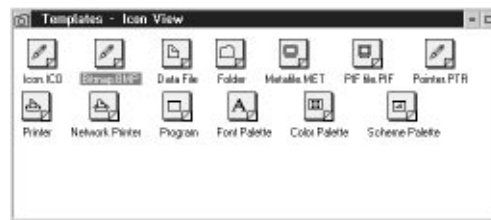


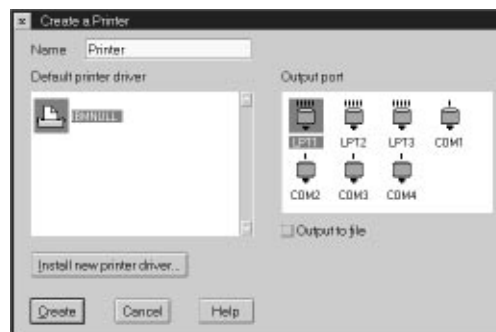
Printing and Print Management

Open the **TEMPLATES** object on the Desktop.



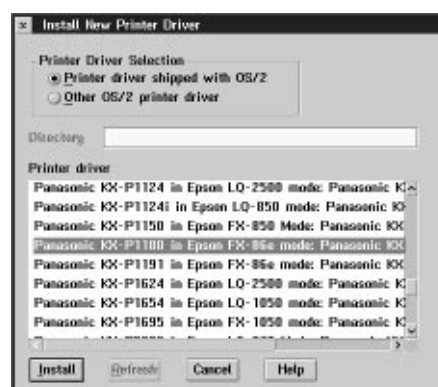
Find the **PRINTER** object. Press and hold the right mouse button on this object and drag it to the Desktop. Note that the object changes form from a sticky-note to a printer object. Drop it on the Desktop.

The **CREATE A PRINTER** window opens.



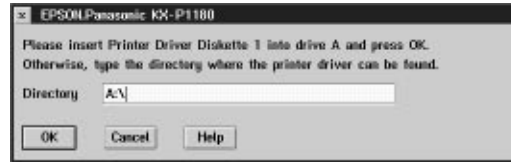
Note that there is only one printer driver available, the **IBMNULL** device that was loaded during install. You have a Panasonic printer, so you need to load a new driver.

Click on *Install new printer driver...*

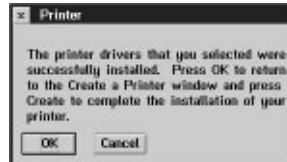


Scroll down the list of drivers until you find the *Panasonic KX-1180* driver. If you had a printer with no driver on the list, you would select the radio button *Other OS/2 printer driver* and you would be prompted to use a driver disk from the vendor. The driver must be an OS/2 driver. A DOS driver or a DOS emulator will not work.

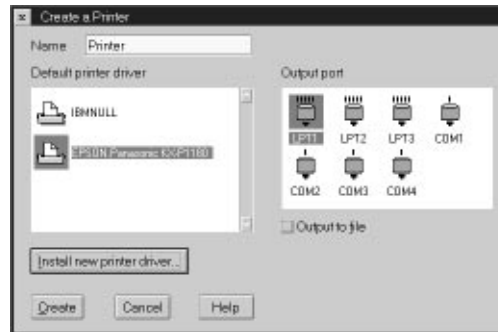
Click on *Install*. You'll be prompted to put the appropriate driver disk in Drive A.



Put in the disk and press *Enter*. The file will copy and be added to the list of drivers.



Click on OK. An object for the new driver appears in the *Default printer driver* field.



Now select which printer port to use. Note that OS/2 only installs three parallel ports by default. Nine ports are available. This becomes important in a network environment when logical drives are needed for redirections. For now, the default number are sufficient.

NOTE: OS/2 will handle the interrupts but the printer port **MUST** be bidirectional. OS/2 communicates to the printer and printing will not work if the port is unidirectional or if the printer cable is cheap or if the printer does not support bidirectional printing.

If you wanted to choose another port, you could double click on the appropriate **LPT** object. Try it and see. A **PARALLEL PORT SETTINGS** window appears.



