU is the "brain" of the computer. Cyberdecks, however, lack a CPU. Instead, they process software and instructions directly in the user's living brain!

This is accomplished through the use of a cybernetic Neural Processor, a Cybermodem Link, and Interface Plugs implanted in the user's skull. The Cyberdeck itself is little more than a disk drive and net connection, allowing the user to load software and data directly into his brain. The user's brain then processes the software and data as a living CPU. The advantage to using a Cyberdeck over conventional computers is speed. Most computers, although fast and powerful, simply do not match the human brain in processing capability. Another advantage is cost. Cyberdecks are relatively inexpensive compared to most mainframe computers. Whereas a Power 6 mainframe costs 20,000 Euro, an Intelligence 6 Cyberdeck user can achieve the same processing power for only 3300 Euro, including the price of necessary cybernetics and surgery.

The disadvantage of Cyberdecks over computers and mainframes is that a Cyberdeck only has as much processing power as the Intelligence of the user. Additionally, a Cyberdeck is considerably more expensive than a Personal Computer, although the best PC's barely match even the average Intelligence 3 human brain in processing power. Another drawback to Cyberdecks is the vulnerability places the user in. A Cyberdeck user's brain is directly connected to the Net. Although firewalls and safety's protect the user's brain, illegal software exists that can bypass such security and directly affect the user's memory, motor functions, and even autonomic functions.

Due to the cost and the risk, the average computer user has never embraced the Cyberdeck. Instead, the technology found its niche among the Hacker subculture. Hacker's enjoyed the boost in speed and processing power, and did not find the higher cost prohibitive. And the elevated risk was worth the rewards.

Cyberdecks are rated by their **Speed,** and their **Memory**. A Cyberdeck lacks a Power rating. Instead, a Cyberdeck's Power is equal to its user's Intelligence score.

A Cyberdeck's Speed is added to the user's Initiative rolls.

Software and data are stored as Memory Units in the Cyberdeck's memory similar to computers.

Cyberdecks come in 6 basic styles, each identical in performance but different in design and function.

Cyberdecks	*Cost in Euro*
Basic	1000
Standard non-portable land-line Cyberdeck. (Speed 0, MU 10)	
Portable	2000
Rechargeable land-line Cyberdeck. (Speed 0, MU 10)	
Cellular	4000
Rechargeable and fully portable, able to connect to the Net from anywhere. (Speed 0, MU 10)	
Cyberlimb	3000
A Portable Cyberdeck specially built into a cyberarm or leg. (Speed 0, MU 10)	
Combat	3000
A ruggedized and armored Cyberdeck favored by the military. (Speed 0, MU 10, KD 20)	
Sealed Combat	6000
A waterproof armored military cyberdeck useful for aquatic or wet environments. (Speed 0, MU 10)	

Cyberdeck Peripherals	*Cost in Euro*
Cellular Net Access (-1 AV/DV)	+1200
Non-cellular Cyberdecks can be wired for cellular net access. Cellular access allows connection anywhere. The disadvantage over a cellular Cyberdeck is a loss in performance.	
+1 Memory (up to x2 original)	+100
Increases the memory capacity of the Cyberdeck.	
+1 Speed (up to +5)	+2000
A Cyberdeck's speed can be increased up to +5.	

Other Cyberdecks and peripherals can be found in *Rache Bartmoss' Brainware Blowout* by R.Talsorian Games.

Conversion Note: Cyberdecks require no conversion. Any Cyberdeck published in any existing Cyberpunk 2020 product can be used as-is.

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Software

Software applications are measured by their **Strength**, which act as a sort of Weapon Accuracy, which is added to all tasks performed with that application. Software Strength is rated from 1 to 10.

Software is also measured by how many Memory Units it uses on its host computer. MU are cumulative. A computer with 30 Memory Units can run one 15 MU program and three 5 MU programs simultaneously. Switching out a program takes one action.

Software applications can have very specific effects, depending on the application being used. Hacker software is used to infiltrate other computers. Datafortress software prevents unauthorized access. Utilities are common applications found on all types of computers.

