

PalmPrint / SCS Print Server



Printing Software for the Palm Computing Platform from Stevens Creek Software Users Guide

Version 4.4
October 2004

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NOTE: This manual supports three different products. **PalmPrint** is our general purpose printing software, which prints a wide variety of information itself, and also provides printing services to other applications. **SCS Print Server** is a stripped down version of the software which only provides printing services to all other applications which choose to support it, and does not itself do any printing. And finally, there are special versions of **SCS Print Server** which support printing only to a single application. Most of the material in this manual applies to all three versions, with a few exceptions. The name of the application file, which you need to know when you install the software, is `PPrint.prc` if you have the full version of **PalmPrint**, and `SCSPrint.prc` if you have the server version. And when you go to the application window on your Palm to start the application, the **PalmPrint** icon is labelled "PalmPrint", while the **SCS Print Server** icon is labelled "SCS Print".

Chapter 1: Installing the Software

Installing PalmPrint in Your Palm

Whether you downloaded the software from our Web site or received it in the mail, you should have a file called `PPrint.prc` (or `SCSPrint.prc`, as appropriate) on your computer or floppy disk or CD, along with a series of companion programs - `PalmPrint_Address.prc`, `PalmPrint_Datebook.prc`, `PalmPrint_Mail.prc`, `PalmPrint_Expense.prc`, `PalmPrint_Doc.prc`, `PalmPrint_Eudora.prc`, and `PalmPrint_iMessenger.prc`. Please note that some or all of these programs may be optional, depending on how you licensed your software, that is, you may need to purchase a separate license to use one or more of these companion programs. **If you do not have the file `PPrint.prc`, you cannot proceed.** If you do, here's how to install it on your Palm handheld device:

From a Macintosh:

Select the **HotSync** menu from the "Instant Palm" menu on the upper right of your menu bar; in the sub-menu, select **Install Handheld Files**. Click on the **Add To List** button. Locate and select the file `PPrint.prc`, and click **Add File**. Click on **Add To List** again and select `PalmPrint_Address.prc`, and a third time and select `PalmPrint_Datebook.prc`. If you want to print mail from the Palm Mail application, you should also install `PalmPrint_Mail.prc`. If you want to print mail from the Palm VII iMessenger application, you should also install `PalmPrint_iMessenger.prc`. If you want to print mail from the Eudora application, you should also install `PalmPrint_Eudora.prc`. If you want to print expense reports from the Palm Expense application, you should also install `PalmPrint_Expense.prc`. If you want to view and print "Doc" files from your Palm, you should also install `PalmPrint_Doc.prc`. The next time you HotSync your Palm, the programs will be downloaded.

From Windows:

Using the Install software that came with PalmPrint: As part of the download or on this diskette or CD you should see a program named `Install` (`Install.exe`) in the same folder as the **PalmPrint** software (`PPrint`). Double-click on `Install`, and it will copy all of the files to a new `PalmPrint` folder in your `Palm` folder on your computer, and at the same time will perform all the steps to install the software in your Palm, except for the final step of performing an actual HotSync. When you do your next HotSync, the software will be installed in your Palm.

If the procedure above does not work for some reason, or if your desktop computer is supporting multiple Palms, try the "manual" procedures described in the next few paragraphs; if those don't seem to apply to your setup, please consult the manual that came with your handheld device (Palm, Handspring Visor, Symbol SPT1500, etc.), which contains instructions on installing applications into the handheld

Using current Palm desktop software: Try this first: Double-click on the file `PPrint.prc`. If your system is correctly configured with the latest Palm software, a window labelled "Palm Install Tool 3.0" (or perhaps higher) will appear. Check that the user name displayed is the name of the unit on which you are installing the software, change it if it isn't, and click on **OK**. A new window labelled "Palm Install Tool" will appear with a list of software to be installed in your Palm, which should include `PPrint.prc`. Click on **Add**, select `PalmPrint_Address.prc`, and then again to select `PalmPrint_Datebook.prc`, and, if you want to print emails from the Palm Mail application, `PalmPrint_Mail.prc` as well. If you want to print mail from the Palm VII iMessenger application, you should also install `PalmPrint_iMessenger.prc`. If you want to print mail from the Eudora application, you should also install `PalmPrint_Eudora.prc`. If you want to print expense reports

from the Palm Expense application, you should also install `PalmPrint_Expense.prc`. If you want to view and print "Doc" files from your Palm, you should also install `PalmPrint_Doc.prc`. Click on **Done** to show you are done, then on **OK** to confirm. The next time you HotSync your Palm, the programs will be downloaded.

If the method in the previous paragraph didn't work, try this: Start your Palm desktop software. Click on the **Install** button. Check to make sure the User name displayed at the top of the Palm Install Tool window which appears is the user name of the Palm handheld device on which you want to install the software; if not, select the correct user name. Now click on **Add**. Using the file browser which appears, locate and select the `PPrint.prc` file, and click **Open**. Click on **Add**, select `PalmPrint_Address.prc`, and then again to select `PalmPrint_Datebook.prc`. Now click on the **Done** button, and then on **OK**. The next time you HotSync your Palm, the program will be downloaded.

Installing Fonts

On most printers, **PalmPrint** uses the "built-in" fonts of the printer, so you should NOT install any fonts in your Palm. If you do, they will simply take up memory and not be used. If you will be using a Pentax PocketJet 200 or SiPix Pocket Printer A6, however, the printer does not have built-in fonts. Also, if you will be using an HP-compatible printer but require accented characters (e.g., European language characters or currency symbols), you may want to install fonts (see the discussion below under selecting [Printer Type](#) for more information about this). In this case you have two options. If you don't install any fonts, PalmPrint will use the Palm "screen fonts" for printing. All the fonts (Courier, Times, and Helvetica) will look the same in this case (although Courier will still be monospaced and the other two will be proportionally spaced), and their appearance will be less than optimal. Alternatively, you can select fonts to be installed. There are four sets of fonts, which vary in the amount of memory they require on your Palm, and in quality. "Lo Res Plain" fonts take up 36K (approximately), and provide low-resolution fonts in plain only. Bold IS supported; the bold quality is created "on the fly" using the plain font. "Lo Res" fonts take up 70K and add a "real" bold font and thus provide higher quality bold. "High Res Plain" fonts take up 101K and provide higher resolution output; "High Res" fonts take up 205K and add high quality bold as well. In general, we think that the "High Res Plain" fonts will be satisfactory for most people unless you are using a lot of bold in your output, but if space is a constraint on your Palm, the "Lo Res" or "Lo Res Plain" fonts should be just fine.

If you are using Windows and run our `Install` program, you will be given a choice of fonts, and you simply need to select the right option to have the fonts automatically installed. With Macintosh, we don't provide an installer, but you can simply use the standard **Install Handheld Files** menu to select the fonts you wish to install. The fonts, which are "PDB" files (Palm DataBases), are found inside the Fonts folder, in sub-folders by names which describe their function. It isn't required to install all three fonts (Courier, Times, and Helvetica) if you don't wish to, but if you don't, and then select a font which isn't installed, the results will be as if no fonts are installed (that is, Palm screen fonts will be used).

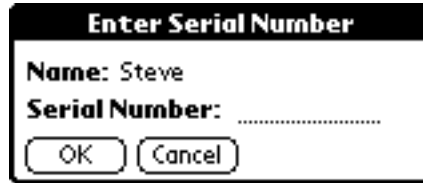
Starting the Application

From the **Applications** window on your **Palm**, look for the icon labelled **PalmPrint** (or **SCS Print**) which looks like this:



Entering Your Serial Number

If you have registered the software, and have obtained a serial number from **Stevens Creek Software**, you enter the serial number by tapping on the word ***Unlicensed*** in the upper right of the main screen. When you do, you'll see this screen appear:

A screenshot of a software dialog box titled "Enter Serial Number". The dialog box has a black title bar with white text. Below the title bar, the text "Name: Steve" is displayed. Below that, the text "Serial Number: " is followed by a dotted line indicating an input field. At the bottom of the dialog box, there are two buttons: "OK" and "Cancel".

Enter Serial Number

Name: Steve

Serial Number:

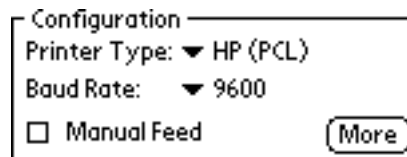
OK Cancel

Use Graffiti (or the on-screen keyboard) to enter your serial number (supplied to you by Stevens Creek Software); when you're done, tap on the **OK** button. If you enter an incorrect number, the software will let you know. If necessary, tap on the **Cancel** button to dismiss the Enter Serial Number screen. When you have entered the Serial Number correctly, you'll see the word ***Unlicensed*** disappear from the main screen.

