NAME

srec_tektronix_extended – Tektronix Extended hexadecimal file format

DESCRIPTION

This format allows binary files to be uploaded and downloaded between two computer systems, typically between a computer system (such as a PC, Macintosh, or workstation) and an emulator or evaluation board for microcontrollers and microprocessors.

The Lines

Lines always start with a percent (%) character. Each line consists of 5 fields. These are the length field, the type field, the checksum, the address field (including address length), and the data field.

The Fields

%	Length	Type	Checksum	Address	Data

Record Length

The record length field is a 2 character (1 byte) field that specifies the number of characters (not bytes) in the record, excluding the percent, the length field, the type field and the checksum.

Type   The type field is a 1 character field that specifies whether the record is data (6) or termination (8).

Checksum

The checksum is an 2 character (1 byte) field that represents the sum of all the nibbles on the line, excluding the checksum.

Address   This is a 9 character field. The first character is the address size; it is always 8. The remaining 8 chgaracters are the 4-byte address that specifies where the data is to be loaded into memory.

Data   The data field contains the executable code, memory-loadable data or descriptive information to be transferred.

Record Types

6   A record containing data. The data is placed at the address specified.

8   A termination record. The address field may optionally contain the address of the instruction to which control is passed. There is no data field.

Size Multiplier

In general, binary data will expand in sized by approximately 2.5 times when represented with this format.

EXAMPLE

Here is an example Tektronix extended file. It contains the data "Hello, World" to be loaded at address 0x006B.

```
%256D980000006B48656C6C6F2C20576F726C64210A
%09819800000000
```

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srec_cat version 1.47

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