

Chapter 5



Operation Know-how

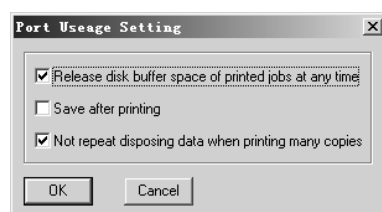
5.1 Increase Printing Speed

In order to reach the highest speed when prints file with large format printer, the following points should be noticed.

- ◇ Requirement of Computer Configuration: Pentium II ; Main Frequency: Higher than 266M; RAM: larger than 64M; Free Space of Hard Disk: Larger than 700M.
- ◇ Change the control mode of printing port into ECP mode through BIOS.
- ◇ If it is not necessary, do not turn the picture around in MainTop.

Hint *The method for turning the picture around is described in section 4.5.*

- ◇ When the selected port is the port driven by MainTop, its right side  button can be selected. Click  button, the following dialogue box will be displayed on screen.



Release disk buffer space of printed jobs at any time

If this command is selected it can not just increase the printing speed but also save a lot of spaces of hard disk. It means that large file can be printed with a rather small space of hard disk.

Hint *When this option is selected, all printing jobs that are passed through this port will be timely removed from the hard disk as soon as having been finished. If this option is not selected, the buffer function and buffer space size in hard disk for each printing job can be set up through MainTop Printing Manage System.*

Note *Save the finished Printing Job is prior to the Timely free the hard disk space used by the printing jobs that have been finished already.*

Not repeat disposing data when printing many copies

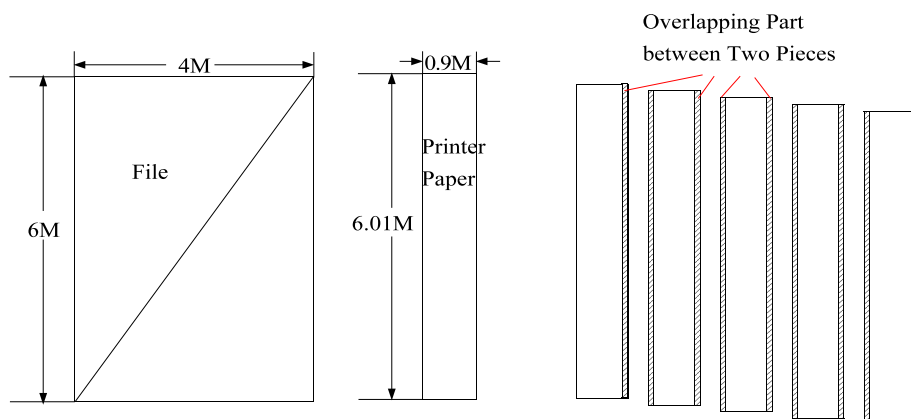
If this function is selected, when same file is to be printed for several times, the data procession will not be repeated. This not just save a lot of time but also lot of hard disk space.

Note *If **Printing Several Arranged Pieces** option is selected, it still needs to process the same data for several times.*

Hint *If you want to process the same data only one time when **Printing Several Arranged Pieces** is selected, you can print out the file into PRN format file, and then put the PRN file into **Add New Printing Job** list through MainTot Printing Management System for several times.*

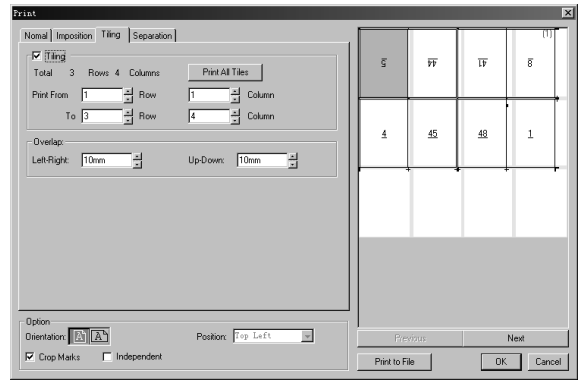
5.2 Dividing Large Picture into Small Pieces for Printing

If the page width of file is larger than the width of printer, the page dividing method should be used. The following example will explain how to use this method to print out a 4X6 square meters picture by an 0.91 meter width printer.