The *Share access* option will permit more than one printer object access the same physical port. This is handy if you have a landscape and portrait setting or if one object has special settings that are unique to a particular application. Otherwise it is

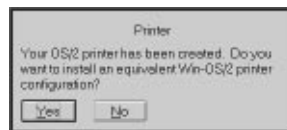
best to have only one printer object for each physical port.

The *Timeout* setting determines how long the computer will keep trying the printer port before signalling the user that the port does not respond. This is **not** the same as the LPT TIMEOUT feature in LANtastic. It is more closely related to the timeout setting in Windows.

Click on OK. Note that the **LPT2** object is now highlighted. Double-click on the **LPT1** object and repeat the process with the **PARALLEL PORT SETTINGS** window.

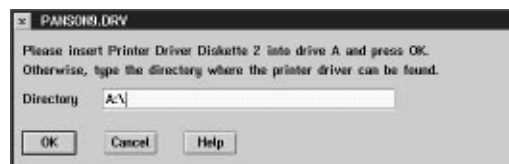
The default printer name in the *Name* field is *Printer*. A more descriptive name would be helpful. Change the entry to *Panasonic Printer*.

Click on *Create*. You'll be prompted to install an equivalent driver for WIN-OS/2.



OS/2 handles all printing, even print jobs originating in Windows. But print jobs coming from Windows must be formatted by the Windows printer driver, since that is what the applications are expecting. If you are using Windows, it's important to keep the drivers synchronized.

Click on Yes. Because you are using WIN-OS/2, you are prompted to insert an OS/2 printer driver disk.



If you were using OS/2 for Windows, which uses a copy of Windows that is already on the machine, then at this point, OS/2 would prompt you for a Windows disk.

Insert the requested disk and complete the installation. When you're done you will have a printer object on the Desktop.



Double-click on this object.



This window will give you the status of jobs sent to this printer. First, look at the options available. Click the right mouse button in the white background.



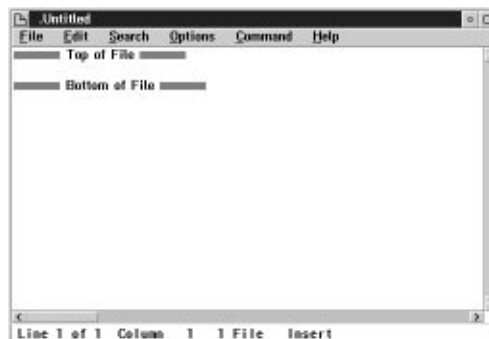
The popup offers the usual suspects, but there are two near the bottom that can be useful. Click on the *Set default* arrow. Note that *Panasonic Printer* is the only option available. If you had another printer object defined, then it would also be on this list. By choosing one object as a default, that becomes the printer object that will be used by OS/2 when the system or an application doesn't specify a printer object.

Click on the *Change Status* arrow then choose *Hold* from the flyout menu. Note that the *Status* line changes to *processing held*. Leave it in this condition for a moment.

Mimize the window. Note that the **PANASONIC PRINTER** object has hash marks. This indicates that the print control window is open in the background.

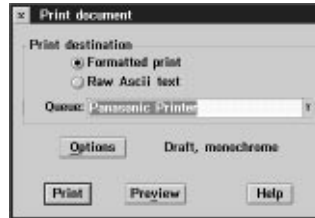
Open the **OS/2 SYSTEM** object then the **PRODUCTIVITY** object. Find the **ENHANCED EDITOR** object. Drag a shadow of this object to the Desktop. Close all open windows.

Double-click on the **ENHANCED EDITOR** object to launch the editor.



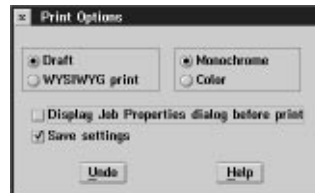
Type some grackle in the editor. Mouse around the various options for a while. This is a relatively full-featured editor. It supports graphics and has options for line and stream editing and will print. Printing is what we're interested in.

Select *File* then *Print File*. The **PRINT DOCUMENT** window appears.



You have the option to use *Formatted print*, which will massage the print job based on the print driver you select. We'll see in a minute how important that decision can be. *Raw ASCII text* will send the print job purely as a stream of characters. Click on this option. Note that the output changes to the physical port. If you had more than one printer queue associated with the port (remember the *Shared access* option?) then the queue with the *Default* option set would get the job.

