**VFORTH Description**

VFORTH is a 32 bit Forth derivative. Its initial platform is a simple 32 bit virtual machine.

Like OCF (and like Chuck Moore’s 1970 FORTH version !), all words are executed. Words have two forms, which are distinguished between using a bar prefix.

DUP Executes a DUP

|DUP Executes the code that compiles a DUP. Call to DUP or inline code.

RFORTH code is driven by either Color (like Color FORTH) or Syntax as follows. Color FORTHs colour scheme is kept, but this is not Color Forth. Code is compiled to ‘object code’.

Executable Words

Directly executed words are in underline and/or Yellow.

In the example above DUP or DUP will execute DUP. A numeric constant will be pushed on the stack.

Compiled Words

Words that are compiled into the dictionary are in normal font and/or Green.

In the example above DUP or DUP will execute |DUP rather than DUP. This will normally either compile a call to DUP, or generate the inline code for DUP, but it also allows for words that are executed at Compile time. If (say) |IF exists but IF does not, then IF cannot be run directly, only in compile mode.

A numeric constant will cause code that generates that literal to be pushed on the stack. The dictionary is checked first. This will be presented to the system as |42 – compiles the code to push 42 on the stack – using the same syntax.

Dictionary Entries

Dictionary Entries are in bold and/or red. So **DROP** or DROP both define a word DROP. This does not put anything in code merely puts a reference in the dictionary (or overrides a currently existing one). So code like 8\* 2\* 4\* 2\* 2\* ; works. It will actually – record a reference to 8\*, compile the code for 2\* whatever that is, record a reference to 4\* and compile the code for 2\* twice, followed by the code for return. Compilation will be done by |2\* and |; respectively. The ASCII equivalent for Dictionary code is || (e.g. ||DROP)

Comments

Comments are in italics and/or white. So *this Is a comment* and so is this. Comments by convention are *italicised like this* in editors (e.g. Kompozer or Blue Griffon) if the display system supports it. Obviously it has to support either bold/italic/underline or colour. Commented code is surrounded in {} in ASCII format.

CSS Styling

<style type="text/css">  
em {

color: white;

}  
body {

font-size:x-large;  
font-family:consolas,tahoma,sans-serif;  
color: green;  
background-color:black;  
}  
strong {  
color: red;  
}  
u {  
text-decoration:none;  
color:yellow;  
}  
</style>

Code can be written in HTML editors that support italic bold underlined rendering as WYSIWYG (it will still work with <em>code</em> tags but it won’t be very readable. I have had success with both Kompozer and Blue Griffon.

The CSS on the right, when inserted at the top of a HTML file, makes it into a “Color FORTH” editor in ASCII.

A script will be created which takes the HTML and converts it to the DROP |DROP 64 |64 format as appropriate.