Hint *The Tiling function of MainTop divides the page of file into small pieces according to the size of paper currently used by printer automatically.*

1. Set up a new file of 4 to 6 M size, then input the picture into this file.
2. Select **File**, **Print**, then select **Printer Setup** from **Print** dialog box, the **Printer Setup** dialogue box will be displayed on screen.
3. Select **Custom** from **Page**, and then input 900mm into **Width** column and 6010mm into **Length** column.
4. Click **OK**, back to the **Printer Setup** dialogue box, select **OK**, back to **Print** dialog box..
5. Select **Tiling**, then click **Tiling** button, the following dialogue box will be displayed on screen.



Hint *It will be safer to print these divided pieces with block printing mode.*

Hint *Left-Right, Up-Down indicate the size of over lapping part of the divided pieces. If there is only one line, Up-Down can be set to 0, and Left-Right can be set freely. If the printing paper is used to make up a lantern, the overlapping part must be considered, other wise light beams inside the lantern will leak out. When photographic paper is used, overlapping part could not be remained, because photographic paper can be connected with each other smoothly.*

6. *Input 0 into Up-Down column, select **Print All Tiles**, click **OK** button, return to **Print** menu.*
7. *After all parameters been set up, click **OK** button, start printing operation.*

5.3 Imposition

The method of Imposition can be adopted when the following situations happen.

- ◇ Several small size figures are required to be printed on one big page.
- ◇ Several small figures of different sizes in one file with MainTop TPF format are required to be printed on one page.
- ◇ One small figure is required to be printed for several times. For example, several copies of a A3 size figure are required.

The following two methods of Imposition can be used.

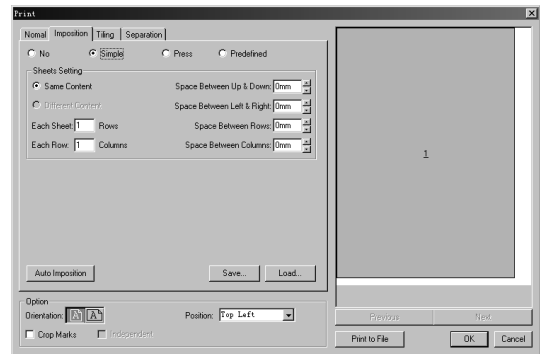
- ◇ Method 1

- 1.** *Create a file, and set page size in accordance with the paper size of printer.*
- 2.** *Fill all figures into the file sequentially, and adjust every figure's position.*
- 3.** *Click [File], [Print] button to start printing.*

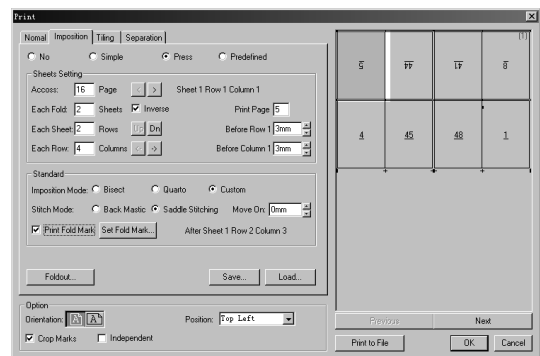
- ◇ Method 2: Carry out printing by using Imposition function in print menu.

A. Simple

- 1.** *Click **File**, **Print** button.*
- 2.** *Click **Printer Setting** button, modify paper size of printer in accordance with the size of imposition page.*
- 3.** *Return to **Print** dialogue, and select **Imposition** option (shown in figure below).*
- 4.** *Set parameters and click **OK** button.*