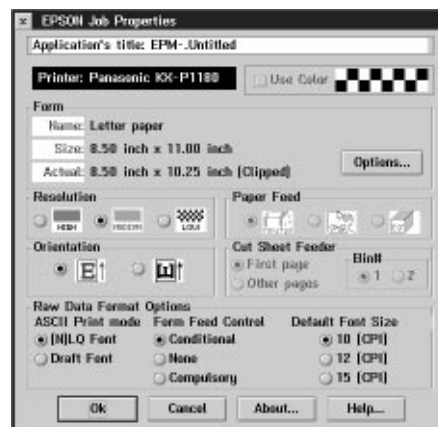
For now, leave the *Formatted print* radio button clicked. Click on *Options*. The **PRINT OPTIONS** window appears.



You can choose to print the job as full graphics and fancy fonts (WYSIWYG) or as draft. The *Color* option is used for color printers such as a HP Deskjet 500C. Click on *Display Job Properties dialog before print*. This will give us some indication of what is going to the print queue.

Close the window by double-clicking in the upper left corner.

Click the *Preview* button. The **JOB PROPERTIES** screen appears, right on schedule.



You have the option to change the printer options available for this print object.

Click the *Options...* button. The **PM ENHANCED PRINTER DRIVER** window appears.



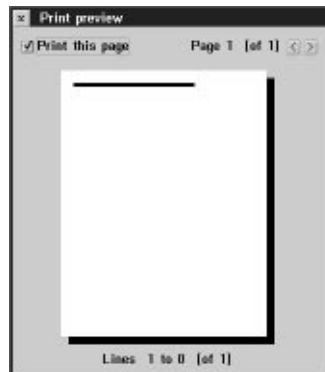
This is where you can change the paper size loaded in the printer. In the case of the tractor-feed printer type like the Panasonic, only the last two make any sense.

Click the *Cancel* button then the *About...* button. The driver's brag screen appears.



This can be a very important screen. It quickly tells you what driver is being used by the printer object along with the version number and the actual writer of the driver.

Click the *OK* button for this window then the *OK* button to begin formatting the preview. When it is finished, the **PRINT PREVIEW** window appears.



Because the print is too small, it is *greeked* on the screen.

The *Print this page* option doesn't have much to do because there is not a corresponding *OK* button. I've never quite figured out the reason for this option.

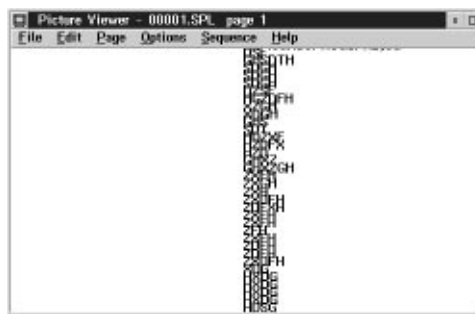
Close the window then click the *Print* button. You'll get a status dialog then you are returned to the editor.

Print the job again. This time select the *Raw ASCII text* option.

Minimize the editor. Double-click on the **PRINTER** object.



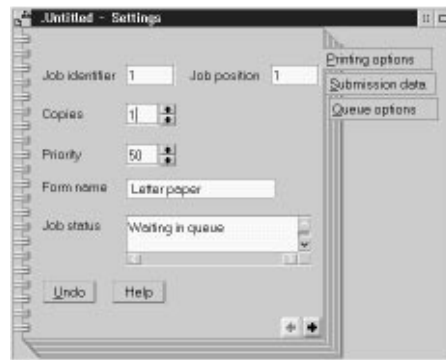
Note that you have two print jobs waiting. Click the right mouse button on the first one and select the *Open* arrow then *Job content*. The OS/2 **PICTURE VIEWER** appears with the print job displayed as well as the video driver can handle it.



Close this window and open the same window for the second print job. Note that, instead of a Picture Viewer, the system simply uses the Sytem Editor to present the contents of the spooled file. You could change the contents if you wished.

