

**NAME**

t1asm – assemble PostScript Type 1 font

**SYNOPSIS**

**t1asm** [-a|-b] [-l *length*] [*input* [*output*]]

**DESCRIPTION**

**t1asm** assembles Adobe Type 1 font programs into either PFA (hexadecimal) or PFB (binary) formats from a human-readable form. If the file *output* is not specified output goes to the standard output. If the file *input* is not specified input comes from the standard input.

**t1asm** tokenizes the charstring data and performs eexec and charstring encryption as specified in the “black book,” *Adobe Type 1 Font Format*.

The input must have a line of the form

```
!-!{string currentfile exch readstring pop}executonly def
```

which defines the command, in this case ‘-!’, that is to start charstring data. It is an error not to define such a command. Another common name for this command is ‘RD’.

After the start of the **Subrs** array in the input, all open braces ‘{’ not in a comment begin a charstring. Such a charstring is terminated by the next non-comment close brace ‘}’. Within such a charstring, only comments, integers, and valid charstring commands are allowed. Valid charstring command names can be found in *Adobe Type 1 Font Format* and other documents describing the newer Type 2 opcodes. The format within a charstring is unimportant as long as integers and commands are separated by at least a one white-space (space, tab, newline) character. Note that within charstrings, comments are discarded because they cannot be encoded.

**OPTIONS**

**--pfa, -a**

Output in PFA (ASCII) format.

**--pfb, -b**

Output in PFB (binary) format. This is the default.

**--block-length=num, -l num**

PFB only: Set the maximum output block length to *num*. The default length is as large as memory allows.

**--line-length=num, -l num**

PFA only: Set the maximum length of encrypted lines in the output to *num*. (These are the lines consisting wholly of hexadecimal digits.) The default is 64.

**EXAMPLES**

```
% t1asm Utopia-Regular.raw > Utopia-Regular.pfb
```

```
% t1asm -a Utopia-Regular.raw > Utopia-Regular.pfa
```

**SEE ALSO**

**t1disasm(1)**, **t1ascii(1)**, **t1binary(1)**, **t1unmac(1)**, **t1mac(1)**

*Adobe Type 1 Font Format* is available free from Adobe as a PDF file. [http://partners.adobe.com/asn/developer/PDFS/TN/T1\\_SPEC.PDF](http://partners.adobe.com/asn/developer/PDFS/TN/T1_SPEC.PDF)

*The Type 2 Charstring Format*, also available from Adobe as a PDF file, describes the newer Type 2 operators, which are also used in some multiple-master Type 1 fonts like Adobe Jenson and Kepler. <http://partners.adobe.com/asn/developer/PDFS/TN/5177.Type2.pdf>

**AUTHORS**

Lee Hetherington (ilh@lcs.mit.edu)

Eddie Kohler (ekohler@gmail.com)