**Building Fig-Forth**

**Intro**

The Fig-Forth program is a modular system based on a kernel in assembler and additional building blocks in Forth. Currently there are 2 recomended builds

* FORTH-E.COM the complete Forth incl. Full screen editor
* FKernel .COM Forth kernel incl. DOS to build standalone applications

**HowTo build Forth**

1. Assemble the required source code of the kernel
2. Load the required DOS module.

Here comes a challenge. Since the kernel does not have DOS support, the kernel alone can not load Forth source files to the RAM disc to compile them. However the DOS block is a Forth code file.

To overcome this obstacle, the are 2 options

* Use a preexisting Forth system to load the code with OPEN xxx.BLK. Then quit Forth with BYE. Start the new kernel from CPM-65. The RAM disc with the Forth DOS program will not be touched by this and can then be compiled by 3 LOAD
* Alternatively you can load the Forth DOS code to memory with DEBUG xxx.BLK and then move the code to the RAM disc at $800 with M8000,2000,4000. Then leave DEBUG and start the new kernel. Compile the code by 3 LOAD

1. Now you need to do the compiler security check:  
     
     
     
     
     
     
     
     
     
     
     
     
   Hopefully at this point there are no errors. In case the kernel source was modified, it can happen, that a indirect jump addres is at $xxFF, leading to a misjump. This will the affected word cause to crash. It is then up to the programmer to inject extra bytes at the appropriate location of the code to avoid this. CS will supply the needed information.

OPEN CS.BLK  
3 LOAD  
CS

1. Now load and compile at remaining Forth blockst o complete your system
2. Write the complete system to disc with SAVE-SYSTEM [filename].com. Be aware, that [filename].COM must not exist on disk.

Ready – have fun with your new FORTH

**FORTH builds**

Standard system:

* FORTH.ASM - the kernel
* DOS.BLK - CPM-65 file handling
* PSTACK.BLK - non destructive stack output for debugging
* RND.BLK - pseudo random number generator
* VED.BLK - full screen editor
* GRAPHICS.BLK - VDU graphics support

Kernel for standalone applications

* FORTHKRN.ASM - minimal kernel without LIST, VLIST, TRIAD
* DOSCORE.BLK - minimal CPM-65 file handling, OPEN & AUTOEXEC commands