gputils 0.10.0

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Contents

Introduction

gputils is a collection of tools for Microchip (TM) PIC

```
tree.hex: tree.asm treedef.inc
        gpasm tree.asm
```

This will rebuild "tree.hex" whenever either of the "tree.asm" or "treedef.inc" files change. A more comprehensive example of using gpasm with makefiles is included as example1 in the gpasm

base	**general** syntax	21 decimal written as
binary	B'[01]*'	B'10101'
octal	O'[0-7]*'	O'25'
decimal		

1.3.3 Conditional assembly

The IF, IFNDEF, IFDEF, ELSE and ENDIF directives enable you to assemble certain sections of code only if a condition is met. In themselves, they do not cause gpasm to emit any PIC

```
        IF (this) ; {
          ...
        ELSE      ; }{
          ...
        ENDIF     ; }
```

After you've done this, you can use your text editor's show-matching-brace to check matching parts of the IF structure. In vi this command is "%", in emacs it's M-C-f. 65 0 Ta

DA

```
<label> DA <expression> [, <expression]*
```

Stores Strings in program memory. The data is stored as one 14 bit w TJE.07302 0 Td (ord)Tj 16.4196 0 Td (representing)Tj 5

ENDC

```
ENDC
```

Marks the end of a CBLOCK.
   See also: CBLOCK

ENDIF

```
ENDIF
```

Ends a conditional assembly block.
   See also: IFDEF, IFNDEF, ELSE, ENDIF

ENDM

```
ENDM
```

Ends a macro definition.
   See also: MACRO

ENDW

```
ENDW
```

Ends a while loop.
   See also: WHILE

EQU

```
<label> EQU <expression>
```

EXITM

```
EXITM
```

Immediately return from macro expansion during assembly.
    See also: ENDM

EXPAND

```
EXPAND
```

Expand the macro in the listing file.
    See also: ENDM

FILL

```
<label> FILL <expression>,<count>
```

GeneILL

option	description
b=nnn	Sets the tab spaces
e=[ON|OFF]	Macro expansion on or off
f=<format>	Set hex file be inhx8m, inhx8s, inhx16, or inhx32.
mm=[ON|OFF]	Memory Map on or off
n=nnn	Sets the number of lines per page
p = <symbol>	Sets the current processor
r= [oct | dec | hex]	
st = [ON | OFF]	Symbol dump on or off
w=[0 | 1| 2]	Sets the message le

See also: NOLIST, RADIX, PROCESSOR

LOCAL

```
LOCAL <symbol>[[=<expression>], [<symbol>[=<expression>]]*]
```

Declares <symbol> as local toC 1 ID i53Oas68 s68s0 c8710 Td Ihat' 0 Td7orymessa55>2]7Tj 21.817beingd (tabl286j 16.786defined. Td

CHAPTER

1.4.2   Instruction set summary

12 bit Devices (PIC12C5XX)

Syntax	Description
ADDWF <f>,<dst>	Add W to <f>, result in <dst>
ANDLW <f>,<dst>	And W and literal, result in W
ANDWF <f>,<dst>	And W and <f>, result in <dst>
BCF <f>,<bit>	Clear <bit> of <f>

BS1.34980.1539 0 Td (<f>,<bit>)Tj ET Q q 4.8 0 0 -120 1876.68 6202.68 cm BI /IM true /W 1 /H 1 /BPC 1 ID EI Q q 10 0 0

14 Bit Devices (PIC16CXX)

Syntax	Description
ADDLW <imm8>	Add immediate to W
ADDWF <f>,<dst>	Add W to <f>, result in <dst>
ANDLW <f>,<dst>	And W and <f>, result in <dst>
BCF <f>,<bit>	Clear <bit> of <f>
BSF <f>,<bit>	Set <bit> of <f>
BTFSC <f>,<bit>	Skip next instruction if <bit> of <f> is clear
BTFSS <f>,<bit>	Skip next instruction if <bit> of <f> is set
CALL <addr>	

Special macros

There are also a number of standard additional

gpasm encountered a divide by

1.5.2 Warnings

201 Symbol not previously defined.

The symbol being #undefined was not previously defined.

202 Argument out of range

The argument does not fit in the allocated space.

211 Extraneous arguments

Extra arguments were found on the line.

215 Processor superseded by command line

The processor was specified on the command line and in the source file.

The ID locations value specified is too large.

305 Using default destination of 1 (file).

No destination was specified so the default location was used.

308 Warning level superseded by command line

The warning level was specified on the command line and in the source file. The command line has precedence.

309 Macro expansion superseded by command line

Macro expansion was specified on the command line and in the source file. The command line has precedence.

Chapter 3

gplink

gplink is a new and incomplete tool. When complete, it will provide the ability to link relocatable objects to produce an executable object.

```
gpvo test.obj > test.dump
```

This redirects the output to the file "test.dump".

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