2020 CYBERPUNK

FUNCTIONS

Difficulties	Type
+15	**Alarm:** This function alerts the system or Netrunner to intrusion.
+20	**Anti-Compiler(Demon):** This function looks for the compiler function in a program.
+20	**Anti-IC:** This function attacks and destroys other program
+20	**Anti-Personnel:** This function attacks and kill's netrunners. The netrunner is either killed (takes damage), taken over or mind wiped.
+15	**Anti-System:** This function damage's or screw up a computer system.
+10	**Code Optimization:** Cut's the final MU of the program in half (round up). Tighter code-writing results in the use of less storage space.
+10	**Compiler(Demon):** This program manages other programs, and can reduce them in size by packing them tighter until needed.
+10	**Controller:** This function allows control of machines in realspace.
+10	**Decryption:** This function opens code's and lock's.
+10	**Detection:** This function detects intruding netrunner or program.
+10	**Disguise:** Allows program to take the identity of another program. This includes codes, passwords and ICON of the imitated program; a system's defensive program's will be fold into believing the program to be friendly. Monitor program's and sysop's get an interface check to spot the hidden nature of the program (Monitor's: system STR + interface + 1D10. Sysop's: INT + interface + 1D10; the disguised program gets it's program STR + INT 6 + 1D10)
+20	**Doppelganger:** Allows a program to absorb the functions of a program it has just destroyed in to the daemon itself (this requires leaving one of the program's subroutine slots empty). Doppelganger-equipped program's can't be told from the original whit out scanning their code (takes 3 turns; netrunner/sysop's programming skill roll Vs doppelganger's program STR + INT 6 + 1D10).
+10	**Evasion:** This function makes a program or the netrunner harder to trace.
+10	**Interactive:** This program acts like a person in a virtual reality; it walks, moves around, manipulates object's in virtual construct, when combined whit pseudo-intellect and conversation ability it can act much like a real person inside a virtual reality.
+15	**Intrusion:** This function allows program/netrunner to get through datawalls.
+20	**Multi Tasking:** Lets a program to operate whit more that one program on the same CPU. For every program over #CPU there is +10% chance for any software to crash on a critical moment. This option will steel some processing power. Decrease deck speed(Round up)=(running program / #CPU).
+10	**Protection:** This function stops attacks to netrunner's or deck's.
+10	**Stealth:** This function makes the program or netrunner harder to detect.
+10	**Utility:** This function restores damaged program's, copies thing's, improves deck speed, reads file and does general librarian works.

OPTIONS

Difficulties	Type
+3	**Auto Re-Rez:** The program can reconstruct it self even if destroyed by rolling a 5 or 6 on 1D6.
+3	**Conversation Ability:** The program can speak.
+6	**Copy Protection:** Will see to that one can not make a copy of the program.
+3	**Endurance:** The program is tireless and will never quit unless destroyed.
+1	**ICON(simple):** The program has a visible cartoon icon in the Net.
+2	**ICON(contextual):** The program has a Net ICON about the graphic level of a high-res computer image.
+3	**ICON(fractal):** The program has some what realistic Net ICON, whit shading, texture and sensation.
+4	**ICON(photorealistic):** The program has a very realistic ICON about the level of a good video image or movie.
+5	**ICON(superrealistic):** The program has a ICON that looks like real person or object.
+3	**Invisibility:** The program is +2 Strength to evade detection.
+5	**Memory:** The program can remember specific events and people.
+5	**Movement ability:** The program can move freely throughout the Net while it's main programming remains in memory.
+6	**Pseudo-intellect:** The program can think like a real person of INT 6.
+2	**Recognition:** The program can distinguish between different netrunner signals and program.
+2	**Speed:** The program adds +2 to decks speed when runs.
+2	**Trace:** The program can follow another program or netrunner through the Net.

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STRENGTH

Strength is the power of the program. The higher a program's Strength, the more capable it is of fulfilling it's functions. Strength is rate from 1 to 10. most program use are around 3 or 4 in strength.
Add the strength to difficulty cost

PROGRAM SIZE

Program size is determined by difficulty . Check the table below for the difficulty number, then read across for the size in MU(Memory Unit).

Difficulty	MU	Difficulty	MU	Difficulty	MU
10-15	1	61-65	11	111-115	21
16-20	2	66-70	12	116-120	22
21-25	3	71-75	13	121-125	23
26-30	4	76-80	14	126-130	24
31-35	5	81-85	15	131-135	25
36-40	6	86-90	16	136-140	26
41-45	7	91-95	17	141-145	27
46-50	8	96-100	18	146-150	28
51-55	9	101-105	19	151-155	29
56-60	10	106-110	20	156+	30

TIME TO WRITE

For every point of Difficulty involved in the program, it will take 6 hours of work. The work need not bee continues and it may be divided between netrunners if more than one is involved in the process.

THE COST

Often, program's are purchased on the market rather than written at home. To determine the base cost of a program, Multiply the Difficulty by 10 E.B. Multiply this value by the modifier below for the type of program

Type	Modifier
Intrusion, Decryption control, Utilities	1* Cost
Detection & Evasion	2* Cost
Anti-System	3* Cost
Anti-IC	4* Cost
Anti-Personnel	25* Cost

DEMONOLOGY

More about Demons see book 2020 page 159.

