

Guide to the Palm OS™ Software 3.3 Upgrade



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Contents

About This Guide.....	1
Assumptions	1
About the illustrations in this guide.....	1
About the Palm OS™ Software 3.3 Upgrade	2
The Upgrade Utility	3
New Currency: The Euro.....	4
Entering the euro in text	4
What changed?	5
Using the euro in Expense	5
Displaying the euro in your Desktop application	7
Changes to HotSync® Technology	9
New HotSync application interface	9
Increased top speed of HotSync operations	10
What changed?	10
All COM ports available.....	11
What changed?	11
Improved results of a hard reset	11
What changed?	12
IR HotSync® Operations	13
What changed?	13
Preparing your computer for infrared communication.....	14
Configuring HotSync Manager for infrared communication	17
Performing an IR HotSync operation	17
Returning to cradle HotSync operations.....	18
Frequently asked questions about IR HotSync operations	19
New Ways to Make Connections	21
What changed?	21
List of default configurations	22
Creating new configurations	22
Example 1: A connection for remote IR HotSync operations	24
Example 2: A TCP/IP connection	27
Login Script Enhancements	29
What changed?	29
Token-based authentication systems	30
Plug-in applications	30
New command: Wait For Prompt.....	31
New command: set queryDNS.....	31

Warranty and Other Product Information.....32
 Limited warranty 32
 3Com end user software license agreement 35
Index.....38

About This Guide

This guide describes the enhancements provided by the Palm OS™ software 3.3 Upgrade.

Assumptions

This guide makes the following assumptions:

- You are familiar with your handheld and your Desktop application.
- You know how to perform HotSync® operations to synchronize your data, and you are familiar with the HotSync Manager located on your desktop.
- You have access to the documentation for your handheld. This guide does not provide a complete description of the features affected by the 3.3 Upgrade. Rather, it describes the enhancements and their benefits, notes the features that the enhancements affect, and if necessary, describes how the enhancement changes the way you work with your handheld or Desktop application.

About the illustrations in this guide

The 3.3 Upgrade can be installed on several different kinds of Palm Computing® platform handhelds, and some illustrations in this guide may show the interface or form of a handheld that differs from the interface or form of your handheld. The illustrations should still serve to make clear what the feature is, where the feature is located, and how to use it.

About the Palm OS™ Software

3.3 Upgrade

The Palm OS™ software 3.3 Upgrade is available free of charge when you download it from the web site <http://www.palm.com>. The 3.3 Upgrade is also available on CD-ROM. For information on ordering the CD-ROM, go to <http://www.palm.com>.

The 3.3 Upgrade can be installed only on Palm Computing® platform handhelds equipped with Palm OS software version 3.0 or higher. Please consult the web site or the information supplied with the CD-ROM for details about which handhelds can accept this upgrade.

The 3.3 Upgrade includes changes to both your Desktop application (if you use Microsoft Windows) and the operating system of your handheld. Some of the enhancements are visible in the interfaces of your handheld and your Desktop application, and these enhancements may require some changes in the way you work.

Other enhancements make improvements behind the scenes. For example, the 3.3 Upgrade incorporates improvements made to the screen display of Palm Computing platform handhelds that use Palm OS software version 3.1. These behind-the-scenes improvements increase the speed and ease with which you use your handheld.

Macintosh users: The 3.3 Upgrade does not change your Desktop application. Also, before you use the enhanced infrared technology to perform HotSync operations, please consult the documentation for your Palm™ MacPac.

The 3.3 Upgrade offers Macintosh users the following:

- The upgrade utility
- Support on your handheld for the euro
- A new interface for the HotSync® application on your handheld
- A new Connection Preferences screen and a changed Network Preferences screen
- The ability to create plug-in applications that extend the functionality of login scripts, and a new login-script command, Wait For Prompt, available on your handheld

The Upgrade Utility

In the past, changes or enhancements to the basic operations of your handheld were distributed by means of a kind of add-on application (sometimes called a “patch”) that you installed on your handheld. The upgrade utility, which you use to install the 3.3 Upgrade, provides another, more efficient method of adding improvements to your handheld.

What changed?

The upgrade utility enables you to easily upgrade the most basic software of your handheld: its operating system.

The 3.3 Upgrade adds many improvements to your handheld, but those additions should cause no slow-down in the speed of its processing. That’s because enhancements incorporated into the operating system by means of the upgrade utility are more efficient in their use of your handheld’s resources than those installed by means of add-on applications.

Future enhancements to the operating system of your handheld are likely to be made available to you through this upgrade utility.

New Currency: The Euro

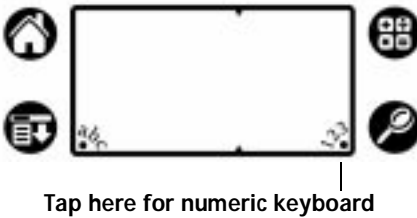
The euro is the currency of the European Union (EU). It was introduced in January 1999. The 3.3 Upgrade adds the symbol for the euro to the other symbols (dollar, yen, pound sterling) available in Graffiti® writing and on the onscreen numeric keyboard. The euro also appears in the Expense application.

Entering the euro in text

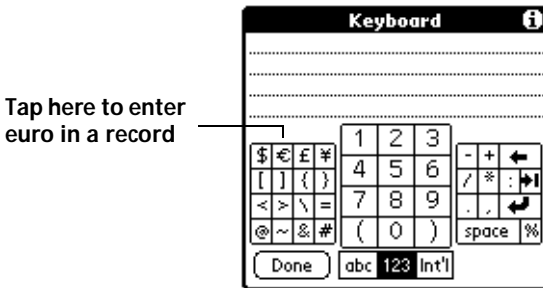
You can enter the euro symbol wherever you use other currency symbols or names on your handheld.

