Edge to Edge Printing

Typically, the D640 printer enforces a 1/6" unprintable area around the edge of any page. This is the factory default and produces the best looking output. There may be some cases where you don't want this border. The D640 supports edge-to-edge printing which allows you to extend printing to the edge of the physical page.

Note

The print quality is not consistent within 1/6" of any edge. This is especially true for the trailing edge of the second side in duplex printing. For this reason, Hewlett-Packard cannot guarantee print quality within this 1/6" area. Your Hewlett-Packard warranty and service contract does not cover service calls related to printing within this 1/6" area.

The quality and squareness of the paper determine print quality when printing close to the physical paper edge. In general, you may experience degraded print quality within 0.25 inches of any paper edge. When printing in duplex you may need to compensate for shrinkage and curl that may occur when the first side is printed. Lighter weight and recycled papers tend to shrink more than heavier weight paper.

For edge-to-edge printing, first turn off the clip setting in the Configuration Menu or send the appropriate PJL command. Then, set the logical page size to the physical page size using PCL commands. (See example below.)

```
@PJL SET CLIP=OFF<EOL>    ;allow printing near edges

<ESC>%-12345X

<ESC>%-12345X@PJL ENTER LANGUAGE=PCL<EOL>

<ESC>E

<ESC>&l6A                 ;select ledger size

<ESC>&a10W                ;define page to be edge-to-edge

0x00 0x00                 ;left offset is 0

0x00 0x00                 ;top offset is 0

0x01 0x00                 ;orientation is landscape

0x2F 0xD0                 ;width is 0x2FD0 decipoints

0x1E 0xF0                 ;height is 0x1EF0 decipoints

<ESC>&l0E                 ;set top margin to 0

<ESC>&a0L                 ;set left margin to 0
```

If you define text to start printing at location 0,0 it will print off of the logical page. This may or may not be on the physical page. Figure 1 describes the physical and logical page formats.

The following escape sequence allows you to define the logical page:

```
<ESC> & a # W[binary data]
```

Where # is the number of bytes of binary data following the terminator.

The default value for # is = NA.

The range for # is = 4,10.

The binary data describes the logical page format as shown below:

Table 2 Logical Page Format

Byte	15 (MSB) 8	7 0 (LSB)	Byte
0	Left Offset		1
2	Top Offset		3
4	Orientation	Reserved (0)	5
6	Width		7
8	Height		9

Left Offset Specifies (in integer decipoints) the location of the left edge of the logical page with respect to the left side of the physical page in the selected viewing orientation. The range of values is -32767 to 32767.

Top Offset Specifies (in integer decipoints) the location of the top edge of the logical page with respect to the top edge of the physical page in the selected viewing orientation. The range of values is -32767 to 32767.

Orientation This is the viewing orientation of the logical page with respect to the physical page. Values may be 0 (portrait), 1 (landscape), 2 (reverse portrait), or 3 (reverse landscape). All other values reset the logical page definition leaving the logical page as it was previously defined.

Reserved Byte A byte which must be present in the data stream and must be equal to zero.

Width Logical page width is defined in decipoints. A zero width causes the logical page definition to be ignored. The logical page may be larger than the physical page. The range of values is 1 to 65535.

Height Logical page height is defined in decipoints. A zero height causes the logical page definition to be ignored. The logical page may be larger than the physical page. The range of values is 1 to 65535.

Either 4 or 10 bytes of binary data defining values in the specified range must be downloaded with this command. If more than 10 bytes are received, the excess number is disregarded. If the number of bytes received is less than 10 and greater than 4, the left and top offsets are changed and the remaining bytes are ignored.

Upon receipt of a valid, 4-byte command, the current logical page definition is updated with the new left and top offsets. The margins, print direction, and current active position (CAP) are retained relative to the new position of the logical page. (The only change to the current logical page is that now it is offset relative to the physical page.)

Upon receipt of a valid command with 10 or more bytes of binary data, the current logical page definition is discarded and the new definition is installed. The following actions take place with a new definition:

- The macro overlay is disabled.
- Any current raster graphics are closed.
- The primary and secondary fonts are set for the selected orientation.
- Print direction is set to zero and the orientation is set appropriately.
- HMI, VMI, margins, and text length are set to their PCL defaults.
- CAP is moved to (0,0).
- CAP becomes floating.

The reference point used for tiling defaults to the upper-left corner of the current logical page. The tiles are printed based on the viewing orientation selected.

- The picture frame is defaulted to the logical page bounds and the anchor point is set to the upper left corner of the logical page.
- Any extra bytes specified with the command are disregarded.
- The positions stored in the CAP stack are not changed with an orientation change. Therefore, the positions are relative to the top left corner of the current orientation.

- The new logical page definition remains in effect until another logical page is defined, or the logical page is defaulted by receipt of a reset, an orientation change, a page length, or a paper size command. The current logical page definition (PCL default or user defined) is part of the user and overlay environments. A graphic mark will appear on the page if and only if it falls within the printable area and the logical page boundaries. For HP-GL/2 mode, graphics must also be within the defined picture frame and user defined window.

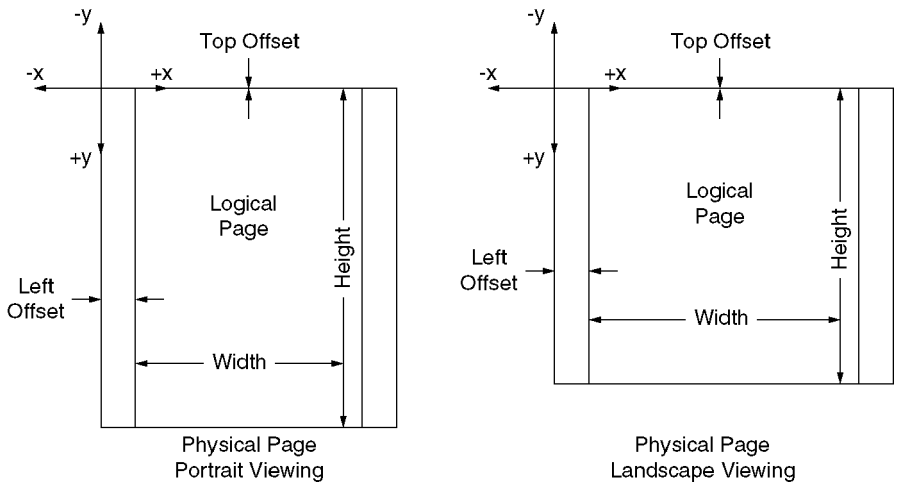

Figure 1 Physical Page Formats