If you run into a problem, this probably means that when you provided your Palm user name to Stevens Creek Software, you did so incorrectly. Check the name in the Enter Serial Number screen shown above, and write it down exactly (including case, i.e., whether the letters are upper-case letters like THIS or lower-case letters like this) and [email it to Stevens Creek Software technical support](#) and wait for a new serial number to be provided to you.

Chapter 2: Configuring the Software

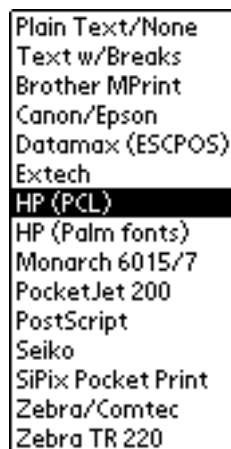
On the top of the main screen when you open **PalmPrint**, you will see this display:



Setting the Printer Type and Baud Rate is the most important part of configuring **PalmPrint**. We choose to put it in the main screen for two reasons - first, to remind you of how you have the software configured, and second, to allow you to quickly change configurations if you use **PalmPrint** with more than one printer.

Printer Type

The **Printer Type** pop-up menu offers you these choices:



The first choice, **Plain Text/None**, is provided for the case when you want to use **PalmPrint** to send data to another computer, although you also may find this mode suitable for a number of small receipt printers which don't accept standard printer languages. In this mode **PalmPrint** sends out only the text it is asked to send, exactly as it exists. Automatic word-wrapping and page breaks are disabled, and no additional control characters are sent. The next choice, **Text w/Breaks**, is similar, but in this mode **PalmPrint** will add margins and line breaks after the number of specified characters (as discussed below). If you are not able to directly connect your Palm to a printer, either via cable or Infrared, you can use the Text w/Breaks setting to print via your desktop computer (with the Palm in its cradle); this is described in the [Using PalmPrint to Transmit Data to A Computer](#) section of this manual.

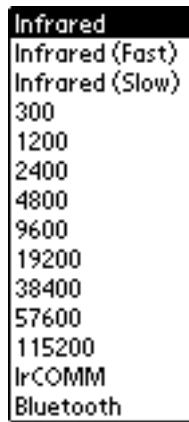
The remaining choices describe various types of printers and printer languages that are in common use. If you are unsure of what language your printer uses, you should consult the manual that came with your printer. Note that there is not a direct correlation between manufacturer and printer type. For example, many printers (such as many Apple LaserWriters) support PCL. Printers from many manufacturers support PostScript, but often PostScript is an optional capability on the printer so you'll need to be sure that it's installed on your particular printer. If you're completely unsure, you can try all the possibilities, but try Epson first, since Epson compatibility is probably the most

common configuration for different printers.

The most confusing choice is probably **HP (PCL)** vs. **HP (Palm fonts)**. The first of these is the "standard" setting that should be used by most users of HP or HP-compatible printers, and relies on built-in fonts within the printer. The second choice requires that you install fonts in the Palm (see above), and uses those fonts instead of the built-in fonts of the printer. This method requires more memory on the Palm (for the printer fonts), produces slower printing (because more data has to be sent to the printer), and also produces lower resolution printing, so in general it is not the method of choice. The only reason to do this is if you want to print certain accented characters or other "special" characters (including various currency symbols like the pound sign, the euro symbol, etc.), which are not supported in the basic mode. This method also produces more accurate word-wrapping for Times and Helvetica fonts (see below), but this is unlikely to be an important enough consideration to warrant the disadvantages. You are able to use either setting, so you may wish to use the faster **HP (PCL)** setting for some print tasks and the slower **HP (Palm fonts)** setting for others (assuming you have installed fonts in the Palm).

Baud Rate

The **Baud Rate** pop-up menu offers you these choices:



In some cases, you will be able to choose a variety of baud rates; in other cases the baud rate is fixed by your printer. You will need to determine the appropriate baud rate. The last section of this manual contains settings for some printers of interest, although you may also need to consult your printer manual for this information. If you connect your Palm to another computer (instead of a printer) and use the "Plain Text" mode of **PalmPrint** to transmit information to a terminal emulation program (see next chapter), you'll probably be able to vary the baud rate within the terminal emulation program (and within **PalmPrint**).

You'll also see three "Infrared" choices on the pop-up menu. Select one of these to use the infrared (IrDA) port for printing to IrDA-capable printers. **For most IrDA printers, you should select "Infrared," the first choice on the list.** If you encounter difficulties communicating with the printer, then you can try the other two choices, "Infrared (Fast)" and "Infrared (Slow)" to see if you can reliably establish communication with either of those settings (the **Seiko DPU-3445** requires a setting of "Infrared (Fast)", as does the **Pentax PocketJet 200**). If your handheld computer does not support IrDA (for example, it's an older, non-upgraded Pilot or PalmPilot), then the software won't let you select Infrared.

If you are using a serial-to-parallel converter cable, data arrive at your printer in a "parallel" mode, but they are sent out of the Palm as a serial transmission, and the baud rate must be set above to match the baud rate required by the serial-to-parallel converter. Stevens Creek Software sells two different cables for this task. The GA945CE9M has a 9-pin connector on one end which mates with

either a "HotSync cable" (sold by Palm) or the cable coming from the HotSync cradle. If you are using this cable, set the baud rate to 9600. The GA945PP has a "Palm serial" connector on one end which mates directly with all Palm handheld units except the Palm V. If you are using this cable, set the baud rate to 57600.

If you are "printing" to terminal emulation software on your host computer (see Chapter 4), set the baud rate to match the baud rate in your terminal emulation software. If you are printing via cable to the serial port of a printer, the baud rate set in **PalmPrint** should match that of your printer. Some printers are fixed (typically at 9600 or 19200 baud - the **Monarch 6015** requires 19200 baud, for example), while others have baud rates which can be selected. Consult your printer documentation for information on what the fixed baud rate of your printer is, or how to change it if it is adjustable. If you set the baud rate incorrectly, you will often see output on your printer, but it will consist of nonsense characters. If you see output like that, the likely solution is to change the baud rate. However some printers will not print anything until they receive the final "page eject" command, and if that is garbled like the rest of the page, you will see no output whatsoever. In other words, an incorrect baud rate is not a guarantee that you will see garbled output; you may see no output at all.

IrCOMM is a setting which is used for a special type of IR communications. A few infrared printers, including the Brother MPrint MW-100, support this mode (check your printer documentation), although most will use the standard **Infrared** option discussed above. IrCOMM can also be used to transmit data to personal computers which have an infrared port and which are equipped with some kind of terminal emulation software which can be configured to read data from the IR port. If you don't understand this, then most likely this mode of operation isn't for you.

Bluetooth printing requires that you have a Palm device with either built-in Bluetooth support (the Tungsten/T model from Palm is the only such model available as of this writing) or with a Bluetooth card (such as the Bluetooth SDIO card sold by Palm) or "sled". If Bluetooth support is not built-in to your handheld model, then most likely there will be some additional Bluetooth support software provided with your add-on hardware that also needs to be installed. Consult the documentation that came with that hardware for more details. With the Tungsten/T, no additional software will need to be installed.

For Bluetooth printing you will also need either a printer with Bluetooth support, including the Hewlett-Packard DeskJet 995c, or one of several Bluetooth-to-Parallel adapters that are available (see the chapter in the manual on Connectivity issues for more on that subject).

Both infrared (IR) and Bluetooth printing also require some setup, which will be described shortly.

Manual Feed

If you check the Manual Feed box **PalmPrint** will select the manual feed tray for paper input. In all other cases the built-in paper tray will be used. This setting is only applicable to certain printers; on other printers it is ignored. On some printers with manual paper insertion, such as the Pentax PocketJet 200, checking this box displays a box reading "Insert paper, then tap OK" to allow time to insert pages.

More Configuration Settings

Clicking the **More** button will display this screen, which allows you to choose additional settings:



Char(acter)s per line and **Lines per page** set the maximum values for those parameters, which are used by the software when it does automatic word-wrapping and page breaks. The values are set by default to numbers appropriate for 8 1/2 x 11" paper; change them if you wish. Set lines/page to 0 if you are printing on continuous roll-feed paper and don't want page breaks. Characters per line has a maximum of 255; lines per page has a maximum of 99. However most likely neither of these values is correct for your printer; you are responsible for setting these numbers to values which are meaningful for the printer you are using.

On two printers, the chars/line is used to set the font size. On the **Seiko DPU-3445**, if you set the Chars/line to 52 (or fewer), printing will be in the standard size font for that printer; if you set the Chars/line to 69 (or anything larger than 52), printing will be in a small size font. On the **Monarch 6015**, you can set Chars/line to 48, 42, 38, 32, or 24 (42 is "normal") to get progressively larger characters.