To enter the euro using the onscreen keyboard:

1. Open an application (for example, Memo Pad).
2. Tap any record, or tap New.
3. Tap “123” to open the numeric keyboard.

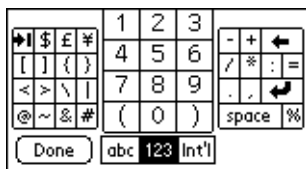


4. Tap the euro symbol.

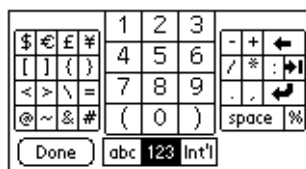


What changed?

If you're used to tapping the former configuration of the numeric keyboard, the addition of the euro requires you to slightly adjust the way you work with the keyboard. Here's what changed:



Former version

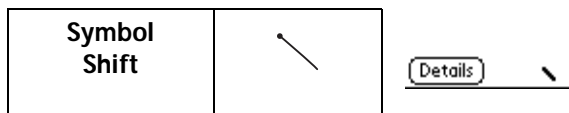


New version with euro

- Tab moved from the top row of the left panel to the second row of the right panel.
- Dollar moved one cell to the left to make room for the euro.
- Vertical bar was eliminated from the third row of the left panel and no longer appears on the numeric keyboard. (The vertical bar is still available in Graffiti writing.)
- Equal sign moved from the second row of the right panel to the third row of the left panel, where the vertical bar used to be.

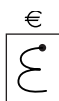
To enter the euro using Graffiti writing:

1. Activate the Symbol Shift by making the following stroke:



The slanted shift symbol appears in the lower-right corner of the screen.

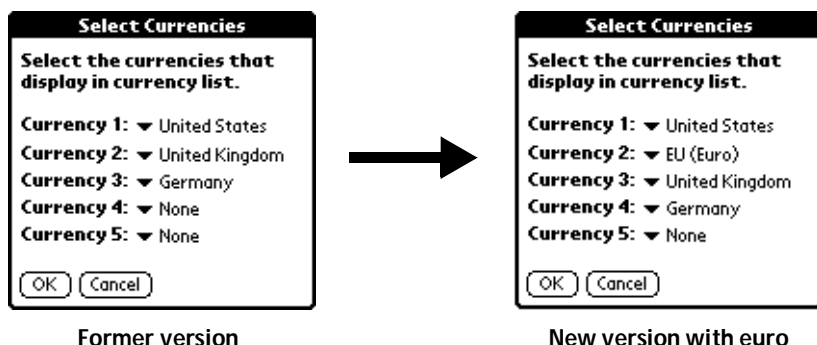
2. Write the Graffiti stroke for “e.”



Using the euro in Expense

The euro is now one of the currencies that is available by default in the Expense application on your handheld, in addition to the dollar (United States), pound sterling (United Kingdom), and deutsche mark (Germany).


If you have not used Expense before, the 3.3 Upgrade adds the euro as the second currency on the default list.

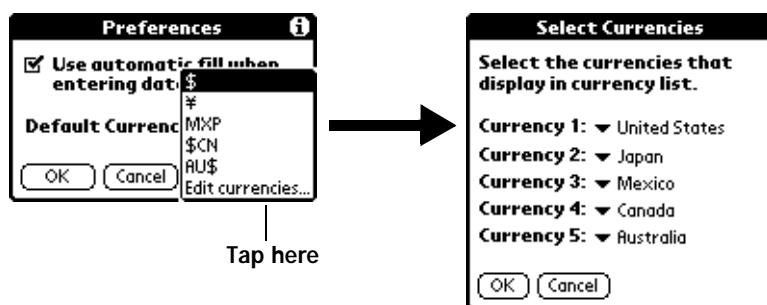


If you use Expense and your list of currencies has an available slot, the 3.3 Upgrade automatically adds the euro to your list.

If your list of currencies is full and you want to use the euro in Expense items, you must replace a currency with the euro.

To add the euro to your list of available currencies:

1. Open Expense.
2. Tap the Menu icon .
3. Tap Options, and then tap Preferences.
4. Tap the Default Currency pick list, and then tap Edit Currencies.




5. Tap one of the five pick lists, and then select EU (Euro).

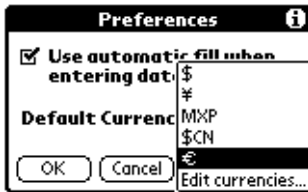


6. Tap OK.

After you add the euro to your list of available currencies, you can make the euro your default currency, which is the currency that automatically appears as part of every new Expense item you create.

To make the euro your default currency:

1. Open Expense.
2. Tap the Menu icon .
3. Tap Options, and then tap Preferences.
4. Tap the Default Currency pick list.
5. Tap the euro.



6. Tap OK.

Displaying the euro in your Desktop application

When you perform a HotSync® operation, the euro symbol is transferred to your Desktop application like any other piece of data on your handheld. The symbol shows up in your Desktop application, however, only if you are using the fonts that support the symbol.

These fonts do not reside with your Desktop application, and they are not produced by Palm Computing; rather, they are part of the operating system of your desktop computer.

Mac OS

Apple fonts that support the euro are contained in Mac OS 8.5 or higher. For more information, visit the following web site:

<http://til.info.apple.com/techinfo.nsf/artnum/n22222>

Microsoft Windows

If you are using Windows 95 or Windows NT 4.0, you can download free font upgrades that support the euro symbol from the Web. For more information, visit the following web site:

<http://www.microsoft.com/windows/euro.asp>

Microsoft Windows 98 supports the euro and has all the necessary fonts and built-in drivers to use the symbol.

