

NAME

srec_ascii_hex – Ascii-Hex file format

DESCRIPTION

This format is also known as the *Ascii-Space-Hex* or *Ascii-Hex-Space* format. If you know who invented this format, please let me know. If you have a better or more complete description, I'd like to know that, too.

The file starts with a start-of-text (STX or Control-B) character (0x02). Everything before the STX is ignored.

Each data byte is represented as 2 hexadecimal characters, followed by an "execution character". The default execution character is a space, although many programs which write this format omit the space character immediately preceding end-of-line.

The address for data bytes is set by using a sequence of $\$Annnn$, characters, where *nnnn* is the 4-character ascii representation of the address. The comma is required. There is no need for an address record unless there are gaps. Implicitly, the file starts a address 0 if no address is set before the first data byte.

The file ends with an end-of-text (ETX or Control-C) character (0x03). Everything following the ETX is ignored.

It is also possible to specify a running 16-bit checksum using a sequence of $\$Snnnn$, characters, although this usually appears *after* the ETX character and is thus often ignored.

Variant Forms

In addition to a space character, the execution character can also be percent (%) called "ascii-hex-percent" format, apostrophe (') or comma (,) called "ascii-hex-comma" format. The file must use the same execution character throughout.

If the execution character is a comma, the address and checksum commands are terminated by a dot (.) rather than a comma (,).

Size Multiplier

In general, binary data will expand in sized by approximately 3.0 times when represented with this format.

EXAMPLE

Here is an example ascii-hex file. It contains the data "Hello, World" to be loaded at address 0x1000.

```
^B $A1000,
48 65 6C 6C 6F 2C 20 57 6F 72 6C 64 0A ^C
```

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srec_cat version 1.47

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AUTHOR

Peter Miller E-Mail: pmiller@opensource.org.au
 ^\^* WWW: http://miller.emu.id.au/pmiller/