Software applications found in Cyberpunk 2020 are fully compatible with this system.

Hacker Software

Type	Effect	Strength	MU	Cost
Decryption (Wizard's Book)	Defeats Codegates and File Locks.	4	2	400
Intrusion (Hammer)	Defeats Datawalls.	4	1	400
Stealth (Invisibility)	Defeats Detection Software.	3	1	300
Protection (Shield)	Defeats Anti-Personnel Software.	3	1	150
Anti-Software (Killer II)	Attacks any Counter-Intrusion Software. Does 1d6 damage to target software's STR.	2	5	1320
Hacker Package	All of the above in one package.	-	10	2570

Counter-Intrusion Software

Type	Effect	Strength	MU	Cost
Authentication (Codegate)	Allows access to restricted information to authorized users	2 +1	1 +1	2000 +1000
Firewall (Datawall)	Prevents all access to restricted information.	1 +1	1 +1	1000 +1000
Detection (Guard Dog)	Detects unauthorized users, traces signal, and alerts SysAdmin.	4	5	720
Anti-System (Flatline)	Causes system to crash. Grey-info servers only.	3	2	570
Anti-Personnel (Hellbolt)	Does 1d10 Hits directly to target's body if connected via a cyber-jack. Black-info servers only.	4	4	6750
Datafortress Package	All of the above in one package.	-	13	11,040

Utilities

Type	Effect	Strength	MU	Cost
Restore Utility (ReRezz)	Recompiles and restores destroyed programs.	3	1	130
Recorder Utility (Instant Replay)	Records activities of current Hack for replay later.	8	2	180
Virus Protection Utility (Gatemaster)	Detects and destroys Virus programs.	5	1	150
File Protection Utility (Electrolock)	Locks datafiles as a Strength 3 Code Gate.	7	2	170
Compression Utility (Packer)	Reduces program size by 1/2. Takes 2 turns to unpack.	4	1	140
Backup Utility (Backup)	Creates copies of most programs on chip.	4	1	140
VR Map Utility (Cartographer)	Supplies complete system map of VR interface.	6	3	200
Utility Package	All of the above in one package. Saves MU and money.	5	10	1000

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Sample Dataservers

1 - Minor business or personal system (grey info)

Statistics: POW 2, Memory 60, (20,000 Euro).
Skills: Computer 4 (200 Euro); Perception 4 (200 Euro).
Software: Anti-Software (Strength 2, 5 MU, 1320 Euro); Authentication (Str 2, 1 MU, 2000 Euro); Detection (Strength 4, 5 MU, 720 Euro). Anti-System (Strength 3, 2 MU, 570 Euro) for grey systems.
Available Memory: 49 MU; 47 MU for grey systems.
DVs: Codegate 16, Datawall 16, Detection 20.
Total Cost: 24,440 Euro; 25,010 Euro for grey systems.
Example: DataTerms, Minor Personal Information.

2 - Major business (grey info) or personal system (black info)

Statistics: POW 4, Memory 120, Datawall Strength 4 (40,000 Euro).
Skills: Computer 4 (200 Euro); Perception 4 (200 Euro).
Software: Anti-Software (Strength 2, 5 MU, 1320 Euro); Anti-System (Strength 3, 2 MU, 570 Euro), Authentication (Str 4, 3 MU, 4000 Euro); Detection (Strength 4, 5 MU, 720 Euro). Anti-Personnel (Strength 4, 4 MU, 6750 Euro) for black systems.
Available Memory: 105 MU; 100 MU for black info.
DVs: Codegate 22, Datawall 22, Detection 22.
Total Cost: 40, 260 Euro; 47,010 Euro for black systems.
Example: Business Accounts, Secret Personal Information

3 - Major business (black info) or Megacorp system (grey info)