Printing the euro

Even with operating system support, problems may arise while printing documents that contain the euro if built-in printer fonts do not support the symbol. When a font is present on both the printer and the computer, the font in the printer is used by default to increase printing speed. If the printer font is not updated to include the euro, a box is printed instead of the euro symbol.

You can work around this problem by sending a bitmapped image of the euro to the printer or by not using the printer's built-in fonts (if allowed).

Changes to HotSync® Technology

Many of the enhancements included in the 3.3 Upgrade improve HotSync® technology.

New HotSync application interface

Before the 3.3 Upgrade, the HotSync application on your handheld looked like this:

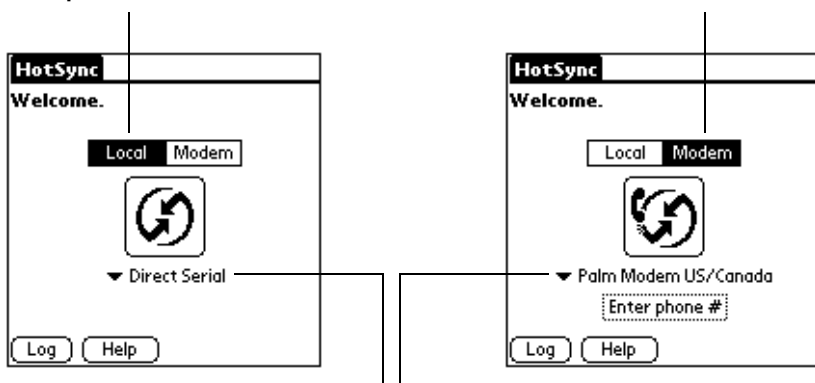


HotSync application interface, former version

If you always synchronize your data using the cradle, it's likely that the only time you saw this former version was at the end of HotSync operation. For you, the 3.3 Upgrade changes nothing.

The new version looks like this:

Tap Local or Modem to switch between the two kinds of connections



Tap the pick list to further define the connection

HotSync application interface, new version

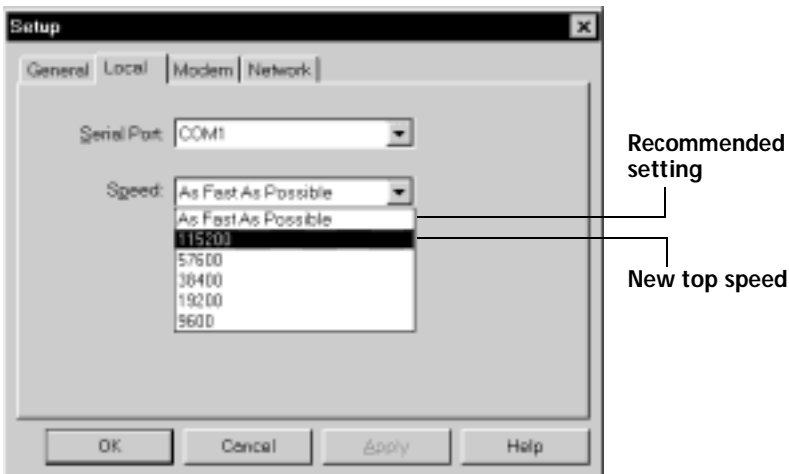
Increased top speed of HotSync operations

Another enhancement to HotSync technology is an increase in the top speed at which a cradle HotSync operation can occur, when you are performing a cradle HotSync operation with the desktop computer to which the cradle is directly connected. Faster speed is especially helpful if you have large amounts of data to synchronize, for example, a corporate phone book that you are constantly updating.

What changed?

In the former version of HotSync technology, the fastest speed at which a cradle HotSync operation could take place was 57,600bps (bits per second). Now the fastest possible speed is 115,200bps.

If you're like most users, however, you simply set your HotSync Manager (part of your Desktop application) to perform local HotSync operations As Fast As Possible — that's the default setting, the one recommended in the documentation of your handheld. If this is the setting you use, cradle HotSync operations now take advantage of the new fastest speed whenever possible. You don't need to do anything.

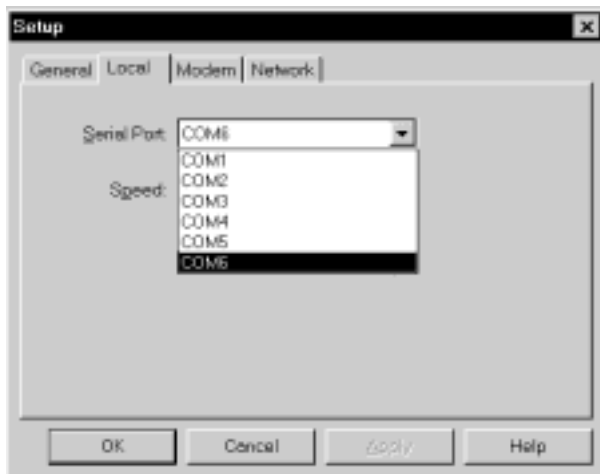


All COM ports available

Former versions of the HotSync Manager listed, at most, the ports COM1 through COM4, regardless of how many ports were actually configured on your computer or which ports were actually available.

What changed?

The 3.3 Upgrade now enables you to see all COM ports that are available on your desktop computer. It is convenient to be able to access all ports from the HotSync Manager.



Improved results of a hard reset

On rare occasions, your handheld may not respond when you press buttons or tap the screen. Usually, a simple soft reset returns your handheld to full working order, with all your data intact.

It may happen, however, that a soft reset is not enough to wake up your handheld, and you have to perform a hard reset. Because a hard reset erases all data on your handheld, you must perform a HotSync operation in order to transfer the data in your Desktop application to your handheld.

