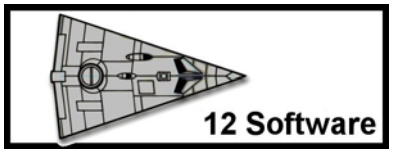
Software

The heart of the computer is its software. Each major component and many housekeeping functions are managed by computers controlled by Processes dedicated software packages that relieve people of the burden of day-to-day activities.



COMPUTER PROCESSES

The software that drives a computer is the Process. Each Process addresses a specific function and manages it within the computer.

There are three types of Processes:

System. The Operating System for a Computer. Every Computer requires an Operating System Process.

Component. The governing Process for a Component.

Service. A Process providing support or information.

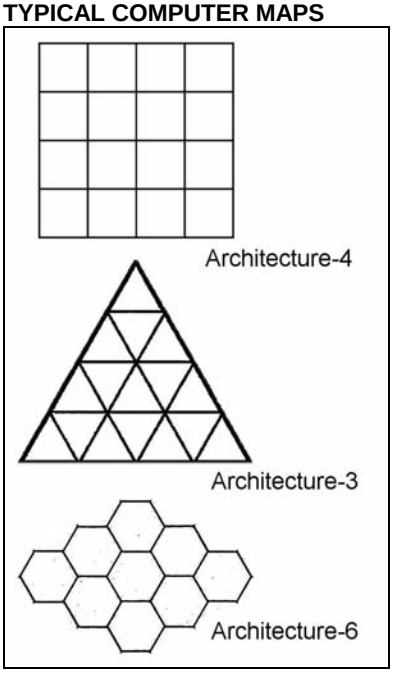
Redundant

Three identical Processes allow a Computer to automatically ignore a computing failure by one of the three.

Brain Tonnage. A Brain is installed in an existing Cell, so while the Brain itself is about 1 or 2 liters, it is part of a larger Cell.

Free Cells. A system operates most efficiently if it has free Cells equal to installed Processes. If the Computer has fewer than one empty cell per operating Process, output is delayed one Round.

TYPICAL COMPUTER MAPS



SYSTEM PROCESSES

M	Type	Process	TL	KCr	C	S
3.1	Console	Process	7	50		
XP	Console XP	Process	8	50		
	Conversational	Process	9	100		
XS	Expert System	Process	10	200		
SA	Self Aware	Process	14	300		
S0	Semi-Organic	Brain-0	10	100	1	1
S1	Semi-Organic	Brain-1	11	400	1D	1D
S2	Semi-Organic	Brain-2	12	800	2D	2D
S3	Semi-Organic	Brain-3	14	1200	3D	3D
P0	Positronic	Brain-0	11	400	1	1D
P1	Positronic	Brain-1	12	900	1D	1D
P2	Positronic	Brain-2	13	1500	2D	2D
P3	Positronic	Brain-3	15	2000	2D	3D
AI-16	Artificial Intelligence	Process	16	2000	1D	1D
AI-18	Artificial Intelligence	Process	18	3000	2D	2D
AI-20	Artificial Intelligence	Process	20	4000	2D	3D
AI-22	Artificial Intelligence	Process	22	5000	3D	3D

Each computer (Local or Master) requires a System Process. It must be installed in the computer is controls. It occupies one Cell.

COMPONENT AND SERVICE PROCESSES

Process	Type	TL	Cells	KCr	C	S
Drive	Component	=Jump	1	=TL		
Power Plant	Component	=PPlant	1	=TL		
Sensor	Component	=Sensor	1	=TL		
Weapon	Component	=Weapon	1	=TL		
Defense	Component	=Defense	1	=TL		
Guidance	Component		1	10		
Life Support	Service		1	10		
Data Base	Service		1	10		
Accounting	Service		1	10		
Astrogation	Service		1	10		
Medical	Service		1	10	2D	1D
Entertainment	Service		1	10		
Library Data	Service		1	10		
Security	Service		1	10		
Maintenance	Service		1	10		
Damage Control	Service		1	10	1D	1D

Component Processes must be installed in the Computer which controls the Component. The System Process is the controlling software for the computer.

Distributed Processing. Service Processes may be installed in any available Cell in any computer.

COMPUTER MAPS

The interior of a computer can be mapped. It shows the Computer's Cells on a grid based on the computer Architecture.

Architecture-N. Architecture is the number of connections between cells. Architecture-4 connects a cell to 4 adjacent cells; Architecture-9 indicates connections to 9 adjacent cells.

Architecture-3 is triangles; Architecture-4 is squares; Architecture-6 is hexagons.

Many possible architectures exist: for example, Architecture-9 wrapped to a cylinder; Architecture-5 mapped to a sphere.

Standard Imperial Computer Architecture is a compact bounded flat plane with a square grid (Architecture-4).