Statistics: POW 6, Memory 180, (60,000 Euro).
Skills: Computer 6 (400 Euro); Perception 6 (400 Euro).
Software: Anti-Software (Strength 2, 5 MU, 1320 Euro); Anti-System (Strength 3, 2 MU, 570 Euro), Authentication (Str 6, 5 MU, 2000 Euro); Detection (Strength 4, 5 MU, 720 Euro). Anti-Personnel for black systems (Strength 4, 4 MU, 6750 Euro).
Available Memory: 163 MU; 158 MU for black systems.
DVs: Codegate 28, Datawall 28, Detection 26.
Total Cost: 62,660 Euro; 69,410 Euro for black systems.
Example: Alternative Accounts, Customer Sales Information

4 - Government (grey info), Megacorp (black info) or Criminal system (grey info)

Statistics: POW 8, Memory 240, (80,000 Euro).
Skills: Computer 8 (600 Euro); Perception 8 (600 Euro).
Software: Anti-Software (Strength 2, 5 MU, 1320 Euro); Anti-System (Strength 3, 2 MU, 570 Euro), Authentication (Str 8, 7 MU, 8000 Euro); Detection (Strength 4, 5 MU, 720 Euro). Anti-Personnel for black systems (Strength 4, 4 MU, 6750 Euro).
Available Memory: 221 MU; 216 MU for black systems.
DVs: Codegate 34, Datawall 34, Detection 30
Total Cost: 91,810 Euro; 98,560 Euro for black systems.
Example: Police Files, Sabotage Information, Holdings Information

5 - Government (black info), Orbital (grey info), or Criminal system (black info)

Statistics: POW 10, Memory 300, (100,000 Euro).
Skills: Computer 10 (800 Euro); Perception 10 (800 Euro).
Software: Anti-Software (Strength 2, 5 MU, 1320 Euro); Anti-System (Strength 3, 2 MU, 570 Euro), Authentication (Str 10, 9 MU, 10,000 Euro); Detection (Strength 4, 5 MU, 720 Euro). Anti-Personnel for black systems (Strength 4, 4 MU, 6750 Euro).
Available Memory: 279 MU; 274 MU for black systems.
DVs: Codegate 40, Datawall 40, Detection 34.
Total Cost: 114,210 Euro; 120,960 Euro for black systems.
Example: Black Op Files, Internet Account Holders, Face Bank Accounts

6 - Orbital system (black info)

Statistics: POW 12, Memory 360, (120,000 Euro).
Skills: Computer 12 (1000 Euro); Perception 12 (1000 Euro).
Software: Anti-Software (Strength 2, 5 MU, 1320 Euro); Anti-System (Strength 3, 2 MU, 570 Euro), Authentication (Str 12, 11 MU, 12,000 Euro); Detection (Strength 4, 5 MU, 720 Euro). Anti-Personnel for black systems (Strength 4, 4 MU, 6750 Euro).
Available Memory: 337 MU; 332 MU for black systems.
DVs: Codegate 46, Datawall 46, Detection 38.
Total Cost: 136,610 Euro; 143,360 Euro for black systems.
Example: Agora Mecca, Cyber Circle Lunar, Ishima Orbital Databases

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Non-Player Characters

Weefle-Level Runner/SysAdmin
Mental: 4, **Combat**: 3, **Physical**: 2, **Move**: 3

RES 9, **Hits** 10, **Stun** 10, **SD** 4, **REC** 6, **INIT** 3, **Punch** 2d6 (AV 3), **Walk** 3m, **Run** 6m, **Sprint** 9m

Skills: Computers +3, Computer Technology +2, Cryptography +2, Forgery +2, Games/Gambling +2, Hacking +4, Perception +2, Persuasion +2, Research +2, Streetwise +2, System Knowledge +2.

Options: Time Sense, Contacts (other Hackers).

Cyber: Processor (Cybermodem Link, Interface Plugs).

Deck: Basic Deck (Speed +0, MU 10)

Software: Decryption (Srength 4, 2 MU), Intrusion (Strength 4, 1 MU), Stealth (Strength 3, 1 MU), Protection (Strength 3, 1 MU). Total MU: 5.