In the past, the HotSync operation you performed after a hard reset may have given you unexpected results. For example, an application that you had added to your handheld disappeared, and you had to re-install it. Or an application that you had deleted may have reappeared.

What changed?

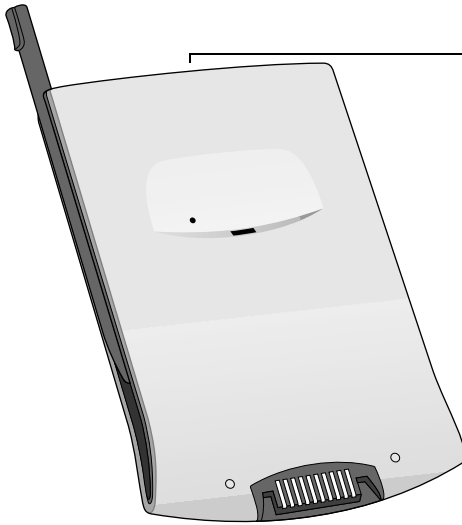
The 3.3 Upgrade changed the behavior of the HotSync Manager so that in the future, after the HotSync operation that follows a hard reset, your handheld contains what it contained before the hard reset.

For example, applications you deleted are not re-installed on your handheld, and applications you added are not removed. Of course, only as much of your data as is in your Desktop application can be restored to your handheld.

Note: If you perform HotSync operations with more than one computer (for example, one at work and another at home), be sure to install the Desktop update portion of the 3.3 Upgrade on all your computers. Otherwise, a hard reset may not give you the results described here.

IR HotSync® Operations

Your handheld is equipped with an infrared (IR) port, and you're probably already familiar with "beaming" — that is, using infrared technology to transfer your business card, data, or applications to another Palm Computing® platform handheld that's also equipped with an IR port.



The IR port on Palm Computing platform handhelds is located behind a window at the top, center, of the device (the Palm V™ organizer is shown here)

What changed?

The power of the IR port is now extended because with the 3.3 Upgrade, your handheld supports the IrCOMM implementation of the standards for infrared communication established by the Infrared Data Association (IrDA). This means that not only can you beam data to another Palm Computing platform handheld, but you can also beam data to a cell phone and any other device that supports the IrCOMM implementation of the IrDA standards.

Most importantly, you can now use the IR port to perform HotSync® operations; you don't need your cradle. This is especially useful if you travel with an infrared-enabled laptop; you no longer need to carry your cradle or cable to synchronize with the laptop. You simply enable infrared communication on your laptop and handheld and follow the instructions given in "Performing an IR HotSync operation" later in this section.

Preparing your computer for infrared communication

Before you can perform a HotSync operation using the IR port, the computer with which you want to synchronize must fulfill these requirements:

- Your computer must support the IrCOMM implementation of the IrDA standards.
- Your computer must have an enabled infrared port that's built into the computer, or an enabled infrared device attached to the computer.

Desktop computers are likely to require an infrared device attached to a physical COM port. Laptops are likely to have a built-in IR port, so no external device is necessary. Your computer must also have an installed infrared driver.

Check your computer's documentation to learn if the computer supports infrared communication. If your computer is a Macintosh G3, or uses Microsoft Windows 98, infrared communication is built into the operating system. Some versions of the Macintosh iMac also have built-in infrared communication.

The following procedure explains how to find out if your Windows 95 computer has an infrared driver installed.

To check if your Windows 95 computer supports infrared communication:


1. In the Windows taskbar, click Start.
2. Choose Settings, and then choose Control Panel.
3. In the Control Panel, look for the Infrared icon.

If the icon is there, your computer is enabled for infrared communication. If the icon does not appear, you need to install an infrared driver.

Note: If you have an external infrared device attached to your computer, a driver is probably included with the device. Consult the documentation included with the device for information on installing the required driver.

To install a Windows 95 infrared driver:

This procedure assumes that you already installed the 3.3 Upgrade.

1. Click the HotSync Manager icon ™ in the Windows system tray and choose Setup. Click the tabs and make a note of the COM ports being used by the HotSync Manager. You need this information later.

2. Go to this web site:

<http://www.microsoft.com/windows/downloads>

3. Follow the links to the Windows 95 IrDA 2.0 (Infrared Driver), and follow the instructions to download the driver.
4. Close your Internet browser if it's in the way.
5. Find the file W95ir.exe on your computer.

Before you go to the next step, be sure this file is in a folder where you want to store the infrared driver.

6. Double-click W95ir.exe.

A window appears and displays the files that are being unzipped onto your hard disk. After the files are unzipped, the title bar displays Finished. Close this window.

7. In the same folder where you unzipped W95ir.exe, find the file Setup.exe. Double-click it to begin installation.

The Add Infrared Device Wizard appears.

8. Click Next.

9. Accept the defaults provided by the Wizard except when the Wizard asks you to select the port that your infrared device is physically connected to. Be sure that an available communications port is selected. Do not select the port that the HotSync Manager currently uses.

10. Continue the rest of the installation using the defaults provided.

If an alert appears telling you that there is a communication port conflict, click OK and proceed.

After you install the infrared driver, you need to check the ports used by your computer for infrared communication.

To check the ports used for infrared communication:

1. In the Windows taskbar, click Start.
2. Choose Settings, and then choose Control Panel.
3. Double-click Infrared.
4. Click the Options tab.
5. Select Enable infrared communication.



The COM port displayed in the drop-down box is the same port to which your infrared device is attached. It should be *different* from any port that is used by the HotSync Manager.


6. Make a note of which port is listed as “providing application support.” You need this information to configure the HotSync Manager for infrared communication.