B. *Press* (This method is used to print file in reverse direction. For normal printing, select *Simple* method).

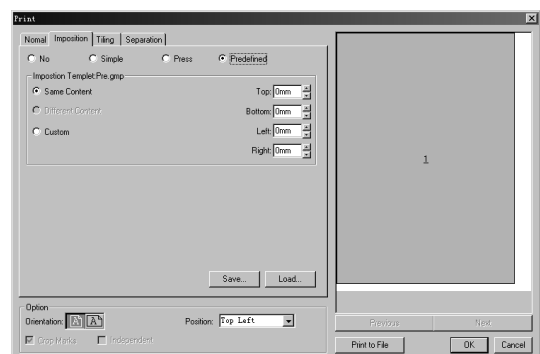


- ◇ For imposition printing, 2-fold, 4-fold and custom 3 methods are available. Select **Imposition** option from print dialogue box, then select **Press**. Select **Custom** from **Imposition Mode**, set Each Fold at 1 sheet, then enter page number being included, line number, row number, intervals between lines and rows and reverse or normal page printing direction manually.

Hint If the sizes of the pictures are different, the first method is suitable, but if the sizes of all pictures are the same, the second method is more appropriate.

C. *Predefined*

- ◇ This method is used for printing cards and certificates. Several predefined plates are stored inside system. Users can use them by directly loading from system. Select **Load** from **Predefined**. When one plate file(.gmp) is selected, the following dialogue box appears.



Hint *By Selecting **Custom** option, parameters such cross page number, sheet number per fold, reverse printing and fold mark etc can be set for standard imposition.*

5.4 Printing of Rotation Picture

In practice, the following situations would often happen.

- ◇ The size of the printing paper are width: 91.4cm, length: endless, but the size of the picture going to be printed are width: 60cm, length: 80cm. If normal printing method is used, 30cm width paper will be wasted. If rotate the picture for 90° to change the width with length, the paper can be saved when the picture is printed.
- ◇ When compose the text and picture together through MainTop, some times the picture is rotated for certain angles in order to obtain some appearance effects.

All these can be implemented through MainTop DTP RIP, but rotating picture will sharply reduce the printing speed because of the dividing calculation method which is adopted by MainTop RIP. So it is better to rotate the picture by PhotoShop before printing it out through MainTop.

Note *The printing speed will be influenced by rotating the picture except rotating for 180° or 360° through MainTop DRP RIP. The printing speed will not be influenced much by printing the rotated JPG file, but will be influenced apparently by printing the rotated files of other formats. PS RIP can not rotate the picture and print it out.*

The operation steps for printing the rotated picture are explained with an example below. If it is going to print a picture with size of 60cm x 80cm through MainTop RIP, the printing steps are as follows:

1. *Rotate the picture for 90° through Photoshop.*
2. *Select **File, New File** from DTP RIP window, set the size of the picture to 800mm&600mm.*
3. *Select **File, Import Picture**, load the rotated picture into the system.*
4. *Select **Print from File**, print the picture by using the method introduced above.*

5.5 Scan Picture

Use correct method to get perfect pictures of TIFF or JPG format by canning photograph, negative or the printed copy.

The scanning resolution should be selected according to the master copy, output size and the resolution of the printer. Generally, the size of the picture obtained by scanning should be as same as or little bigger than the size of the printing copy. This is because if the resolution is too low, the quality of the printed picture could not be guaranteed and if the resolution is too high, printer could not reach that level, so hard disk space will be wasted and the time for processing the picture will be increased.

Normally, it is most expected that the scanning resolution level is a quarter or a half of the resolution of the printer. At least it should not less than one sixth of the resolution of the used printer. If the picture is going to be expanded, the resolution should be increased in accordance with the expanding proportion. The resolution of the picture with

sharp outline also should be increased a little bit.

The following example is used to explain how to set up the scanning resolution for an 85mm X 126mm size picture.

The output resolution of printer is 600DPI, the scanning resolution is 150DPI, if the picture is to be expanded to the size of 850X1260mm, the scanning resolution for expanding the picture should be $150 \times 10 = 1500\text{DPI}$ (the scanning expanding coefficient is 1000%).

Hint

There are two kinds of scanning resolution, optical resolution and internal inserting resolution. Normally the optical resolution is used. If internal inserting resolution is used and the outline of the picture is not clear, it can be improved by PhotoShop. The mesh should be removed before scanning the master copy. The dim outline caused by removing the mesh can also be improved by PhotoShop.