Mid-Level Runner/SysAdmin
Mental: 6, **Combat**: 5, **Physical**: 2, **Move**: 3

RES 15, **Hits** 10, **Stun** 10, **SD** 4, **REC** 6, **INIT** 6, **Punch** 2d6 (AV 6), **Walk** 3m, **Run** 6m, **Sprint** 9m

Skills: Computers +4, Computer Technology +3, Cryptography +3, Forgery +3, Games/Gambling +3, Hacking +5, Hand-to-Hand +1, Perception +3, Persuasion +3, Research +3, Streetwise +3, System Knowledge +3.

Options: Time Sense, Contacts (other Hackers).

Cyber: Processor (Cybermodem Link, Interface Plugs).

Deck: Mid-Range Deck (Speed +2, MU 20),

Software: Decryption (Srength 4, 2 MU), Intrusion (Strength 4, 1 MU), Stealth (Strength 3, 1 MU), Protection (Strength 3, 1 MU), Utility Software Package (Strength 5, 10 MU). Total MU: 15.

Pro-Level Runner/SysAdmin
Mental: 7, **Combat**: 6, **Physical**: 2, **Move**: 3

RES 18, **Hits** 10, **Stun** 10, **SD** 4, **REC** 6, **INIT** 7, **Punch** 2d6 (AV 8), **Walk** 3m, **Run** 6m, **Sprint** 9m

Skills: Computers +6, Computer Technology +6, Cryptography +4, Forgery +4, Games/Gambling +4, Hacking +6, Hand-to-Hand +2, Perception +4, Persuasion +4, Pistol +1, Research +4, Streetwise +4, System Knowledge +4.

Options: Time Sense, Contacts (other Hackers).

Cyber: Processor (Cybermodem Link, Interface Plugs, Boosterware +1).

Gear: Dai Lung CyberMag 15 (AV 4, Dam: 1d6+1, Ammo/ROF: 10/2).

Deck: Mid-Range Deck (Speed +2, MU 30),

Software: Decryption (Srength 4, 2 MU), Intrusion (Strength 4, 1 MU), Stealth (Strength 3, 1 MU), Protection (Strength 3, 1 MU), Anti-Software (Strength 2, 5 MU), Authentication (Strength 2, 1 MU), Firewall (Strength 2, 2 MU), Detection (Strength 4, 5 MU), Utility Software Package (Strength 5, 10 MU). Total MU: 24.

Top-Level Runner/SysAdmin
Mental: 9, **Combat**: 8, **Physical**: 3, **Move**: 4

RES 24, **Hits** 10, **Stun** 10, **SD** 4, **REC** 6, **INIT** 12, **Punch** 3d6 (AV 12), **Walk** 4m, **Run** 8m, **Sprint** 12m

Skills: Computers +8, Computer Technology +8, Cryptography +6, Forgery +6, Games/Gambling +8, Hacking +9, Hand-to-Hand +4, Perception +6, Persuasion +4, Pistol +4, Research +7, Streetwise +6, System Knowledge +6.

Options: Combat Sense +2, Time Sense, Contacts (other Hackers).

Cyber: Processor (Cybermodem Link, Interface Plugs, Boosterware).

Gear: Dai Lung CyberMag 15 (AV 13, Dam: 1d6+1, Ammo/ROF: 10/2).

Deck: Mid-Range Deck (Speed +5, MU 40),

Software: Decryption (Srength 4, 2 MU), Intrusion (Strength 4, 1 MU), Stealth (Strength 3, 1 MU), Protection (Strength 3, 1 MU), Anti-Software (Strength 2, 5 MU), Authentication (Strength 2, 1 MU), Firewall (Strength 2, 2 MU), Detection (Strength 4, 5 MU), Anti-System (Strength 3, 2 MU), Anti-Personnel (Strength 4, 4 MU), Utility Software Package (Strength 5, 10 MU). Total MU: 34.

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The Menu

To simplify using a computer in a game context, a simple set of commands has been devised. These commands are called "The Menu". A Hacker simply chooses his action based on the list available in the Menu.

The Menu

Log On/Off: Legally gain access to an unrestricted Dataserver through proper authorization techniques (password, LDL authentication, or biometrics).

