

Offset, Margins and Borders in the IAPS

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1. Offset, Margin and Border

In IPDS a margin is called a border. A border is the extent of the unprintable area. An offset is a general displacement of the print image (the logic page) in relation to the paper (the physical page, also known as the media presentation space).

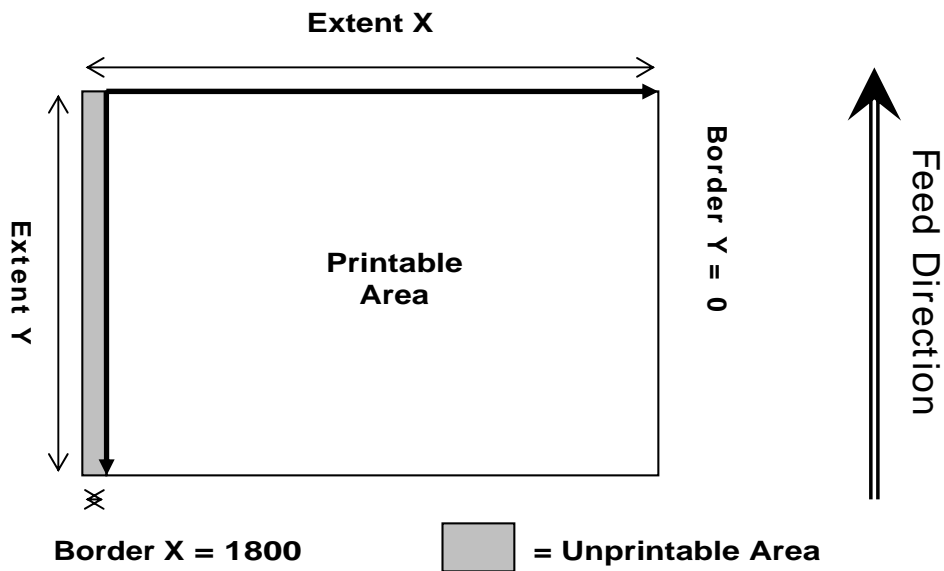
2. Border values in Driver Templates & Drivers

In the Postscript Backend the IBM standard border of 4 mm is used, which is equal to a Border X of 1135 ($\cong 1200$) 1/7200 inch.

For the PCL Backend the PCL 5e standard border of 6 mm is used, which is equal to a Border X of 1704 ($\cong 1800$) 1/7200 inch. The 6mm is a limitation defined by PCL.

If a printer can operate with a printable area larger than this, the Border X and Border Y values can be changed in the template or driver to fit the printout properly.

For printing with small or no borders (Edge to Edge) the PostScript backend should be used, due to limitations in the PCL language. The same applies for the scaling operation, referred to by IBM as the Fit operation.

