

## Interface File

This file does not contain true object code, but data which can be loaded and converted to machine code by the loader. The format for the first and all succeeding records, except for the last record, is as follows:

; n1n0 a3a2a1a0 (d1d0)1 (d1d0)2...(d1d0)23 x3x2x1x0

Where the following statements apply:

1. All characters (n,a,d,x) are the ASCII characters zero through F, each representing a hexadecimal digit.
2. The semicolon is a record mark indicating the start of a record.
3. n1n0        The number of bytes of data in this record (in hexadecimal). Each pair of hexadecimal characters (d1d0) represents a single byte.
4. a3a2a1a0    The hexadecimal starting address for the record. The a3 represents address bits 15 thru 12, etc. The 8-bit represented by (d1d0)1 is stored in address a3a2a1a0; (d1d0)2 is stored in (a3a2a1a0) + 1, etc.
5. (d1d0)       Two hexadecimal digits representing an 8-bit byte of data. (d1 = high-order 4 binary bits and d0 = low-order 4-bis). A maximum of 18 (Hex) or 24 (decimal) bytes of data per record is permitted.
6. x3x2x1x0    Record check sum. This is the hexadecimal sum of all characters in the record, including the n1n0 and a3a2a1a0, but excluding the record mark and the check sum of characters. To generate the check sum, each byte of data (represented by two ASCII characters) is treated as 8 binary bits. The binary sum of these 8-bit bytes is truncated to 16 binary bits (4 hexadecimal digits) and is then represented in the record as four ASCII characters (x3x2x1x0).

The format for the last record in a file is as follows:

; 00 c3c2c1c0 x3x2x1x0

1. ; 00        Zero bytes of data are in this record. The zeros identify this as the final record in a file.
2. c3c2c1c0    This represents the total number of records (in hexadecimal) in this file, NOT including the last record.
3. x3x2x1x0    Check sum for this record.