Run Program: Run either a local or remote software application.

Read File: View the contents of a **datafile**, be it Text, Graphics, Audio/Video, or Virtual Reality.

Copy File: Copy a file from a remote location to a local one. Warning, a record is kept of each copy in a file history.

Edit File: Edit the contents of a datafile above. Warning, a record is kept of each modification in a file history, including the modification of the file history.

Erase File: Erase a datafile above. Warning, a record is kept of each erasure in a file history, including the erasure of the file history.

LDL: Establish a connection to a Dataserver. Warning, if disconnecting from a Datafortress due to failed Stealth attempt, the SysAdmin can still do a trace on your LDL.

The Goods

Once a successful Hacker has bypassed security (Datawalls, Codegates, and Detection software), he now has access to the Datafortress' CPU. The Hacker may now view stored files (text, video, audio, VR) or run online software applications. Be warned, individual files may have further security measures attached to them. For example, a file marked "Black Ops: Top Secret" might have another Detection application attached to it which the Hacker must bypass. Or it may be file-locked. Tampering with any ICE applications automatically requires the Hacker bypass a File Protection Utility and any Detection Software.

Common datafiles found on corporate datafortresses include:

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1. Inter-Office Memos (E-Mail); 50% of memory.
2. Promotional Material (such as VR advertising sims and Web Pages); 10% of memory.
3. Business Records (including databases); 25% of memory.
4. Financial Transactions; 10% of memory.
5. Grey Ops; 3% of memory.
6. Black Ops; 2% of memory.

CPU's house applications for online use as well. Applications range from simple spreadsheets and word processors to VR Simulations and computer-controlled robotic systems such as security video surveillance, elevators, building climate-control, assembly robots, etc.

Note on making copies: In the Cyberpunk future, all files have a file-history, recording all modifications to the file. Though modifications can be made to the file-history, the File-history now has a record of the modification.

This feature is used to determine the propriety of data. For instance, a hacker finds a file in the Arasaka database called "Black Ops: Top Secret". The File History for that file will indicate how many times it has been viewed, by what User, and when. Our Hacker decides to make a copy. The original now records that a copy was made at this date by this user. The new Copy records that it was copied from an original on this date by this user. Every time the hacker views the material, the record shows that the file was viewed on this date by this user. If the hacker wishes to sell this information, a prospective buyer can view the file-history and see how many times the file has been seen, modified, and copied and by whom.

Diluted data will lower the file's value. Virgin data will raise its value. The enterprising Hacker can easily change the File-History, but a record is made that the file-history has been changed, thus lowering the value even more. The Hacker can then try to delete the record of the change, but the deletion of the change is recorded in the file-history. It never ends. The safest bet is to just own one copy and not view it.

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Steps in Cracking a Datafortress

1. Library Research

> *Intelligence + Library Research + 3d6*
> *vs. Diffiuclty Number*

Determine little facts about the corporation. The margin of success is granted as a bonus to the Decryption roll in step 2.

1a. The Hacker loads up a good selection of software. Necessary applications include one **Decryption**, one **Intrusion**, one **Stealth**, one **Anti-ICE**, and one **Protection**.

2. Daisy Chain (Connect to an LDL)

> *Roll over LDL Security Level on 1d10*

The Hacker has connected to a remote server and may use it to connect (LDL) to another remote server, making a chain of connections to their target. SysAdmins must trace each connection to determine the Hacker's LDL. Once a chain of connections has been established, the Hacker may use the same chain indefinitely unless access is revoked by the remote server's Net Access Provider.

If unsuccessful, the remote server has refused to connect the Hacker. The Hacker must then make a final connection to the target server.

3. Breaking the Password (Decryption vs. Codegate)

> *Intelligence + Hacking + Decryption Program Str + 3d6 vs. Power* + Computer + Codegate Str + 10*

If successful, the Hacker has fooled the Code Gate into allowing unauthorized access to the server. The Hacker is still susceptible to Detection software; proceed to step 5.