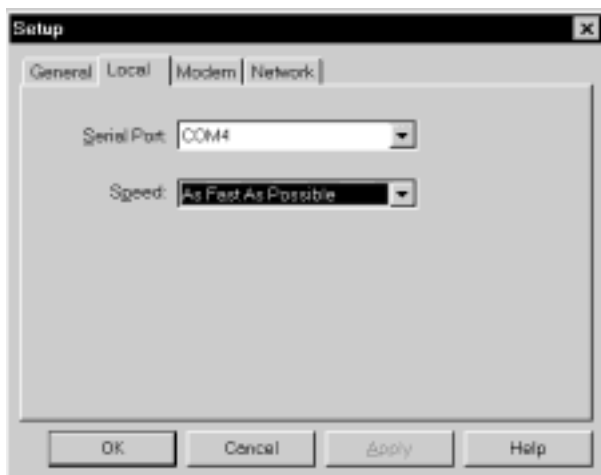
This port (COM4 in this example) is the simulated port, the channel through which the actual infrared communication takes place between your computer and your handheld.

7. Deselect any other check boxes in the Options tab.
8. Click Apply and OK.

Configuring HotSync Manager for infrared communication

Next, you need to go to the HotSync Manager and specify the simulated port used for infrared communication.

1. Click the HotSync Manager icon  in the Windows system tray.
2. Make sure Local is checked on the menu.
3. Choose Setup.
4. Click the Local tab.
5. In the Serial Port drop-down box, select the COM port that was given as the simulated port in the Options tab of the Infrared Monitor (in this example, COM4).



6. Click OK.

The HotSync Manager is now communicating with the simulated port defined for infrared communication. This means that you cannot use your cradle again until you reconfigure the HotSync Manager to communicate with the port defined for cradle synchronization.

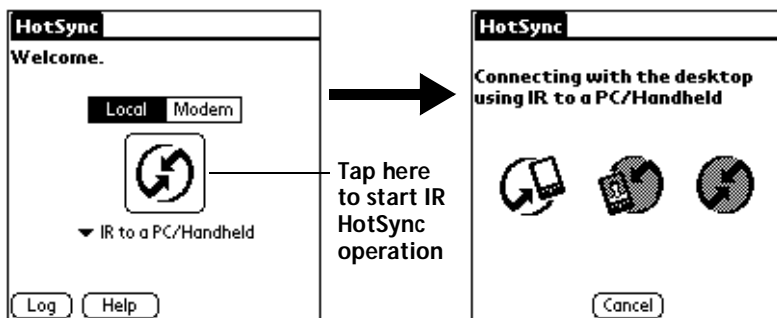
Performing an IR HotSync operation

After you complete the steps to prepare for performing an IR HotSync operation, it is easy to perform the actual operation.

To perform an IR HotSync operation:

1. In the Applications Launcher, tap the HotSync icon.


2. Tap Local.
3. Tap the pick list below the HotSync icon and select IR to a PC/Handheld.
4. Position the IR port of your handheld within a couple of inches of the infrared port of your computer.
5. Tap the HotSync icon to start the IR HotSync operation.



Returning to cradle HotSync operations

It's easy to return to using the cradle for HotSync operations.

To return to cradle HotSync operations:

1. If necessary, connect the cradle to a serial (COM) port of your computer.
2. Click the HotSync Manager icon  in the Windows system tray.
3. Choose Setup, and then click Local.
4. Select the COM port your cradle is connected to.
5. Click OK.

Now, the next time you want to perform a HotSync operation, just press the HotSync button on the cradle, as you always did in the past.

You can leave the HotSync application on your handheld set to perform IR HotSync operations and still use the cradle. This is useful if you perform HotSync operations with both your desktop computer and a laptop that you travel with. When you travel, you don't have to carry a cradle or cable because your handheld is set to perform IR HotSync operations. When you're in the office, just place your handheld in the cradle and press the HotSync button.

Frequently asked questions about IR HotSync operations

Problem

Solution

I can't perform an IR HotSync operation.

- Be sure the HotSync Manager is running and the Serial Port for local operations is set to the simulated port for infrared communication.
- On your handheld, be sure the HotSync application is set to Local, with the option IR to a PC/Handheld.
- Be sure the IR port of your handheld is aligned directly opposite to, and within a few inches of, the infrared device of your computer.
- IR HotSync operations do not work after you receive a low battery warning. Check the battery power of your handheld. Replace the AAA batteries or recharge the internal battery, as needed.

My handheld displays the message "Waiting for sender" when it's near my computer's infrared port.

- Your computer's infrared port may be set to search automatically for the presence of other infrared devices. Do the following to turn off this option:
 1. In the Windows taskbar, click Start.
 2. Choose Settings, and then choose Control Panel.
 3. Double-click Infrared.
 4. Click the Options tab.
 5. Deselect the option Search for and provide status for devices in range.
 6. Click Apply and OK.
- If you are using Windows 98, move your handheld away from the computer's infrared port.

My handheld
appears to freeze
when I place it near
my computer.

Move your handheld away from the
computer's infrared port.

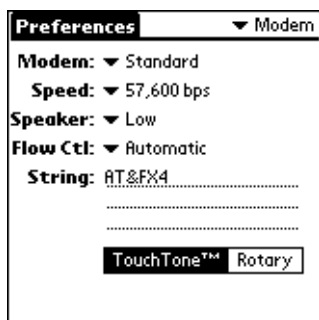
New Ways to Make Connections

The 3.3 Upgrade extends the power of the IR port with the addition of the IrCOMM implementation. This addition considerably multiplies the ways you can perform HotSync® operations. It also increases the ways that you can use your handheld's TCP/IP software to make other kinds of connections between a network application on your handheld and an intranet, a LAN, or the Internet.