Note that characters per line will vary with the font size chosen (see below); if you print in smaller fonts, more characters will fit on a line. If you set the characters per line too low, and you print a memo which contains paragraphs longer than one line, the printing will not fill the page, like this:

```
This is an example of setting the
characters per line too small for the
page so that the full page is not
filled up as it should be.
```

If your printed page looks like this, you can safely increase the number of characters per line. On the other hand, if you enter a number of characters per line which is greater than the number which really fit on one line, then the lines will wrap around, like this:

```
This is an example of setting the characters per line
too large for the
page so that each line wraps around because the
software thinks
the paper is wider than it really is.
```

If your printed page looks like this, decrease the number of characters per line.

Left margin and **Top margin** should be self-explanatory; note that the former is measured in

characters and the latter in lines. Note that on printers with continuous roll-feed paper, the top margin setting is also used at the end of the printing as a bottom margin to ensure that the paper moves past the cutting mechanism.

Font can be set to Courier, Times, or Helvetica. Automatic word-wrapping is only accurate if you select Courier font. The software counts characters only, not actual character widths, and thus the word-wrapping for proportional fonts (Times and Helvetica) will be approximate only. If you are printing material which has columns which are supposed to line up (such as a table), you must select the monospaced font Courier in order to get proper output. **Font size** can be set to 12 pt, 10 pt, and 9 pt. **Bold** sets the default print to be bold rather than plain.

Orientation can be set to P (Portrait - long axis of the page vertical) or L (Landscape - long axis of the page horizontal). When you change orientation, the Characters per line and Lines per page will change, because there are actually two sets of those numbers, one for each orientation. Changes you make to the Characters per line or Lines per page always apply to the currently selected orientation. **Orientation is applicable only to PCL and PostScript printers** and is ignored on other printers.

Line termination can be CR (Carriage Return), LF (Line Feed), or CRLF (Carriage Return-Line Feed). This comes into play mostly when you are using **PalmPrint** to transfer information to another computer, in which case the end of line character(s) may affect how the data appears on the receiving computer or software. **Leave this setting at CRLF if you aren't sure**, or experiment and see what happens. When you are printing, most printers have some kind of setting (often set by DIP switches) which set the end of line character. Again, if you aren't sure, leave the setting at CRLF, but consult your printer manual for more guidance on the appropriate setting.

Auto-detect IR Printers is used to take advantage of a feature of IrDA communication, in which IrDA devices identify themselves by name such as "BJC-80" or "DeskJet 340". If you regularly print to more than one type of IrDA device, you probably want to leave this box checked. In that case, if you try to print to a printer which does not match the currently selected printer type (set on the main page), the software will automatically switch the printer type for you. This identification process does take a fraction of a second, though, and if you only print to one type of printer, you're probably better off just setting the printer type on the main screen and leaving this box unchecked. Note that if you have an HP printer, checking this box will result in setting the printer type to "HP (PCL)", so if you intended the printer type to be "HP (Palm fonts)", you should leave this box unchecked.

Use CTS Transmit Flow Control should be checked when you are sending data via serial transmission to printers which may not have a sufficient internal buffer to accept everything being sent; this is particularly true with small receipt printers. This mode may also be useful when you are using **PalmPrint** to send data to another computer and want to ensure the most reliable data transmission. If you are sending data via cable and some characters are being lost, it is almost certain that use of this mode will solve the problem. However **you should NOT check this setting unless you need to**, because if you do so and try to print via the serial port without being properly connected, the software may hang (tap **Cancel** if it does).

Infrared Setup and Testing

If you will be printing via infrared, you'll first want to test the IR "connection" to make sure that your Palmcan "talk" to your printer. After setting the **Baud Rate** to **Infrared** (see above), point the top of your Palm III (you can hold it level, you need not turn it so the IR port which is on the back side is visible) at the IR port of your printer (check your printer manual if you aren't sure where the IR port is). **The distance is critical.** You cannot be too far (our experience shows a maximum distance of 20 inches (50 cm), but this will vary with your handheld unit as well as your printer. If your batteries are weak, longer distances will be less likely to work. **You also must not be too close.** Again, distances vary, but it seems that as you get closer than 4 inches (10 cm), transmission

can become unreliable with some printers. Now, once you have the units aligned, tap on the Menu icon and select **Test IR Communications** from the menu:



A window labelled PalmPrint Status Window will appear on your screen, and show you a message "Looking for IR printer..." After a few seconds, it should identify the printer, and you'll see (for five seconds, before it erases itself) a message like this: "Printer ID: BJC-80". If instead you get a message "No IR devices found within range!", you'll know that something is wrong. Check the obvious (did you remember to turn the printer on?) and then experiment with distance and angle. If you have access to another Palm with IR, you can try pointing your Palm at the other one (make sure the other one is on at the time). In this case you should see a message that says "The IR device found is not a printer!", which will at least let you know that your IR port is functional.

Aside from distance, the only "trick" with IR is timeout issues. If you have a failed communication, you may still have partially engaged the IR software in the printer. If this happens, further attempts to communicate will fail, because the printer acts as if it's not there. You either need to turn the printer off and on again, or, usually, just wait for a timeout period (15-30 seconds) for the printer IR software to "reset" itself. In other words, don't just keep tapping on **Test IR Communications** repeatedly, but "give it a rest" for a short time if the effort doesn't succeed.

Batteries may also be an issue. At a battery level significantly above that at which you receive a "low battery" warning from the Palm operating system, IR printing may fail, so for your first attempt at IR printing, make sure you have fresh batteries.

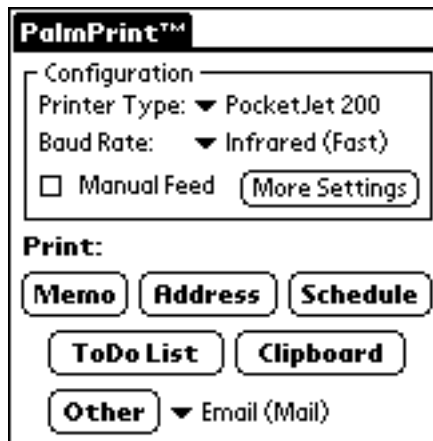
Once you understand the distance constraints and are successful in establishing reliable communications, you'll find that you can successfully communicate with the printer every time, so don't be discouraged by any initial failures.

Bluetooth Setup and Testing

If you will be printing via Bluetooth, you'll first want to use Bluetooth to select the appropriate Bluetooth device (even if there is only one other one within range of your Palm) and to make sure that your Palm can "talk" to your printer. After setting the **Baud Rate** to **Bluetooth** (see above), tap on the Menu icon and select **Select Bluetooth Printer** from the menu. The Palm will search for available Bluetooth devices and display that list on screen. Select the one which corresponds to your printer and tap **OK**. You do NOT need to do this everytime you print. Once you have "discovered" a printer in this way, **PalmPrint** will remember it and as long as you continue to print to the same printer your choice will remain in effect. Only when and if you want to print to a different printer will you need to use the **Select Bluetooth Printer** option again.

Chapter 3: Printing

After configuring **PalmPrint** appropriately, you can turn your attention to the bottom of the screen, where you will see a series of buttons to allow you different printing choices:



If you are using **SCS Print Server** instead of **PalmPrint**, the buttons shown above (and described below) will be replaced by two buttons: **Test IR** and **Test Print**. Tap on **Test IR** to test IR communications with your printer, and tap on **Test Print** to produce a simple printed message to verify that you have printing set up correctly. After that you won't need to interact with **SCS Print Server** directly again, you'll just print from your other application(s) which will send their information to **SCS Print Server** to print.

Printing Memos

Tapping on **Memo** from the main **PalmPrint** screen will bring you to a new screen on which will appear a list of all your memos (showing you the first line or so of the memo).



There are three options for printing memos; the current option is shown on the large button in the center of the bottom of the screen. If you display all your memos (as selected by the "category selector" in the upper right hand as shown in the example above), the button reads **Print All Memos** and if you tap it, ALL your memos will be printed, one after the other (you'll actually be required to confirm your request in case you do this by accident). If you use the category selector to select just one category of memos, you'll see this instead:



Now the button on the bottom reads **Print Category**, and if you tap the button, all the memos in just that one category will be printed, one after the other.

To print just a single memo, tap the stylus on the memo you want to print (it doesn't matter whether you are displaying "All" categories or just one category), using the scroll arrows in the lower right of the screen if all your memos don't appear. The memo you select will be inverted (white text on a black background), like this:



The button now reads Print This Memo, and if you tap it, that's what will happen. If you tap the wrong memo, don't worry, just tap on another one (or tap the same one again to "unhighlight" it. Of course, after you print one memo, you can select another memo to print. When you're done, tap the **Done** button to return to the main screen.