 If unsuccessful, the Hacker still has no access to the server. Repeated failed attempts (3d6) will cause any Detection Software to alert the SysAdmin to the attempt who may use Detection software to initiate a trace to locate and/or monitor the possible Hacker. Continue to Step 4.

4. Bypass the Firewall (Intrusion vs. Datawall)

> *Intelligence + Hacking + Intrusion Program Str + 3d6 vs. Power* + Computer + Datawall Str + 10*

If successful, the Datawall has been circumvented and the hacker now has access to the server. The Hacker is still susceptible to Detection software, however. Proceed to step 5.

If unsuccessful The Hacker still has no access to the server but may have been noticed. If unnoticed, try again. If noticed, either a SysAdmin or an Anti-Personnel Program has been notified of the Hacker's presence and will attempt to apprehend or discourage him, proceed to Combat!

5. Cover your Tracks (Stealth vs. Detection)

> *Intelligence + Hacking + Stealth Str + 3d6*
> *vs. Power* + Perception + Detection Str + 10*

If successful, the Detection Software has detected no unauthorized activity but may attempt to re-validate the user after an interval of time (3d6 rounds), proceed to step 6.

If unsuccessful, the Detection Program has detected unauthorized activity and may notified either a SysAdmin or an Anti-Personnel Program to apprehend or discourage the Hacker, proceed to Combat!

6. You now have access to the CPU.

The computer thinks you are logged on as an official authorized user. You may access datafiles and software applications available on that server. Some datafiles and applications may contain further security measures. If so, repeat step 3.

7. Logging Off.

Failing to log off or being cut from the line means that the SysAdmin can still trace your location. Be sure to always log off properly. View the contents of any file you download, but be wary of the file-history: don't dilute your data!

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* If infiltrating a Netrunner's Cyberdeck, substitute the Netrunner's INT for the Computer's Power.

by Christian Conkle

Combat!

1. Determine Initiative.

> *Human Intelligence + Cyberdeck's Speed (if any) + 3d6*
>
> *Computer's Power* * *+ 3d6*

2. Perform Actions in order of Descending Initiative Scores. Characters with higher Initiative Scores may choose to Wait and interrupt characters with lower scores. Characters may perform Abort actions out of normal Initiative order.

3. Intruder Combat Options:

a. Intruder attacks Defender's Software.

> *Intelligence + Hacking + Anti-Software Program Str + 3d6*
> *vs. Computer's Power* * *+ Computer + Program Str + 10*

If successful, the target software application has crashed and erased from the server.

If unsuccessful, the attack has failed to crash the application. Detection Software automatically traces the Hacker's connection and alerts the SysAdmin to the attempt who may attempt to discourage the Hacker.

b. Intruder attacks SysAdmin.

> *Intelligence + Hacking + Anti-Personnel Program Str + 3d6*
> *vs. Protection Program Str + Intelligence + Computer + 10*

If successful, the Anti-Personnel program has done damage directly to the user's brain (*STR - Protection STR in Hits*), only if connected via a cyber-modem. On older non-cyber connections, treat attack as an Anti-System attack.

If unsuccessful, the attack has failed to do any damage.

c. Intruder attacks System.

> *Intelligence + Hacking + Anti-Sys Program Str + 3d6*
> *vs. Computer's Power* * *+ Computer + DataWall Str + 10*

If successful, the Anti-system software has caused the server to crash, ceasing all activity until the server can be re-initialized using a Restore Utility. The Intruder is immediately disconnected, but not logged off. Once the system is re-initialized, the SysAdmin may attempt the trace the connection.

If unsuccessful, the attack against the server failed. Detection Software automatically alerts the SysAdmin to the attempt who may initiate a trace to locate and/or monitor the possible Hacker.

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* If infiltrating a Netrunner, substitute the Netrunner's INT for the Computer's Power.