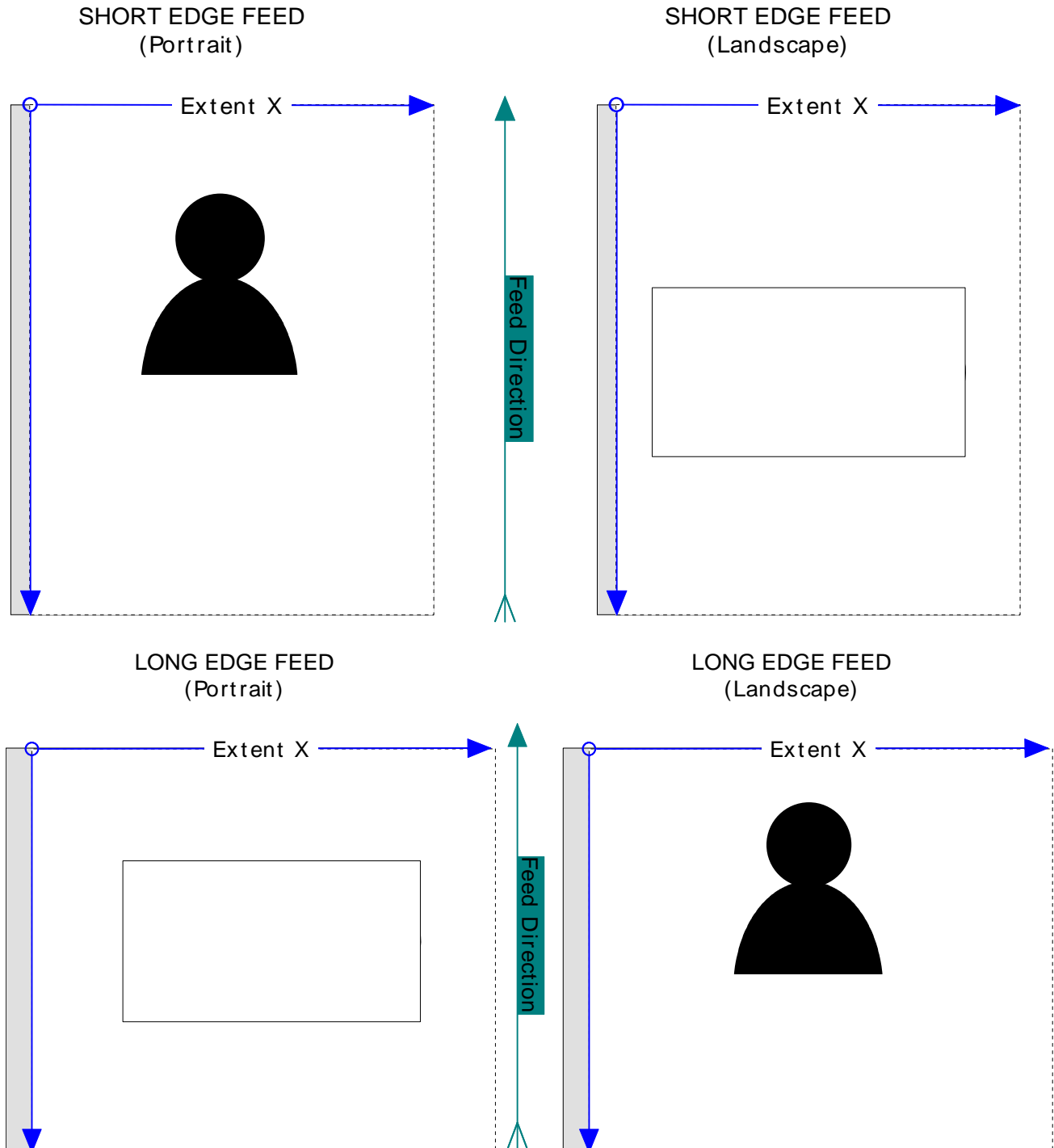


 +  = Physical Page (aka Media Presentation Space)

This figure shows the relation between the Printable Area and the options Extent & Border.

3. Short Edge- and Long Edge Feed

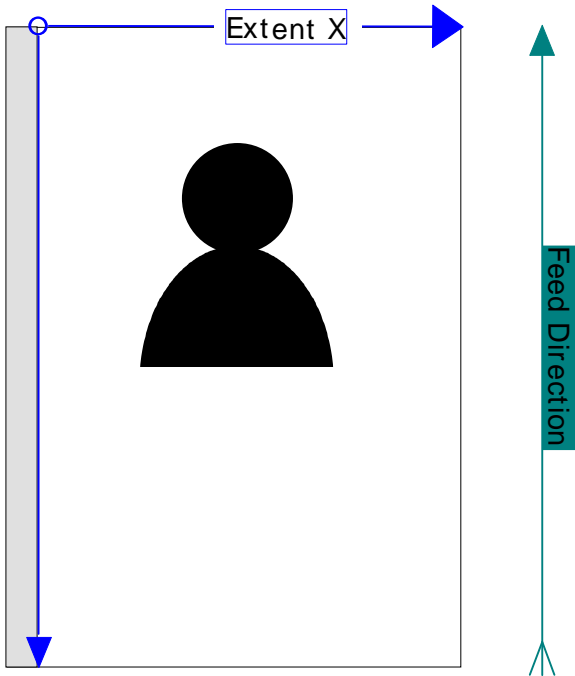
Below is shown the relations between Short- and Long Edge Feed and the more generic term: Portrait and Landscape. In IPDS, only Portrait is used, because the image relates only to the logic page. The logic page can then be rotated a given amount of degrees – e.g. 90°. The physical page – the paper – can then be fed short- or long edge. What we see is the intersection between the logic- and the physical page.



4. Border Values and Paper Rotation

The following description also applies with edge to edge printing – only set borders to 0.

SHORT EDGE FEED
(Image 0° rotated)

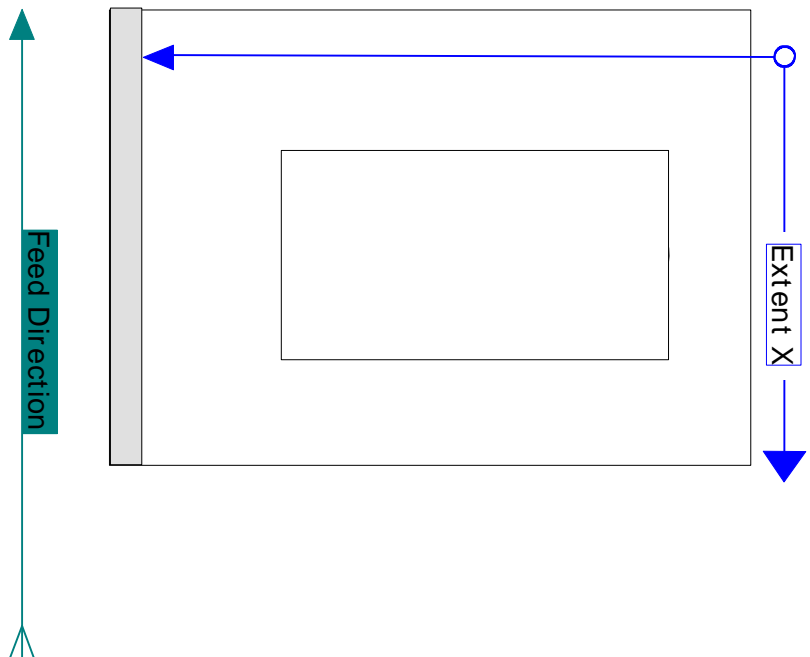


When feeding the paper with the short end first, the extent of paper area to the left of the feed direction, which the printer is unable to address, is indicated in the driver paper definition's border values in 1/7200 inch. E.g. Border x = 1800

LONG EDGE FEED
(Image 90° rotated)

When feeding the paper with the long end first and rotating the image 90° clockwise, things get quite messy. The printer is still unable to address the paper area to the left of the feed direction, but the border value(s) are rotated 90° clockwise – like the image. The result is that – when looking at the paper in portrait – the image is displaced upwards and – in this case, where the border x is 1800 – the image is also displaced 1800 1/7200 inch to the right.

To avoid this happening, you should create a new paper definition with the extents and borders reversed (X becomes Y). Then things are back to normal.



The paper definition should always reflect whether the paper is fed into the printer with short- or long edge!