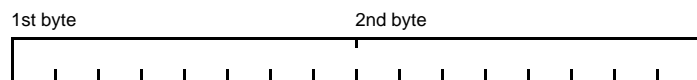## ".bits" file format:

Designed by Martin Newell and Lyle Ramshaw
Created by Magic Versatec Output Module.
Input to Oliver, which drives Versatec Plotter.
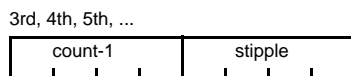
First a 16-bit word, with a single integer number:

1st byte   2nd byte

Number of pixels per scan line.

Constraint:
    Must be a multiple of 4 (necessary because of subsequent encoding).

Then, a succession of bytes of the format:

3rd, 4th, 5th, ...

| count-1 | stipple |

Provide count (where 1 <= count <= 16) repetitions of four-bit stipple pattern.
The MSB of stipple prints to the left of the LSB.
"0" = white; "1" = black.

Constraint:
    A run expressed by bytes of this form must not run across a scanline boundary.
   Each scanline (of length specified above) must be completely filled.

Then the end of the file (nothing special here).

".ram" file format:

Designed by Rich Pasco
Created by Magic Ramtek Output Module.
Input to Aries, which drives Ramtek Plotter.

A repetition of scan lines, where each scan line is a run-length encoded structure as follows:

First, a succession of words of the form:

1st byte   2nd byte

| count (MSB ... LSB) | left pixel B C M Y | right pixel B C M Y |
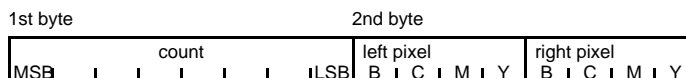
1st byte: Specify count (where 1 <= count <= 255) repetitions of stipple defined by second byte.
    A run of stipples expressed by a word of this form must not extend across a scanline boundary.

2nd byte: Specify a 2-pixel-wide by 1-pixel-high by 4-color-deep stipple pattern, where:
    "0" = white; "1" = color. "B" = Black; "C" = Cyan; "M" = Magenta; "Y" = Yellow.

Then a single word of the form:

1st byte   2nd byte

| 0 0 0 0 0 0 0 0 | 0 0 0 0 0 0 0 0 |
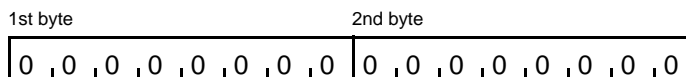
Designates the end of a scan line.
A scan line need not be completely filled before this end-of-line designator.
If an end-of-scan-line byte comes before the line is completely filled, the remainder of the line is white.
The printer is only 918 pixels (459 stipples) per scanline. Longer lines will be truncated.
The last word in the file must be this "end-of-line" designator.

| XEROX PARC | Project: VLSI | Title: ".ram" file format | File: RamFileFormat.Sil | Designer: Pasco | Rev: A | Date: 9/25/81 | Page: 01 |