4. Defending CPU Combat Options:

a. Defending CPU traces Intruder

> *Power* * *+ Computer + Program Str + 3d6*
> *vs. Intelligence + Hacking + Trace Value + 10*

Generally the first step in any defense. If successful, the Detection Software has located the origin of the Hacker's connection and informed the SysAdmin. A Detection Program must trace each connection in the event of chained connections (see above) to determine the origin. Once determined, the SysAdmin may contact the Hacker's Net Access Provider in an attempt to have their access revoked. In addition, any further unauthorized attempts to connect from any server on a traced chain will automatically alert the SysAdmin's Detection Software. If a connection was severed without spending an action Logging Off, the SysAdmin can still perform a Trace on that severed connection.

If unsuccessful, the trace has failed. The Detection Program may attempt to trace a connection each Phase.

b. Defending CPU attacks Defender's Software.

> *Power* * *+ Computer + Anti-Software Program Str + 3d6*
> *vs. Hacker's Intelligence + Hacking + Program Str + 10*

If successful, the target software application has crashed and erased from the hacker's Computer or Cyberdeck.

If unsuccessful, the attack failed to crash the application.

c. Defending CPU or SysAdmin attacks Intruder

> *Power* * *+ Computer + Anti-Personnel Program Str + 3d6 or*
> *Intelligence + Security + Anti-Personnel Program Str + 3d6*
> *vs. Intelligence + Hacking + Protection Program Str + 10*

If successful, the Anti-Personnel program has done damage directly to the hacker's brain (*STR - Protection STR in Hits*), only if connected via a Cyberdeck. On older non-cyber connections, treat attack as an Anti-System attack.

If unsuccessful, the attack failed to do any damage.

c. Defending CPU attacks Hacker's System.

> *Power* * *+ Computer + Anti-Sys Program Str + 3d6*
> *vs. Intelligence + Hacking + DataWall Str + 10*

If successful, the Anti-system software has caused the hacker's Computer or Cyberdeck to crash, ceasing all activity until the server can be re-initialized using a Restore Utility. The Intruder is immediately disconnected, but not logged off. The SysAdmin may attempt the trace the connection at any time.

If unsuccessful, the attack against the system failed.

by Christian Conkle

Glossary

Anti-Personnel Application: software meant to do damage to the actual Netuser. Only works in mileu that use Cybernetic interfaces.

Anti-Software Application: software meant to crash and delete other software applications.

Anti-System Application: software meant to crash or immobilize another computer's CPU.

Artificial Intelligence: an advanced computer capable of full interaction and decision-making.

Black Info/System: Top Secret information. Information that someone is willing to kill to keep secret. A Datafortress with deadly countermeasures such as Anti-Personnel software.

Central Processing Unit (CPU): The "brain" of the computer that processes software and data.

Codegate: a Cyberpunk 2020 term for an authentication mechanism or Firewall. Codegates could check name-password combinations, computer location (LDL), fingerprints, retinas, voice-prints, DNA, etc.

Cybermodem: A device that processes software applications and data directly in the user's brain as opposed to a computer CPU.

Datafile: any file that contains information. Datafiles can be text, graphics, video, audio, or full sensory VR simulations.

Datafortress: A Dataserver that restricts information to authorized users.

Dataserver: A futuristic term for a server, a computer which provides data upon request.

Datawall: A Cyberpunk 2020 term for a Firewall, a Datawall without a Codegate simply doesn't provide access to its protected information and must be defeated with Intrustion Software.

Decryption Software: Software designed to bypass Codegates by fooling it into providing access.

Detection Software: Software that periodically re-checks users on a server to authenticate access. If unauthorized access is discovered, the Detection Software notifies the SysAdmin or automatically deploys Anti-Personnel or Anti-System applications depending on how the Datafortress is set up.

Euro: The Cyberpunk 2020 unit of currency. For modern settings, simply replace with dollars.

Grey Info/System: Secret information. Information no one is willing to kill to keep secret. A Datafortress with non-lethal countermeasures such as Anti-System software.

Hacker: A generic term for anyone attempting to gain unauthorized access to restricted information of applications.

Hacking: Skill used by Hackers. In game terms, Hacking and Security are the same skill used for different purposes.

ICE: Intrusion Countermeasure Electronics, encompassing any software applications designed to prevent unauthorized access to a Datafortress.