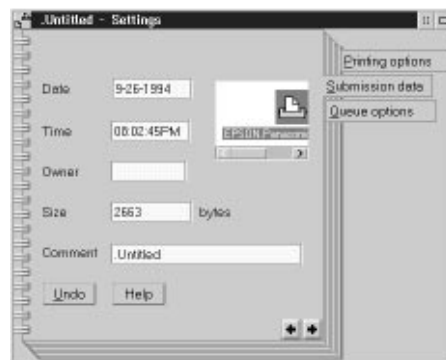


Close this window. Click the right mouse button on the first print job and open the *Settings* notebook.



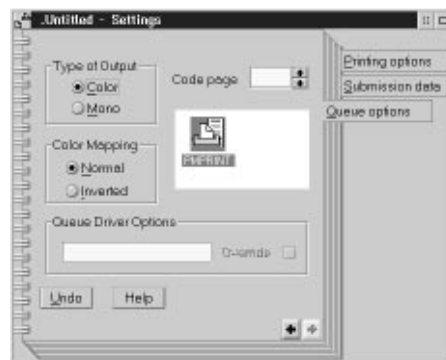
The *Printing options* tab gives you valuable information about the status of the job. The *Priority* option determines how much of the CPU's time will be given to this job. It is analogous to the *CPS* setting for LANtastic servers. Setting the priority higher can speed up printing, but slow down foreground apps. The highest setting is 99.

Click on the *Submission Data* tab.



This tells you where the job came from if the application branded it for you and other information about it.

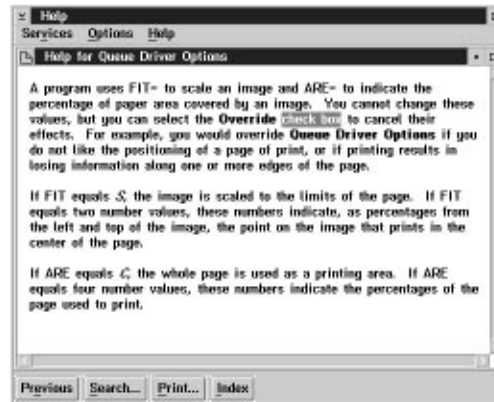
Click the *Queue options* tab.



This page lets you screw up a print job beyond repair with very little effort. *Code Page* is the series of characters that OS/2 will use for mapping. This should be defaulted

from the COUNTRY statement in CONFIG.SYS. You can change the background to waste toner/ribbon.

The *Queue Driver Options*, if enabled, can be especially difficult to understand. Here is how OS/2 explains it:



Close the Settings notebook. Open the Settings Notebook for the second job. Note that there is no *Queue Options* tab. Recall that this job printed directly to the port. Close the Settings Notebook.

Click the right mouse button on the second print job and select the *Change status* arrow then the *Hold* option from the flyout menu. Note that the job now has a big slash through it to indicate that it is held.



Make sure the printer is connected to the LPT1 port and is turned on and on-line and has paper. Release the print queue and, when the first job prints, release the hold on the second job. Note that the *Raw ASCII* job has no form feed.

When the jobs have cleared the queue, place the queue back on hold and close the printer window.

Open the **DRIVE C** object and drag a shadow of the **AUTOEXEC.BAT** object to the desktop. Close the window.

Drag the **AUTOEXEC.BAT** object to the **PANASONIC PRINTER** object and drop it. You are prompted to choose how to format the job.



If you click the *Plain text* button, you will send the job as ASCII text. If you click on the *Printer-specific* button, the job will be formatted based on the printer driver associated with the print object. It is generally preferred to pick the *Printer-specific* option. Otherwise the job may no format correctly, or may not even print.

Click on *Printer-specific*. When the job has finished spooling, open the **PANASONIC**

PRINTER window and view the job (right mouse button, *Open, Job Content*). You will get the following error:



You got this because the print queue didn't get a chance to decide how the job was to be formatted, so it tried to open the System Editor. Click the *Continue loading file* button.



The escape sequences sent to the printer are what caused the error. Close the window.

Let the job print. You will get a form feed and the job may print in letter quality mode.

Experiment with making new printer objects with different drivers. Point them at the same hardware port. See the difference in the printed results.

This is the end of this exercise.