

Microcode Syntax:

```
<decdigit> ::= {0}{1}{2}{3}{4}{5}{6}{7}{8}{9}
<decval> ::= <decval>[<decval>]
<hexdigit> ::= {0}{1}{2}{3}{4}{5}{6}{7}{8}{9}{A}{B}{C}{D}{E}{F}{a}{b}{c}{d}{e}{f}
<hexval> ::= <hexdigit>[<hexval>]
<labelstr> ::= {_}{$_}{a}{b}{c}{d}{e}{f}{g}{h}{i}{j}{k}{l}{m}{n}{o}{p}{q}
               {r}{s}{t}{u}{v}{w}{x}{y}{z}
<labelchr> ::= {<labelstr>}{0}{1}{2}{3}{4}{5}{6}{7}{8}{9}{0}
<label> ::= <labelstr>[{<labelchr>}{<label>}]
<comment> ::= ;<text>

<directive> ::= {.loc <hexval>}
               {.end}

<const> ::= {0}{-1}
<unaryop> ::= {++}{--}{~}{2*}
<binaryop> ::= {+}{-}{&}{|}{^}{!}

<dstreg> ::= {NODEST}{AC}{PC}{MAR}{MWR}{PR}{TTY}{IR}
<srcrega> ::= {AC}{PC}{MEM}{MAR}{IR}{PAGEDADDR}{ROL}{ROL}
<srcregb> ::= {AC}{MEM8}{MEM}{TTY}{SWREG}{ASR}{RORC}{ROR}
<carryin> ::= {C}{AC11}{0}{1}
<setcarry> ::= SC
<assignment> ::= <dstreg> <- {<const>}[{<unaryop>}<srcrega>]{<srcregb>}
                 {<srcrega><binaryop><srcregb>[,<carryin>][,<setcarry>]}

<relative> ::= .[+]{-}<decval>]
<target> ::= {<relative>}{<label>}
<condition> ::= {br}{brex}{brnex}{brenx}{brnenx}{brdep}{brndep}
                 {brdpnx}{brndpnx}{brst}{bnrst}{brcon}{brncon}
                 {brstep}{brnstep}{brload}{brnload}{brstop}{brnstop}
                 {bz}{bnz}{bcc}{bcs}{bn}{bnn}{bdr}{bndr}{btbe}{btbf}
<branch> ::= <condition> <target>

<nibble> ::= {hi}{mid}{lo}
<dispatch> ::= dispatch <nibble> <target>

<write> ::= WRITE

<statement> ::= {<directive>}
                {[<label>:]
                 [{<assignment>}{<branch>}{<dispatch>}[,<write>]]{<write>}}]
                [<comment>]<crlf>
<program> ::= <statement>[<program>]
```