There are a few special features of the memo screen. First, you'll see a **Show** button, which displays the first 1024 characters of the memo, so if you can't tell which memo you want to print from just the first line (which is all that is displayed), tap the **Show** button (note that the memo is not editable in this mode; to modify your memo, you must use the Palm Memo Pad application). Second, the memo display, unlike the display in the normal Palm Memo Pad application, skips over leading blank lines and blank spaces. This allows you to use **PalmPrint** to do such things as have a memo configured to print on letterhead paper, spaced down several lines to skip over the preprinted address, but still allows you to identify the memo in the display (instead of just seeing a blank line).

Advanced Printing of Memos - Control Codes and more

PalmPrint is written to be printer independent, so that if you have something that you print on one type of printer, you can switch to another type of printer and still get the same output. As a result of

this, however, **PalmPrint** doesn't take advantage of some of the special features built into particular printers, which are usually accessed using special non-printing "control codes" (sometimes called "Escape sequences"). If you are willing to sacrifice printer independence, **PalmPrint** lets you embed these special codes directly into your memos, letting you change font size, switch to bold or italics, print a barcode, or a myriad of other things.

The heart of this special notation are pairs of double angle brackets - "double-less than" symbols and "double-greater than" symbols, surrounding one to three digits which are the numeric value of the control code - <<27>>, <<18>>, etc. These special symbols ARE found on the built-in keyboard of the Palm, but they have no Graffiti equivalent, so to create a memo containing these symbols, you'll need to use the built-in (pop-up) keyboard (or download them from the desktop). Once you do this once, doing it the second time can be done most simply by copying from the first memo and pasting into a new one. **Note carefully:** in this manual, we represent these symbols by two separate one-character symbols (e.g., "less than, less than") because many web browsers don't display these special characters properly. But the proper character to use are SINGLE characters (characters 171 and 187 respectively for those with an interest in the details), which are found in the lower right corner of the "Int'l" portion of the popup keyboard on the Palm.

As a simple example, "ESC"-W-1 turns on a special "double-wide" mode on a Canon printer, and "ESC"-W-0 turns it off. So the following memo would print with a special "headline" at the top (27 is the numeric value of the ESC character):

```
<<27>>W1 This is the headline
<<27>>W0And the normal text is starting here
```

If you want to make a note to yourself of what you are doing with the control codes, you can take advantage of this special feature - if the material enclosed between the double angle brackets is non-numeric, it is taken as a comment and simply ignored. Since the first line of a memo is what shows on the list of memos, you can use this feature to make a note of the relevance of the memo which follows. The following example would produce the same output as the example above:

```
<<Memo with headline>><<27>>W1 This is the headline
<<27>>W0And the normal text is starting here
```

Printing ToDo List Information

Tapping on **ToDo List** from the main **PalmPrint** screen pops up a small window which looks like this:



First select the category of items to be printed, or select All to print all ToDo items. If you want to print items which have been marked as completed, check the box, otherwise those items will be omitted from the output. Also check whether you want any notes attached to your ToDo items to be printed (or not). Tap on **OK** to actually print the ToDo list, or **Cancel** if you change your mind. The printout includes the ToDo item itself, any Note which is attached to the ToDo item (optional), the Category of the ToDo item, the Priority, and the Due Date (if one is present).

Printing Address Book Information

Tapping on **Address** from the main **PalmPrint** screen will display this screen (assuming that you installed the companion program `PalmPrint_Address`; if you did not, you will be told that you need to do so to print information from the Address Book):

Select Name ▼ Business ⓘ	
▼ Name	▼ City, State
Acosta-L... Gabriel	Santa Clara, CA
Barnett, Shawn	Rancho C...ova, CA
Dyszel, Bill	New York, NY
Hawkins, Jeff	Mountain View, CA
Horrocks, Steven	Orlando, FL
Hoxie, Rob	Trumbull, CT
Ladd, Kim	Seattle, WA
Leeper, Paul D.	Santa Clara, CA
Lemke, Steve	Mountain View, CA

ABCDEFGHIJKLMNOPQRSTUVWXYZ

[All Info] [Addr] [Done] Find: 🔍

This screen is similar, but not identical to, the standard Address Book screen. On the top line is the Category selector, as in the Address Book. But on the top of the two columns of information, there are two pop-up lists, which display a variety of choices:

Name

- Company
- Address
- City, State
- Zip Code
- Work
- Home
- Fax
- E-mail
- Custom 1
- Custom 2
- Custom 3
- Custom 4

These choices are there for two reasons. First, by letting you select the type of information displayed, you can choose the information which lets you recognize the name and address you are looking for most easily. And second, the heading in the first column is used in conjunction with the Find feature on the bottom of the screen to limit the choices. So if, from the sample screen shown above, you set the first column selector to Name and then tap the letter "H" below the list of names (or use Graffiti to enter "H"), the screen will now look like this:

Of course you can continue; tapping "O" at this point would display only names starting with "HO", and so on. But if the first column were set to Company, then tapping H will display those names where the company starts with the letter H, rather than the name. Note that the Address Book itself can only be sorted in two ways (by name or by company). If the column 1 heading does not match the Address Book sorting, then the names shown in this list will not be in alphabetical order, but you can still use the Find feature to find names starting with the letter of interest.

Once you locate the name you are looking for, tap on it once to highlight it (it will turn into a "reverse video", white letters on black background, to indicate that). Now you have three choices - tap on it a second time to popup a window showing you the full details of that name, tap on **All Info** to print out all the known information about that name, or tap on **Addr** to print out the name and address (suitable for labels or envelopes).

There is one more setting, contained in the **Envelope/Label** menu you'll see when you tap the Palm Menu button. This menu will display a screen allowing you to configure envelopes or mailing label printouts:

The left and top margins are straightforward. There are also left and top margin settings in the main part of **PalmPrint** (described above), but often when printing envelopes or labels you'll want different settings (you might need to print closer to the edge of the envelope, for example) so this screen lets you enter settings independent of the standard settings. In addition, if you are printing envelopes, the address will often be further offset by a certain amount both horizontally and vertically; the **Address offset** settings let you configure that position. Orientation is self-explanatory, but as explained above, this only applies on certain printers (PostScript and PCL printers). **Font** is also self-explanatory; again, this setting lets you choose a standard font for envelopes or labels which differs from the standard choice in the rest of **PalmPrint** (note that when

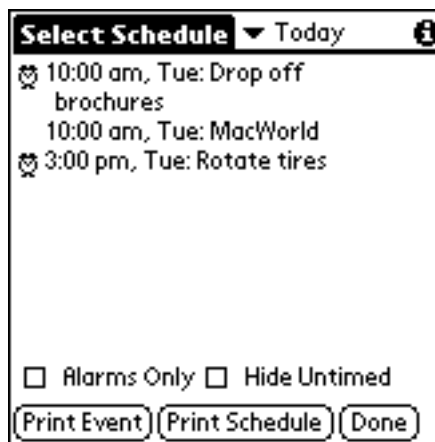
you print **All Info**, Courier font is always chosen so that things will line up nicely). And finally, for printing your envelopes, you can specify a return address to be printed.

In the **Settings Menu** you will also find another menu choice: **Temporary Address**. Select this when you want to print an envelope for a name/address which is NOT in your Palm Address Book. Just enter the name in the box which appears and tap **Print**.

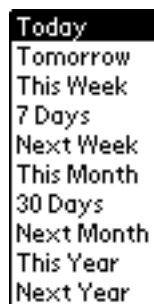
This application lets you print just a single name/address at one time. If you have more complex needs, such as the need to print entire sheets of mailing labels, print phone lists, manage mailing lists, or even perform mail merge operations, we have another application, **SnailMailer**, which includes those features (**SnailMailer** is sold separately).

Printing Datebook Information

Tapping on **Schedule** from the main **PalmPrint** screen displays this screen which lets you print parts of your schedule taken from the Palm DateBook application:



In the upper right is the schedule selector, which offers you these choices:



Choose the period of time for which you want to print your schedule; note that whatever you pick, the software will only print events starting with today, never past events (you can always do that from your Palm desktop software). Tap on **Print Schedule** to print the entire schedule for the selected period, or tap on an event to highlight it and then tap on **Print Event** to print just that event (tapping on a highlighted event a second time will display the full details of that event on screen).

The two check boxes on the bottom of the screen, **Alarms Only** and **Hide Untimed**, let you limit the events which are displayed (and printed).

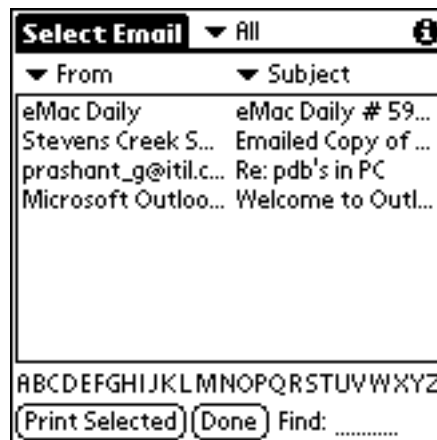
Printing A Test Page

The very last button on the main **PalmPrint** screen is labelled **Other**, which will show you a list of other possibilities for printing. The only fixed choice on this list is **Test Page**. If you select **Test Page** from the list and then tap **Other**, a test page showing you the different fonts and font sizes available will print out.