For example, suppose your cell phone has a modem attachment, and this modem is equipped with an IR port. You can now use infrared communication to send data from your handheld to the IR port of the modem. Then the cell-phone modem can dial a modem attached to your desktop computer; through this connection, you can synchronize with your Desktop application. The entire sequence can be set up from your handheld using the new Connection Preferences screen and the HotSync application.

What changed?

To accommodate these new possibilities, the 3.3 Upgrade eliminated the former Modem Preferences screen from the Preferences (Prefs) application and replaced it with a new Connection Preferences screen.



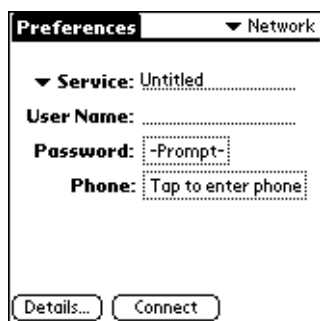
Eliminated:
Modem Preferences screen



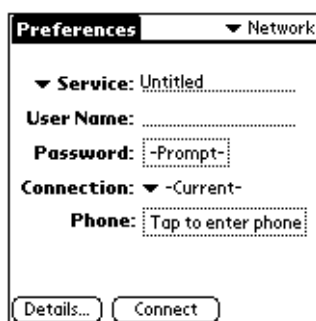
New:
Connection Preferences screen

This Connection Preferences screen appears wherever the Modem Preferences screen used to appear; so in the HotSync application, the former Modem Setup item on the Options menu has been replaced by Connection Setup. Tapping Connection Setup displays the Connection Preferences screen.

The Network Preferences screen also changed slightly so that you can access the configurations you create using Connection Preferences:



Former version



New version, with
Connection option

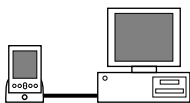
List of default configurations

The Connection Preferences screen displays a list of available configurations; the list varies depending on the kind of handheld you use and the software you added to it. Your handheld supports these connections by default. They are ready to be further defined for use.

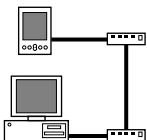
For example, if you use a Palm III™ organizer, the connection for the PalmModem® accessory appears on the list. Assuming you have the modem hardware itself, you need only add the specifics of the connection (phone setup and if needed, network connection) to complete the configuration. The 3.3 Upgrade did not change the options that allow you to specify these details. For help with these options, refer to the online tips in the dialog boxes or the documentation that came with your handheld. In the documentation, see the sections on modem and network HotSync operations, on the Network Preferences screen, and on the old Modem Preferences screen. Note that if you had a customized modem setup on your handheld before you added the 3.3 Upgrade, you have to re-enter the init string for the modem.

Creating new configurations

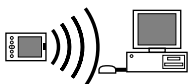
You can also define new configurations. Use the Connection Preferences screen to create a new configuration. There are four possible kinds of connections.



Serial to PC: A local HotSync connection: the direct serial connection between your handheld and your desktop computer. Your handheld is connected by its serial port to the cradle, and the cradle is attached by its cable to a serial (COM) port of your desktop computer.



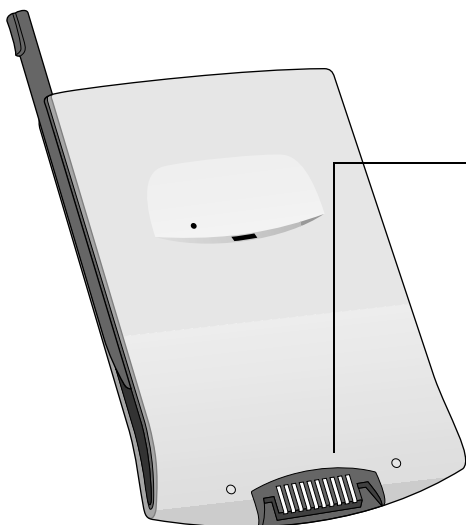
Serial to Modem: A connection between a modem attached to the serial port of your handheld and a modem that is part of your computer or laptop.



IrCOMM to PC: A connection between the IR port of your handheld and the infrared device of your computer or laptop.



IrCOMM to Modem: A connection between the IR port of your handheld and a modem. The modem can be attached to a computer or some other device containing an IR port.




The serial port on Palm Computing platform handhelds is located on the bottom, center, of the device (the Palm V™ organizer is shown here)

Example 1: A connection for remote IR HotSync operations

You can define a configuration for the example mentioned above: performing an IR HotSync operation to send data through the IR port of a modem attached to a cell phone, which then dials a modem attached to your desktop computer, to synchronize with your Desktop application. For this example, you use the IrCOMM to Modem connection.

To create an IrCOMM to Modem connection:

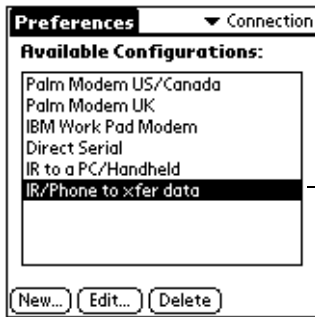
1. In the Applications Launcher, tap the Preferences (Prefs) icon .
2. Tap the category pick list in the upper-right corner of the screen.
3. Tap Connection.
4. Tap New.
5. Enter a name to identify this configuration.
6. Tap the Connection Method pick list and select IrCOMM to Modem.



7. Set the Dialing and Volume options.
8. Tap Details.
9. Enter the initialization string supplied by the documentation for the modem attached to your cell phone.

Note: Depending on the kind of handheld and modem you use, the Details dialog box may also contain an option in which you select the country where you are currently located.