DAEMONOLOGY

More about Daemons see book Chrome3 page 58.

GLITCHES

A new program can have some glitches. Look at table below.

From Black Hammer Project

Beta-Edition Software

A majority of major net software (#of MU's x 7% chance) has Beta-Test editions floating around of either the next upgrade or of the previous edition. These softs range from free to cheap to purchase, and are commonly available at CrystalJock BBSs for download. Beta-Test softs will cost (2d6x10%) less than the normal soft, but will have 3 glitches rolled on the Glitch Table, each at -10%, and treating results under 6% as "No Glitch".
Hey Choomba, you get what you pay for, and Your Mileage May Vary.

ShareWare Software

And of course, if you can't get the Beta-release there's always the chance that a shareware edition of the soft exists. Multiply the number of MU's of the soft by 15% for the chance that the software does **not** have a shareware edition out. Shareware editions are available for either half-cost or free.
Half-cost editions roll twice on the following table. These softs are generally not entirely crippled, but are still not up to the standard of quality provided by the company's normal software.
Free editions roll five times on the shareware table. These softs are usually fairly close to crippled before being released to the public.

Roll	Problem
1-2	**-2 Speed** - Nag Screens bug you whenever you try to use this soft.
3-4	**+1 MU** - The code has not yet been cleaned up and contains all the REM lines and some useless graphical content that was supposed to be cut from the final edition.
5	**10 uses** - The software will stop working and delete itself after 10 uses.
6	**1 use** - The software will only work once each netrun.
7-8	**-2 Strength** - The soft does not operate at the full strength as the commercial version.
9	**Modified Icon** - The icon of this soft contains VERY large advertising for the software company, often describing the extra features available on the full edition. Alerts all programs and runners within 10 squares of your presence when used.
10	**Trace** - The soft sends trace signals to the company that made it to convince you to register. This reduces the trace value of all LDLs by 1.

Software Glitches?

When coding software, GM's should roll for the player to determine if the coding succeeded. For every 3 points the roll is under the difficulty of the program, one glitch is hidden inside the software. Most of these glitches will not be immediately apparent, but will turn up during netruns, often at the least opportune moments.
Glitches will also occur in softs after net botches
For each glitch called for roll D100 on the following table

NR	Roll	Glitch
1	01-05	Does not function on any other deck.
2	06-09	Does not function on decks with 1 other program type (1:Utility, 2:Anti-Personnel, 3:Anti-System 4:Anti-Program, 5:Detection, 6:Protection).
3	10-11	Loses 1 non-icon option / 2 uses
4	12-16	Resource Hog (speed -1)
5	17-20	Noisy! 5 square alert
6	21-25	Increase in size by 1 MU
7	26	Reduce STR by 1 every 2 uses
8	27-29	Icon Degredation 1 Class
9	30-34	Missing 1 non-icon option
10	35	Does not function with 20% of decks.
11	36	Does not function against 10% of other programs
12	37-40	Program Corruption, 10% chance program will not run when rezzed
13	41	Cannot be copied
14	42-44	Resource Pig (speed -2)
15	45	Every time copied, roll again on table for copy
16	46-48	Real Noisy! 15 square alert
17	49-51	Increase in size by 2 MU
18	52	Does not function against 50% of other programs
19	53-56	Program Corruption, 50% chance program will not run when rezzed
20	57-58	Reduce STR by 1 each use
21	59-61	Icon Degredation 2 Classes
22	62	Easily Traced (-2 on your trace dif)
23	63	Cannot be compiled (in demons or compiler softs)
24	64-65	If ever multitasked, crashes 100%
25	66-67	Terminate-Stay-Resident (speed -2 after use)
26	68-71	Severe Corruption, 25% chance program will not run when rezzed, when program fails to rez roll again on table for new glitch
27	72	Easily Traced (-4 on your trace dif)
28	73-74	Any program run AFTER this soft has 20% chance of crashing.
29	75-77	Vulnerable to other programs (-4 str vs attacks)
30	78-79	Flatline, 15% chance when rezzed, deck crashes
31	80	Every time copied, roll again on table for original and copy
32	81-82	Everytime program is compiled, roll again on glitch table
33	83	If ever multitasked, roll again for d3 new glitches
34	84-85	Windoze95 compliant (speed -5)
35	86	Is that a pile driver in your pocket...? 40 square alert
36	87-88	Increase in size by 1 MU / use (reverse-compiled)
37	89	Icon Degredation 1 Class / use
38	90-91	Missing all non-icon options
39	92-94	Damaged Rebuild Code, 20% per use that it erases _all_ data and softs on deck, deck crashes.
40	95-96	Flatline Deluxe, 15% chance when rezzed, deck crashes, all softs on deck gain 1 glitch.
41	97-100	Critical Corruption, 75% chance program will not run when rezzed, when program fails to rez, roll again on table for new glitch, 25% chance each other soft in deck gains 1 glitch.