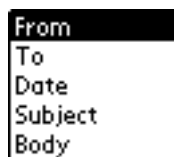
Printing Emails

Other applications may appear in the popup list next to the **Other** button, depending on which of the optional "plug-in" modules for **PalmPrint** are installed in your Palm. As of this writing, there are four other released plug-ins: `PalmPrint_Mail.prc`, `PalmPrint_Eudora.prc`, and `PalmPrint_iMessenger.prc`, for printing from the Palm Mail, Eudora, and Palm VII iMessenger applications, respectively, and `PalmPrint_Expense.prc`, for printing from the Palm Expense application. If either of these are installed in your Palm, you will see an item or items in the popup list reading **Email (Mail)**, **Email (Eudora)**, **Email (iMessenger)**, and/or **Expenses**. Note that several other email applications, including OneTouch Mail, MultiMail Pro, and others, have built-in support for printing via **PalmPrint**, so for those applications, you simply go to that application, and use the Print button or menu found in that application in order to print (read the manual of those products for more information about this).

Selecting **Email (Mail)**, **Email (Eudora)**, or **Email (iMessenger)** and then tapping **Other** brings you to this screen:



A list of your emails is displayed; you can select the category (InBox, OutBox, etc.) on the top line to display just the ones of interest. There are two columns; at the top of each column is a popup list that lets you select what is displayed in that column:



(Note that "Date" does not appear in the iMessenger screen). The first column heading is more important, because you can use it in conjunction with the "Find" feature on the bottom of the screen (and the series of letters below the email list) to limit the emails to those in which the selected information (except for the date, of course) starts with the letter or letters in the Find field. Thus tapping "M" will display only emails from someone whose name starts with "M" if the first column is a From field; if the first column is a Subject field, it will display only those emails whose subject

starts with "M".

Once you have selected an email by tapping on it, you can tap again to display its full information on screen, or tap **Print Selected** to print it. Tap **Done** to return to the main **PalmPrint** screen.

Printing Expense Reports

Selecting **Expenses** from the popup list and then tapping **Other** brings you to this screen, showing a listing your expenses:



The screenshot shows a screen titled "Category" with a dropdown menu set to "New York". It displays a list of expenses with columns for date, amount, and category. The expenses are: 1/11, 14.00 Entertainment; 1/12, 3.00 Breakfast; 1/13, 123.00 Car Rental; 1/13, 56.56 Dinner; 1/13, 3.50 Fax; and 1/13, 768.00 Hotel. A horizontal line separates the last entry from the "TOTAL" of 968.06. At the bottom, there are checkboxes for "All" (checked), "From" (1/11), and "To" (1/18). Below these are "Print" and "Done" buttons.

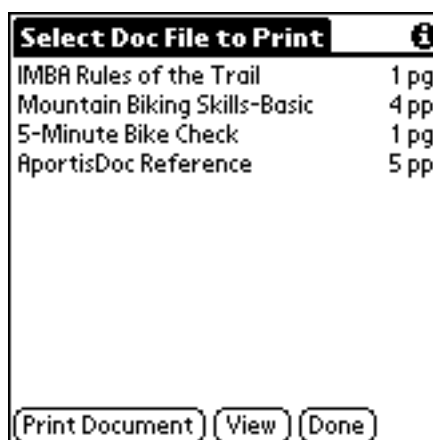
Date	Amount	Category
1/11	14.00	Entertainment
1/12	3.00	Breakfast
1/13	123.00	Car Rental
1/13	56.56	Dinner
1/13	3.50	Fax
1/13	768.00	Hotel
TOTAL		968.06

☒ All ☐ From 1/11 To 1/18

On the top line, you can select a category for a particular business trip, which is how the Expense application groups expenses. On the bottom of the screen, you can check **All** to show all expenses in that category, or check the **From** box and set starting and ending dates for the expenses that you want to display (and print) and then tap **Print** to print out the expense report. You can also tap on any item to highlight it, and then tap again to display a screen showing the details of that expense (all the details which you recorded will appear on the printout).

Printing "Doc" Files

The "Doc" file format is a popular format on the Palm; thousands of documents are available to read on your Palm in this format, and several programs are available on the desktop to convert Microsoft Word and other files into this format for downloading and viewing on your Palm. To view and print files in this format, select **Doc Files** from the popup list and then tap **Other**. You will then see a screen showing you all Doc files which have been found in your Palm:



The screenshot shows a screen titled "Select Doc File to Print". It displays a list of documents with their names and page counts: IMBA Rules of the Trail (1 pg), Mountain Biking Skills-Basic (4 pp), 5-Minute Bike Check (1 pg), and AportisDoc Reference (5 pp). At the bottom are "Print Document", "View", and "Done" buttons.

IMBA Rules of the Trail	1 pg
Mountain Biking Skills-Basic	4 pp
5-Minute Bike Check	1 pg
AportisDoc Reference	5 pp

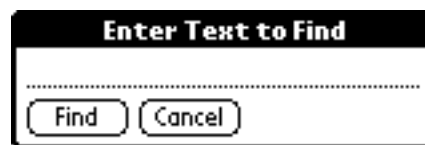
You see displayed the name of each document, and the *approximate* length of the file in printed pages. The length is approximate, because without actually printing the document, it's impossible to know how many short or even blank lines are contained in the document. A file containing 50 characters, for example, could all print on a single line, or it could contain 50 "return" characters and thus take 50 lines to print.

To select a document, just tap on it, which will highlight the name. At this point you can tap **Print Document** to print the entire document, or either tap the **View** button or simply double-tap the name of the document to view it on a different screen:



Doc files are divided into sections, and the `PalmPrint_Doc` program displays one section (more or less) at a time. You can scroll within a section with the scroll bar on the right edge of the screen, or move from section to section with the left and right arrows in the lower right-hand corner of the screen. Tapping on **Print Selection** will print the entire section. Alternatively, you can first drag across a section of text (if you drag off the bottom or top of the screen, the screen will scroll continuously until you stop) to select it (the selected text will be highlighted). Now tapping **Print Selection** will print only the selected text, which allows you to print chunks of the document in question without worrying about exceeding the Palm's clipboard limit (1000 using the standard PalmOS).

If you are looking for a specific piece of text, tap **Find** and you'll get a chance to enter some text to find:



Enter the text, which is case-sensitive, and tap **Find** (or **Cancel**). If you want to find the same text again, just tap **Find** on the main **Details** screen, then **Find** again on the **Enter Text** screen, and you'll see the next occurrence of the string, or get a warning beep if the string is not found. Searches will occur across the entire document, not just within sections. Searches are always done in the forward direction.

Doc files can have "bookmarks," which are often written into the text as "(bm)" or similar strings. Some Doc viewer programs display these bookmark symbols on-screen, which seems silly since they are not really part of the text itself. `PalmPrint_Doc` does not display (or print) these bookmark symbols.

Although it is not intended to be a "full-featured" Doc file viewer (like QuickWord or Documents to Go), you may find that it is perfectly suitable for your needs, and that you don't need a separate Doc viewer program on your Palm. If so, there's one more feature you need, which is the ability to delete

Doc files which have been downloaded into your Palm. On the main screen of `PalmPrint_Doc`, you'll find a single menu item: **Delete**. If you highlight a file by tapping on it, selecting the **Delete** menu will delete that file from your Palm (there is no "are you sure?" warning, since even if you select this by mistake, which seems highly unlikely, you can always download the file again from your desktop).

Printing Information from the Clipboard

For applications which don't support **PalmPrint**, you may still be able to use the "Clipboard" to select text to be printed with **PalmPrint**. Information is put on the Clipboard by other applications, using either the **Copy** or **Cut** functions in the **Edit Menu** of that application. You'll find these menu choices in all the built-in Palm applications, as well as a wide variety of other applications available for the Palm. Tapping on **Clipboard** from the main **PalmPrint** screen prints the current contents of the Clipboard.

Monitoring and Cancelling Printing

When you print, the lower portion of the screen will display a small "status window" which lets you know what's happening. This is particularly valuable for IrDA printing, since you'll want to know if the transmission is occurring, and when it's done, so watch the screen and see what it says (you need to keep pointing the Palm at the printer while it is transmitting data!). There is a **Cancel** button in this window; if something goes wrong, or for some reason you want to abort the printout, just tap on **Cancel** (under some conditions you may have to hold the stylus down on the **Cancel** button for a few seconds; it does not always respond instantaneously like most buttons on the Palm).