10. Tap OK, and then tap OK again to save the configuration.



Your new configuration appears in the list of available configurations


After you create the configuration, you need to set up the HotSync Manager of your Desktop application and the HotSync application of your handheld to perform a modem HotSync operation.

To prepare the HotSync Manager for a modem HotSync operation:

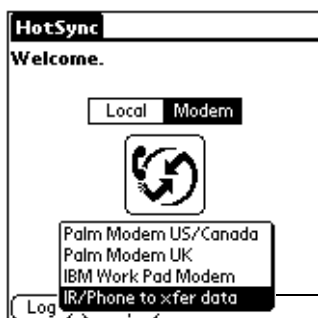
1. Click the HotSync Manager icon  in the Windows system tray.
2. Choose Setup.
3. Click the Modem tab and enter information about the modem attached to your desktop computer.
4. Click OK.
5. Click the HotSync Manager icon and choose Modem.

Now you're ready to perform a HotSync operation that uses infrared communication between your handheld, the modem on your cell phone, and the modem attached to your desktop computer.

To prepare your handheld for a modem HotSync operation:

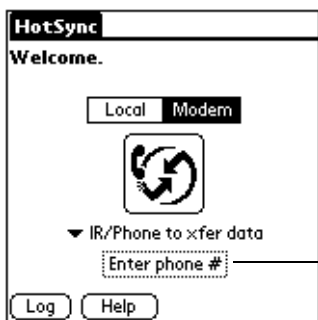
1. In the Applications Launcher, tap the HotSync icon .
2. Tap Modem.

3. Tap the pick list below the icon and select your new configuration.



The configuration you created in the Connection Preferences screen is now associated with a modem connection.

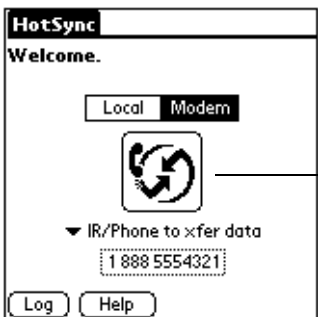
4. Tap Enter phone # to display the Phone Setup dialog box and enter information according to the instructions given in the documentation of your handheld.



Tap here to display the Phone Setup dialog box

To perform the HotSync operation:

- Tap the modem HotSync icon to begin the HotSync operation.



Tap here to begin the HotSync operation

Example 2: A TCP/IP connection

The Network Preferences screen enables you to use the TCP/IP software that is part of the operating system of your handheld. You can use the TCP/IP software to connect with Internet Service Providers (ISPs) or dial-in (remote access) servers.

TCP/IP provides the ability to connect to your ISP or dial-in server using an application on your handheld that allows you to view the transmitted data. Visit the web site <http://www.palm.com> for information on third-party applications that take advantage of TCP/IP.

To use TCP/IP, you must use one of the default connection configurations listed in Connection Preferences that involves a modem, either Serial to Modem or IrCOMM to Modem. You can also create a configuration.


For this example, let's suppose you create a Serial to Modem connection named Connect to ISP. See "Example 1: A connection for remote IR HotSync operations" for information on creating a new connection configuration. Your new configuration appears in the Connection Preferences screen:



Your new configuration appears in the list of available configurations

Now you must create a TCP/IP connection in the Network Preferences screen.

To set up the TCP/IP connection:

1. Tap the category pick list in the upper-right corner of the Preferences screen.
2. Tap Network.
3. Tap the Menu icon .
4. Tap Service, and then tap New.

5. Tap the Connection pick list and select your new configuration.

The screenshot shows the 'Preferences' screen with a 'Network' dropdown menu. The settings are as follows:

- Service:** Untitled
- User Name:** (empty field)
- Password:** -Prompt-
- Connection:** Connect to ISP
- Phone:** Tap to enter phone

At the bottom, there are two buttons: 'Details...' and 'Connect'.

The configuration you created in the Connection Preferences screen is now associated with a TCP/IP connection

Note: To use a TCP/IP connection that you created before you added the 3.3 Upgrade, be sure it is associated with the proper connection configuration.

6. Complete the Network Preferences screen according to the instructions given in the documentation for your handheld.
7. Tap Details and complete the definition of the connection according to the instructions given in the documentation for your handheld.

The screenshot shows the 'Preferences' screen with the 'Network' dropdown menu. The settings have been updated:

- Service:** My ISP
- User Name:** mynetname
- Password:** -Prompt-
- Connection:** Connect to ISP
- Phone:** 1 800 5552149

At the bottom, there are two buttons: 'Details...' and 'Connect'.

8. To make the actual connection, tap Connect in the Network Preferences screen, or follow the instructions of the third-party application you use to view transmitted data.

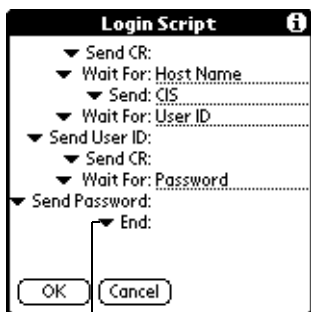
Login Script Enhancements

A login script is a series of commands that automates logging in to a network server, for example, your corporate network or your Internet Service Provider (ISP). A login script is associated with a specific service template created in Network Preferences.

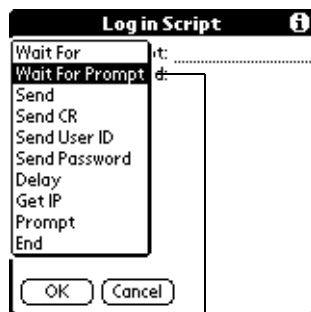
A login script is something that you are likely to receive from your IS system administrator if your company has a system in which you log in to the corporate servers from your handheld using a modem or network connection. The script is generally prepared by the system administrator and distributed to users who need it. It automates the events that must take place in order to establish a connection between your handheld and the corporate servers.