Icon: A visual representation. In Cyberpunk 2020, refers to a 3D representation of a computer object. A file might be represented by an icon that, once clicked/grabbed/pushed/opened, will display the contents of that file. Often, events are represented by an icon. For instance, a SysAdmin might represent his presence on the server with an icon of a knight in armor. If the Hacker sees a knight in armor, then he knows the SysAdmin is logged onto the server.

Internet Corporation: A Cyberpunk 2020 creation meant to be a conglomerate of Net Access Providers. In the modern world, these would be comprised of several companies such as MCI, ATT, UUNet, etc.

Intrusion Software: Software meant to temporarily disable Datawalls, allowing access to the server. The disadvantage is that their use may alert Detection Software applications.

LDL: A Cyberpunk 2020 equivalent of the modern IP address. In Cyberpunk 2020, the LDL also serves as an all-purpose phone number, e-mail address, and voice-mail box.

Memory Unit: A Cyberpunk 2020 equivalent to Megabytes. It has no real-world conversion and was used in lieu of actual future memory sizes which can become dated quickly.

Mundane Info/System: Confidential information, but hardly a secret. Information that is restricted but isn't guarded by countermeasures. Datafortresses that employ Detection Software only.

The Net: The Cyberpunk 2020 equivalent of the Internet. The Cyberpunk 2020 Net is represented by a 3D full-sensory Virtual Reality. Other names for the Net include the Face, the Cybernet, the Interface, the Web, etc.

Net Access Provider: A company that rents temporary LDL's to Netusers. The Internet Corporation is a large Net Access Provider. NAP's generally cooperate with SysAdmins in discouraging Hacker activity. If an NAP is notified that one of their Netusers is possibly a Hacker, they will discontinue that Netuser's service. The futuristic equivalent of modern day Internet Service Providers.

Netuser: Anyone using the Net legally. The equivalent of the modern Net surfer.

by Christian Conkle

Power: A Fuzion game mechanic meant to be a relative measure of a computer's ability.

Security Level: A Fuzion game mechanic meant to represent the skill used by either a SysAdmin or Computer CPU to deter or capture Hackers. In game terms, Security and Hacking are the same skill used for different purposes.

Speed: A Fuzion game mechanic meant to be a relative measure of a computer's speed.

Stealth Software: Software that attempts to fool Detection Software into authenticating or ignoring an unauthorized Hacker.

Strength: A Fuzion game mechanic meant to be a relative measure of a program application's ability.

SysAdmin: The person in charge of maintaining a Datafortress' security.

Trace Value: The relative difficulty in tracing a connection's origin.

Virtual Reality Interface: Much like a modern Graphic User Interface (GUI), the VR Interface displays the computer's "Desktop" as a 3D interactive universe around the user. In Cyberpunk 2020, the Net can be accessed in such an interface, displaying Net LDL's as Icons around the user. The user moves freely about in this space, choosing the icon they wish by coming into contact with it with their hands. Their bodies are displayed to them as whatever the user wishes and programs much like a modern cursor, their hands acting as a mouse in space.

VR Construct: A 3D Icon in a VR Interface. A VR construct can be anything, limited only by the imagine of the creator. Its size is determined by how much memory it requires.

VR Sim: A VR Simulation. A tiny virtual universe. In Cyberpunk 2020, VR Sims can be interactive games, advertisements, network conference areas, or fantasy playgrounds. Any situation that requires being someplace you can't actually physically be can be solved with a VR Sim.

For more information on other Hacking and Netrunning systems, see:

Cyberpunk 2020 by Mike Pondsmith, R.Talsorian Games.

Bubblegum Crisis RPG by Benjamin Wright, R.Talsorian Games.

NETRUNNING RULES by syberman@syberman.demon.co.uk.

Skyfire Master Force by Gary Townsend, HERO Games.

How Hackers Break In… and How They Are Caught by Carolyn P. Meinel, Scientific American, October 1998.

Disclaimer

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I have the utmost respect for the creators of the original Cyberpunk and Cyberpunk 2020 and only wish to improve upon their outstanding work.