Printing from Other Applications

PalmPrint was written to allow other applications running on your Palm to use it to do the printing for them. For example, our **Take An Order!** software is one such application, which lets you do business in the field, taking orders (or preparing quotations) and printing receipts (or estimates) on the spot. **SnailMailer** is another, which does mailing list management, mail merge, and more. To print or transmit data from such applications, you will usually find a menu item or a button in that application which will send the information (transparently to you) to **PalmPrint** for printing or transmission. You won't interact with **PalmPrint** directly in this case. However, before using the other application to print for the first time, you must use **PalmPrint** itself and configure it properly (as discussed in [Chapter 2](#)). When you leave **PalmPrint**, your configuration settings are saved, so that when the other application sends data to **PalmPrint**, it will print correctly.

You'll find a current list of applications which support printing via **PalmPrint** at <http://www.stevenscreek.com/palm/palmprintapps.html>.

If another application doesn't support **PalmPrint**, then you may be able to use the **Print Clipboard** function described above to print information from that application. You might also want to write to the application's developer, and encourage them to support **PalmPrint**.

Chapter 4: Hardware Considerations

Serial and Parallel Connectivity

If you don't have infrared capability, one of the most difficult aspects of using **PalmPrint** for most people is getting the hardware configured properly. Most Palms have a serial connector, and most printers have parallel input (serial connections send one bit of information at a time, while parallel connections send eight bits of information at once using a larger number of wires). If your PalmOS handheld unit does NOT have a serial output, you will only be able to print via infrared. If your handheld unit has a combination serial/USB connector (e.g., Handspring Visor), you MAY be able to print via cable, as described below.

If you have a printer which accepts serial input, the connector on the printer will often be a "DB-25 female" connector. This is a long connector, slightly wider on one side than the other, with 13 holes on the wider side and 12 on the other side. To plug into this connector you need a DB-25 male cable. The standard output from the Palm, whether the Palm is in the cradle or you are using the "HotSync cable" available from 3Com, is a DB-9 female (9 holes, 5 on the slightly wider side, 4 on the other) connector. For this situation, you will need a DB-9 male to DB-25 male cable, an item you can find in most computer or electronics stores or catalogs and at one time included standard with Palm devices.

With most printers, the "polarity" of the connection may be wrong. If you see no response from your printer whatsoever, it is likely that you need a "null modem" device (which swaps two of the lines on the input) or else a null modem cable. You can find inexpensive 9-pin or 25-pin null modems at most computer and electronics stores; Mark/Space (www.markspace.com) sells null modem serial cables (also simply called modem cables) to connect to a variety of Palm handheld units (including the Palm III, Palm V, and Handspring Visor).

Note that if you have a Handspring Visor and a serial cradle, you can connect the cradle cable (usually via a null modem) to the input of a serial printer and printer. If you have a USB cradle, you cannot do this.

If you have a printer which accepts parallel input, the connector on the printer will almost always be a "Centronics" connector. Note that you **cannot** simply connect a cable such as a DB-9 male to Centronics between your Palm and your printer. Cables like that are made to take the parallel output of a PC (usually available on a DB-25 connector but sometimes on DB-9) to the parallel input of your printer. You must instead have a "serial to parallel converter", which is a more complex (and more expensive) device which converts the serial output of the Palm to a parallel signal which can be accepted by your printer. Stevens Creek Software sells two such cables, one which attaches directly to a Palm III or Palm VII, and a second which attaches to a 9-pin female serial connector which is the type found on the end of a serial HotSync cradle or HotSync cable. Visit the [PalmPrint](#) web page for details.

If your printer manual describes the connector as a "bi-directional" parallel cable, chances are very good you will NOT be able to use a serial-to-parallel converter cable, which seem in almost all cases to be incompatible with the bidirectional parallel printers.

Note that if you have a Handspring Visor and a serial cradle, you CANNOT connect the cradle cable to the serial to parallel converter cable (and then to the printer). If you want to print to a parallel printer, you must have not only the serial to parallel converter cable mentioned above, but also a special Handspring serial cable (the DCH-H9) sold by Mark/Space (www.markspace.com).

If you have a printer which accepts USB input, this is of no use, even if you have a Palm

handheld that is also a USB device. USB is a "master-slave" connector, and both printers and Palm handhelds are configured as "slaves." You cannot connect two slaves together via USB, so you will not be able to print to a USB printer.

Infrared to Parallel Adapters

There are also several "infrared to parallel" adapters on the market which essentially add an infrared (IrDA) port to your printer by attaching to the existing parallel port. Unlike the serial to parallel printer adapter cables, infrared to parallel adapters seem to work on all parallel printers, regardless of whether they are "bidirectional" parallel printers or not. We have tested the following:

- ACT-IR100M from Actisys Corporation (<http://www.actisys.com/actir100.html>)
- JetEye (ESI9580) from Extended Systems
- ExtendNet 100s Print Server from Extended Systems
- Psion Infrared Printer Adapter (<http://store.yahoo.com/psion-shop/ir-printercable.html>)

Of these, the Psion is battery powered making it fully mobile (but of course this provides the disadvantage that the batteries may go dead without you realizing it); the others come with AC adapters and must be plugged in. The Actisys has the advantage of having a "passthrough" port so that a computer can remain connected to the parallel port at the same time; the Psion replaces the printer connection.

See <http://www.stevenscreek.com/palm/palmprintconnectivity.html> for the latest updates.

Bluetooth to Parallel Adapters

There are also several "Bluetooth to parallel" adapters on the market which essentially add a Bluetooth port to your printer by attaching to the existing parallel port. We have tested the following:

- Troy WindConnect
(<http://www.troypgroup.com/wireless/products/wireless/windconnect.asp>)
- MPI Tech Bluetooth Printer Adapter (marketed by HP)
(http://www.shopping.hp.com/cgi-bin/hpdirect/shopping/scripts/product_detail/product_detail)
- Epson Bluetooth Print Adapter

All three of these are "powered" adapters (that is, they come with an AC adapter and must be plugged in), and none, unfortunately, comes with a "passthrough" port allowing your computer to remain connected to the parallel port of the printer. The Epson works, as far as we can determine, ONLY with Epson printers; the Troy and the MPI (HP) work with all types of printers that we have tested. Of these, the MPI has the advantage that it identifies the printer to which it is attached, which means that **PalmPrint** can automatically switch to the appropriate printer language (HP/PCL, Epson, etc.) depending on the printer which it detects. The Troy identifies itself only by its generic name ("XCD"), which means that you need to select the printer type in **PalmPrint** manually. If you only print to one printer, of course, this will make little difference.

See <http://www.stevenscreek.com/palm/palmprintconnectivity.html> for the latest updates.

Notes on Specific Printers (Mandatory & Suggested Settings)

Brother MPrint MW-100

- Printer Type: Brother MPrint
- Baud Rate: IrCOMM
- Left/top margins: as desired
- Chars/line and lines/page: Will be set to maximum values as you change the Font and Font Size settings. Set to lower values if desired. These settings are appropriate for the standard (C-11) paper used with the printer; use of other paper sizes may require different settings.

Canon BJC-50 and BJC-80

- Printer Type: Canon
- Baud Rate: Infrared (Serial-to-Parallel printing is also possible to the BJC-80 only if you have an older Palm lacking infrared)
- Notes: Both of these printers should work flawlessly with any Palm, Symbol, or Visor unit. There is one "catch." These printers have two "modes"; one called "BJ" and the other called "LQ". The printer **MUST** be in the "LQ" mode for it to work with **PalmPrint**. If **PalmPrint** does not appear to be working, check the manual that came with your printer for instructions on switching the printer to "LQ" mode.

Citizen PD-04

- Printer Type: Epson
- Baud Rate: Infrared
- Left/top margins: 0
- Chars/line: 46
- Lines/page: 0

Citizen PN-60i

- Printer Type: Epson
- Baud Rate: Infrared
- Left/top margins: 7/5
- Chars/line: 78
- Lines/page: 52

Datamax E-3202

- Printer Type: ESCPOS
- Baud Rate: 57600 (Serial - requires a "null modem" cable available from Datamax)
- Use CTS Transmit Flow Control: checked
- Left/top margins: 4/4 - Left margin setting is also used on the right; top margin is also used on the bottom.
- Chars/line: Will be set to maximum values as you change the Font and Font Size settings. Set to lower values if desired.
- Lines/page: 0
- Notes: Printer must be configured in ESCPOS mode, not Epson mode. Baud rate can be changed on printer, and must be set in PalmPrint to match, but there is no reason not to use the highest setting on both (57600).