You can create login scripts in two ways:

- In a text editor on your desktop computer, in which you create a file with the extension .PNC, which you then install on your handheld using the Install Tool (this method is not available to Macintosh users)
- In the Login Script dialog box on your handheld, accessed from the Details dialog box in Network Preferences



Tap here to see the list of available commands



New command: Wait For Prompt

What changed?

The 3.3 Upgrade allows developers to extend the scripting language by means of plug-in applications. The upgrade also adds two new commands. One is available in the scripting language on your

handheld: Wait For Prompt. The other is available in the scripting language on your desktop application: set queryDNS.

One of the chief benefits of the 3.3 Upgrade enhancements to the scripting language is that login scripts can now accommodate the use of token-based authentication systems in login procedures.

Token-based authentication systems

Token-based authentication systems are security systems. They provide another security barrier to the access of network servers. Token-based authentication systems make use of small credit-card-sized devices called “token cards” or “security keys,” which users carry with them and must use to complete the authentication process when they log in to a network server.

There are currently three types of token-based authentication systems. The 3.3 Upgrade enhancements allow you to support all three.

- **Time-Synchronous:** The token card generates dynamic passwords based on an exact schedule. The schedule is aligned between the authentication server and the token hardware using built-in synchronized clocks.
- **Challenge-Response:** The authentication server prompts the user with a dynamically generated value — the challenge. The user enters this challenge value on the token card, and the token card generates a response value. The user enters this response value like a password on the handheld.
- **Event-Synchronous:** This system generates and tracks an ordered series of dynamic passwords. The server matches the passwords based on the iteration ID.

Plug-in applications

You can create plug-in applications that contain script commands that you create in order to extend the functionality of the built-in script commands. A plug-in application is a standard .PRC application that is installed on your handheld just like any other application. After you install the plug-in application on the handheld, the new script commands can be used in a login script.

Plug-in applications have the following characteristics:

- Written in C language
- Compiled into a device executable
- Called properly from a login script

- Able to return control to a login script after it terminates
- Created using a development environment that supports the Palm OS™ software, such as Metrowerks Code Warrior

For additional information on creating plug-in applications, send e-mail to Palm Developer Support at devsupp@palm.com.

New command: Wait For Prompt

The Wait For Prompt command is usually used with challenge-response token card authentication. This command detects a challenge-response prompt coming from the server and then displays the dynamically generated challenge value. You then enter the challenge value into your token card, which in turn generates a response value for you to enter on your handheld.

This command takes two arguments, both entered on the input line and separated by a vertical bar (|):

- First argument: The specific text string the handheld expects to receive
- Second argument: An optional text string that appears in the title bar of the dialog box containing the prompt string

New command: set queryDNS

The set queryDNS command is available only when you create a login script on your desktop computer. The command enables your script to turn off the Query DNS option in the Details dialog box of Network Preferences. It works in conjunction with the set primaryDNS and set secondaryDNS commands.

By default, the Query DNS option is on. This is the syntax for your login script:

```
set queryDNS "true"
```

This is the syntax to turn the option off in your script:

```
set queryDNS "false"
```

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September 3, 1998

Index

- 3.0 version, Palm OS software 2
- 3.1 version, Palm OS software 2
- 3.3 Upgrade 2

B

Beaming. *See* Infrared

C

- COM ports 11, 15, 16
- Connection Preferences screen 21, 22
- Connections
 - configurations 22 – 23
 - TCP/IP 27 – 28
- Cradle HotSync operations 18
- Currency. *See* Euro

D

- Dates, Year 2000 warranty 32
- Desktop application 2, 7, 10, 11
- Driver for infrared communication on Windows 95 15

E

- Euro
 - defined 4
 - in Desktop application 7 – 8
 - in Expense 5 – 7
 - in Graffiti writing 5
 - in onscreen keyboard 4 – 5
 - printing 8

F

- Fonts for euro in Desktop application 8

H

- Hard reset, results of 11

HotSync

- all ports visible 11
- increased speed 10
- Manager 10, 11, 12, 15, 17
- new interface 9
- operations using cradle 18, 23
- operations using IR
 - port 17 – 18, 24 – 26
- problems with IR HotSync operations 19
- restoring data after hard reset 11

I

Infrared

- connections using 23
- HotSync operations 17 – 18, 24 – 26
- installing Windows 95
 - driver 15
- and Macintosh 2
- port of your handheld 13
- ports 16, 21
- problems with IR HotSync operations 19
- requirements for computer 14
- IR. *See* Infrared
- IrCOMM 13, 21, 23
- IrDA (Infrared Data Association) 13

L

- Login scripts 29 – 31

M

- Macintosh 2, 8, 14, 29
- Microsoft Windows 95, 98, NT 8, 14
- Modem connections 22, 23
- Modem Preferences screen 21

N

- Network Preferences screen 22, 27 – 28, 31

P

Palm OS software
 3.3 Upgrade 2
 version 3.0 2
 version 3.1 2
Plug-in applications for login
 scripts 30

Ports

 IR on handheld 13
 serial on handheld 23
 simulated for infrared
 communication 16
 visible in HotSync Manager 11

S

Security keys 30
Serial port of handheld 23
set queryDNS, command for login
 scripts 31
Simulated port for infrared
 communication 16
Speed of HotSync operations 10

T

TCP/IP connection 27 – 28
Token-based authentication
 systems 30
Troubleshooting 19
2000, Year 32

U

Upgrade of Palm OS software 3.3 2
Upgrade utility 3

W

Wait For Prompt, command for
 login scripts 31
Web sites 2, 8, 15, 27

Y

Year 2000 warranty 32