Hewlett-Packard LaserJets

- Printer Type: PCL (or PostScript if your printer accepts it, although PCL will be faster because fewer characters need to be transmitted).
- Baud Rate: Infrared for units with built-in infrared including the 5P, 6P, and 2100; Serial-to-Parallel printing is also possible for almost all LaserJets and some even have serial ports as well.
- Chars/line (the following applies if you are using the **HP (Palm fonts)** mode of printing; otherwise the setting is up to you): When Courier font is selected, automatically adjusted to 92 for 9-pt, 84 for 10 pt, and 74 for 12 pt. Can be changed subsequently if desired. For Times and Helvetica fonts, this setting is ignored; the width of the page is internally fixed so that the full page (except for left/right margins) will be used based on the width of individual characters on that line.
- Lines/page (the following applies if you are using the **HP (Palm fonts)** mode of printing; otherwise the setting is up to you): Automatically adjusted when you change point size to 62 for 9-pt, 52 for 10 pt, and 47 for 12 pt. Can be changed subsequently if desired.
- Notes: Newer units (6P, 2100) work flawlessly with **PalmPrint**. The 5P's appear to be problematic; some work, some don't; you need to test any particular printer to see if it does work (there are some timing issues between the IR on the 5P and the Palm which cause this problem).

Hewlett-Packard DeskJet 340/350

- Printer Type: PCL
- Baud Rate: Infrared with the IR attachment available for this printer; otherwise Serial-to-Parallel printing is also possible.
- Chars/line (the following applies if you are using the **HP (Palm fonts)** mode of printing; otherwise the setting is up to you): When Courier font is selected, automatically adjusted to 92 for 9-pt, 84 for 10 pt, and 74 for 12 pt. Can be changed subsequently if desired. For Times and Helvetica fonts, this setting is ignored; the width of the page is internally fixed so that the full page (except for left/right margins) will be used based on the width of individual characters on that line.
- Lines/page (the following applies if you are using the **HP (Palm fonts)** mode of printing; otherwise the setting is up to you): Automatically adjusted when you change point size to 62 for 9-pt, 52 for 10 pt, and 47 for 12 pt. Can be changed subsequently if desired.
- Notes: No known problems or special tricks.

Monarch 6015

- Printer Type: Monarch
- Baud Rate: 19200 (Serial)
- Use CTS Transmit Flow Control: MUST be checked
- Left/top margins: 0 (or larger if desired) - Left margin setting is also used on the right; top margin is also used on the bottom.
- Chars/line: 48, 42, 38, 32, and 24 are the acceptable values; as you decrease the number, the printer will print larger and larger characters.
- Lines/page: 0
- Orientation: With 24 characters/line only, Landscape (L) orientation can be used to print "sideways" characters
- Font: setting is ignored (font size is chosen on the basis of characters per line)
- Notes: Print quality seems to depend on batteries. In our experience you can only get good quality with high-energy (nickel-metal hydride) batteries.

O'Neil 2t

- Printer Type: Text w/Breaks
- Baud Rate: Infrared (or 9600 if using cabled serial connection)
- Left/top margins: 0/3 - Left margin setting is also used on the right; top margin is also used on the bottom.
- Chars/line: 38
- Lines/page: 0

O'Neil 8i

- Printer Type: Text w/Breaks
- Baud Rate: Infrared (or 9600 if using cabled serial connection)
- Left/top margins: 0/0 - Left margin setting is also used on the right; top margin is also used on the bottom.
- Chars/line: 80
- Lines/page: 56

Pentax PocketJet 200

- Printer Type: PocketJet 200
- Baud Rate: Infrared (Fast) [Very important; may not work in "Infrared" setting], or 57,600 if connecting via cable
- Use CTS Transmit Flow Control: MUST be checked if using serial (cabled) printing
- Left/top margins: as desired. Left margin setting is also used on the right; top margin is also used on the bottom.
- Chars/line: When Courier font is selected, automatically adjusted to 124 for 9-pt, 114 for 10 pt, and 100 for 12 pt. Can be changed subsequently if desired. For Times and Helvetica fonts, this setting is ignored; the width of the page is internally fixed so that the full page (except for left/right margins) will be used based on the width of individual characters on that line.
- Lines/page: Automatically adjusted when you change point size to 78 for 9-pt, 66 for 10 pt, and 57 for 12 pt. Can be changed subsequently if desired. If using roll feed paper, set lines/page to 0 and make sure that the top margin is set to a value other than 0.
- Orientation: Portrait only is supported
- Manual Feed: If checked, the software will pause before each page and wait for you to tap "OK" on the screen before proceeding. Should be UNchecked if you are using roll feed paper.

Pentax PocketJet 3/3Plus

- Printer Type: PocketJet 3. In this mode, the printer supports proportionally spaced printing for Times and Helvetica fonts only in 10-pt. type; in 9- and 12-pt. type, only fixed space printing is available in all fonts. Setting Printer Type to "PocketJet 200" supports proportional printing in all sizes, but using much slower bitmap printing.
- Baud Rate: IrCOMM (if running on a handheld device with PalmOS 3.5 or higher) or Infrared (Fast) if running on earlier PalmOS devices. Note: If the printer is connected to a desktop computer via the USB port, the IR port is inactive. You must disconnect the USB plug and power-cycle the printer in order to activate the IR port.
- Left/top margins: as desired. Left margin setting is also used on the right; top margin is also used on the bottom.
- Chars/line: Will be set to maximum values as you change the Font and Font Size settings. Set to lower values if desired.
- Lines/page: 64. If using roll feed paper, set lines/page to 0 and make sure that the top margin is set to a value other than 0.

- Orientation: Portrait only is supported
- Manual Feed: If checked, the software will pause before each page and wait for you to tap "OK" on the screen before proceeding. Should be UNchecked if you are using roll feed paper.

Seiko DPU-3445

- Printer Type: Seiko
- Baud Rate: Infrared (Fast) [Very important; will not work in "Infrared" setting]
- Left/top margins: 0 (or larger if desired) - Left margin setting is also used on the right; top margin is also used on the bottom.
- Chars/line: Will be set to maximum values as you change the Font and Font Size settings. Set to lower values if desired.
- Lines/page: 0

SiPix Pocket Printer A6

- Printer Type: SiPix Pocket Print
- Baud Rate: Infrared, or 115,200 if connecting via cable
- Use CTS Transmit Flow Control: MUST be checked if using serial (cabled) printing
- Left/top margins: as desired. Left margin setting is also used on the right; top margin is also used on the bottom.
- Chars/line: When Courier font is selected, automatically adjusted to 56 for 9-pt, 52 for 10 pt, and 42 for 12 pt. Can be changed subsequently if desired. For Times and Helvetica fonts, this setting is ignored; the width of the page is internally fixed so that the full page (except for left/right margins) will be used based on the width of individual characters on that line.
- Lines/page: Automatically set to 31. If using roll feed paper, set lines/page to 0 and make sure that the top margin is set to a value other than 0.
- Orientation: Portrait only is supported
- Manual Feed: If checked, the software will pause before each page and wait for you to tap "OK" on the screen before proceeding. Should be UNchecked if you are using roll feed paper.

Zebra TR220

- Printer Type: Zebra TR 220
- Baud Rate: 9600
- Use CTS Transmit Flow Control: CHECKED
- Left/top margins: as desired. Left margin setting is also used on the right; top margin is also used on the bottom.
- Chars/line: When the font size is changed, will be adjusted to the recommended setting.
- Lines/page: Set to 0 when printing on continuous media (receipt printing), or to something other than 0 (e.g., 10) when printing on label stock. If printing on label stock, you must run the "label height calibration" procedure described in the TR220 manual.
- Orientation: Portrait only is supported
- **Software issues:** When used in conjunction with a Symbol SPT1700, the files PowerDrv35.prc and 1700_Trigger_ScanMgr.prc, which you should have received together with the printer hardware, MUST be installed in the 1700. On an SPT1800, these files should NOT be installed, however, on an SPT1800 running PalmOS 4.1 or higher, you MUST go the Palm Preferences ("Prefs") application, select the "Symbol" preferences, and make sure that the "Enable Trigger Sled" option is checked.

Using PalmPrint to Transmit Data to A Computer

NOTE: PalmPrint can transmit data to a computer ONLY if the computer AND the Palm are connected via a serial connection. If the two are connected via USB (or using IrDA or Bluetooth), the following section does not apply. You MAY be able to use the "IRCOMM" protocol or Bluetooth, configure a "pseudo-serial" port on your PC, and send data from the Palm to a computer, but this is not supported by us at this time nor documented below.

To transmit data to a computer via serial connection, the connector which you use to perform a HotSync is the proper connector. The only "trick" here is that you must first turn off HotSync on your desktop computer, because you are going to establish a connection between your Palm and your computer which bypasses the standard HotSync software. Of course, you won't need this trick if you are transmitting information to a computer which is not running HotSync at all. Once you turn off HotSync (if necessary), start your terminal emulation software (whether standalone, or the Communications module of a "works" program such as ClarisWorks), configure the connection settings (primarily the baud rate) within your desktop software, and make sure to select the button or menu item which opens the connection between the terminal emulation software and the serial port of your computer (it is usually not opened automatically). Some step-by-step examples follow for software commonly available:

Using HyperTerminal (Windows 98)

If you have Windows 98, here are complete instructions for transferring information from your Palm to your desktop computer, using the HyperTerminal application which is included with Windows 98:

1. Stop your **HotSync** program (if it is running), but leave the cabling from your Palm to your computer exactly as it was.
2. Select **Start Menu -> Programs -> Accessories -> Communications -> HyperTerminal**
3. Double-click on **Hypertrm.exe**
4. In the **Connection Description** screen, enter as the **Name:** Palm (or any other name), and select any icon.
5. In the **Connect To** screen, set the menu to **Connect Using:** Direct to Com1 (or whatever Com port you are using to connect your Palm). Ignore the area code and phone number fields.
6. In the **Port Settings** screen, set the **Bits per second** (known as the Baud rate in **PalmPrint**) to any number; try 57,600 first. Set the **Data bits** to 8, the **Parity** to None, the **Stop bits** to 1, and **Flow Control** to Hardware. Click **OK**.
7. In the **Call Menu**, select **Call**. Actually this will be done automatically after step 6 when you are first setting up the configuration; you'll only need to do this yourself on subsequent connections.
8. Start **PalmPrint** on your Palm, set the **Printer Type** to Plain Text/None or Text w/Breaks, and the **Baud Rate** to the same number to selected at step 7. Now whatever you "print" from **PalmPrint** (or any other application which uses **PalmPrint** to do its printing) will appear in the HyperTerminal screen. If you select **Capture Text** from the **Transfer** menu, you can capture the information to a file. **To send the information directly to a printer**, check **Capture to Printer** in the **Transfer** menu. Print what you want from your Palm, then UNcheck **Capture to Printer**, and the material you have printed will be passed on to the printer connected to your computer.
9. When you exit **HyperTerminal**, answer **Yes** when asked if you want to save this session. An icon (which you selected at step 4 above) will appear in the **HyperTerminal** folder. In future sessions, you can just double-click on this icon, and start at step 7.

Using HyperTerminal (Windows 95)

If you have Windows 95, here are complete instructions for transferring information from your Palm to your desktop computer, using the HyperTerminal application which is included with Windows 95:

1. Stop your **HotSync** program (if it is running), but leave the cabling from your Palm to your computer exactly as it was.
2. Select **Start Menu -> Programs -> Accessories -> HyperTerminal**
3. Double-click on **Hypertrm.exe**
4. The **Location Information** window which appears is irrelevant. You must fill in your area code (it won't proceed if you don't), then click **OK**.
5. In the **Connection Description** screen, enter as the **Name:** Palm (or any other name)
6. In the **Phone Number** screen, set the menu to **Connect Using:** Direct to Com1 (or whatever Com port you are using to connect your Palm).
7. In the **Port Settings** screen, set the **Bits per second** (known as the Baud rate in **PalmPrint**) to any number; try 57,600 first. Set the **Data bits** to 8, the **Parity** to None, the **Stop bits** to 1, and **Flow Control** to Hardware. Click **OK**.
8. In the **Call Menu**, select **Connect**.
9. Start **PalmPrint** on your Palm, set the **Printer Type** to Plain Text/None Or Text w/Breaks, and the **Baud Rate** to the same number to selected at step 7. Now whatever you "print" from **PalmPrint** (or any other application which uses **PalmPrint** to do its printing) will appear in the HyperTerminal screen. If you select **Capture Text** from the **Transfer** menu, you can capture the information to a file. **To send the information directly to a printer**, check **Capture to Printer** in the **Transfer** menu. Print what you want from your Palm, then UNcheck **Capture to Printer**, and the material you have printed will be passed on to the printer connected to your computer.
10. When you exit **HyperTerminal**, answer **Yes** when asked if you want to save this session. An icon (which you selected at step 4 above) will appear in the **HyperTerminal** folder. In future sessions, you can just double-click on this icon, and start at step 8.

Using Terminal (Windows 3.1)

If you have Windows 3.1, here are complete instructions for transferring information from your Palm to your desktop computer, using the Terminal application which is included with Windows 3.1:

1. Stop your **HotSync** program (if it is running), but leave the cabling from your Palm to your computer exactly as it was.
2. Start the **Terminal** application.
3. Select **Communications** from the **Settings** menu.
4. Set the **Baud Rate**; try 19,200 first. Set the **Data bits** to 8, the **Parity** to None, the **Stop bits** to 1, **Flow Control** to Hardware, and **Connector** to COM1 (or whatever port your Palm is connected to). Click **OK**.
5. Start **PalmPrint** on your Palm, set the **Printer Type** to Plain Text/None Or Text w/Breaks, and the **Baud Rate** to the same number to selected at step 4. Now whatever you "print" from **PalmPrint** (or any other application which uses **PalmPrint** to do its printing) will appear in the Terminal screen. You can use **Copy** in the **Edit** menu to copy the text to your Clipboard, and then transfer it to another application. Our attempts to use **Receive Text File** in the **Transfers** menu resulted in GPF crashes of the Terminal application, so we can't recommend that!

Using AppleWorks/ClarisWorks (Macintosh)

The Mac doesn't come with any standard terminal emulation software, but AppleWorks (formerly ClarisWorks) is probably the most popular program which includes a Communications module. Here are complete instructions for transferring information from your Palm to your Mac using

AppleWorks:

1. Stop your **HotSync** program (if it is running), but leave the cabling from your Palm to your computer exactly as it was.
2. Start **AppleWorks**, and open a new **Communications** document.
3. Select **Connection** under the **Settings** menu. Set the **Method** to **Serial Tool**. Set the **Current Port** to the one to which your HotSync cable is attached. Configure the **Baud Rate** to whatever you like; try 57,600 first. Set **Data Bits** to 8, **Parity** to None, **Stop Bits** to 1, and **Handshake** to DTR & CTS. Click **OK**.
4. Select **Open Connection** in the **Session** menu.
5. Start **PalmPrint** on your Palm, set the **Printer Type** to **Plain Text/None Or Text w/Breaks**, and the **Baud Rate** to the same number to selected at step 3. Now whatever you "print" from **PalmPrint** (or any other application which uses **PalmPrint** to do its printing) will appear in the Terminal screen. You can use **Copy** in the **Edit** menu to select information and then transfer it to other applications. Alternatively, use **Capture to File** in the **Session** menu to capture the text to a file; select **Stop Capture** when you're done.
6. If you want to print the information from your desktop to your printer, first select **Clear Screen** from the **Session** menu, then select **Clear Saved Lines**. Now "print" from **PalmPrint** to the screen of your computer. When done, select **Print** from the **File** menu in AppleWorks and you'll send the material on to your printer.
7. When you're done, select **Close Connection** in the **Session** menu.
8. Use **Save** in the **File** menu to save the session as a document. In the future you can just open that document and skip right to step 4.

Using Terminal (WindowsCE)

PalmPrint can also be used to transfer data from the Palm to a WindowsCE handheld computer. Unlike when you connect to a desktop computer, where the same cabling you use for HotSync'ing is appropriate, when you connect to a WindowsCE computer you'll need a null modem device of some type. We have connected the two with the following setup: a DB-9 male to DB-25 male cable, a DB-25 null modem, and the DB-25 female to DB-9 male adapter which comes with the Palm. No doubt simpler connections are possible. Once the connection is made:

1. Select **Start Menu -> Programs**.
2. Double-click on **Communications**.
3. Double-click on the **Terminal** application.
4. Click on **Make a New Connection**. Set the **Session Name** to something appropriate (like **Palm**), set **Select a Modem** to **Hayes Compatible** (this isn't true but it will be ignored). Enter an **Area Code** and **Telephone Number** because you are required to; they too will be ignored.
5. Click on **Configure** and make sure to check **Manual Dial**; this is the only real trick. Configure the **Baud Rate** to whatever you like (you just need to set the same Baud Rate within PalmPrint), **Data Bits** to 8, **Parity** to None, **Stop Bits** to 1, and **Flow Control** to **Hardware**. Click **OK** twice.
6. Double-click on the new icon (labelled **Palm** in our example). A "dialing" window will appear briefly and then disappear; you are now connected.
7. Start **PalmPrint** on your Palm, set the **Printer Type** to **Plain Text/None Or Text w/Breaks**, and the **Baud Rate** to the same number to selected at step 5. Now whatever you "print" from **PalmPrint** (or any other application which uses **PalmPrint** to do its printing) will appear in the Terminal screen. You can use **Copy** in the **Edit** menu to copy the text to your Clipboard, and then transfer it to another application.