

Chapter 1

PalmPilot Synchronization

Version 1.10. Special Note: Please contact Chronos with any support questions which may arise with either our software or 3COM's software — do not contact 3COM. We ask that you respectfully honor this request so we may continue to offer you a PalmPilot synchronization solution. HotSync is a registered trademark, and Palm III and PalmPilot are trademarks of Palm Computing, Inc.

The purpose of this chapter is to describe how to synchronize the information you have stored in a Consultant data file with the information you have stored in a PalmPilot or Palm III organizer. It is highly recommend that you follow the setup procedures closely (the first few sections of this chapter) and then read the remaining sections to acquaint yourself with some of the peculiarities related to synchronization.

Topics Covered

- **About PalmPilot Synchronization.** Describes what PalmPilot synchronization is and what you need.
- **Install PalmPilot Synchronization Software.** Describes how to install the necessary software for PalmPilot synchronization.
- **Setup The HotSync Manager.** Describes how to setup the HotSync Manager for proper synchronization.
- **Setup The PalmPilot.** Describes how to setup your PalmPilot for proper synchronization.
- **Setup Consultant.** Describes how to setup Consultant for proper synchronization.
- **Perform A Sync.** Describes how to synchronize your Consultant data with your PalmPilot.
- **HotSync Manager Log.** Describes how to view the log on your computer for detailed information about the success of a sync.
- **Synchronization Peculiarities.** Discusses some issues related to synchronization that arise out of differences between the way Consultant stores data and the PalmPilot stores data.
- **Convert From Pilot Desktop 1.0.** Describes how users who have been using the first generation Pilot Desktop 1.0 software can move to Consultant.
- **Technical Information.** Details some of the technical aspects of synchronization including how fields in Consultant match up with those on the PalmPilot.
- **Troubleshooting.** Tips on how to solve synchronization difficulties and a list of known incompatibilities and problems.
- **Frequently Asked Questions (FAQ).** Answers to questions frequently asked by users.

About PalmPilot Synchronization

PalmPilot synchronization allows users to keep their calendar, to-do list, address book, and memo information synchronized between Consultant and their PalmPilot or Palm III organizer. This section will describe the one-way and two-way synchronization, fast and slow synchronization, synchronizing in a multi-user environment, and will also list what you need in terms of software and hardware for synchronization.

One-way And Two-way Synchronization

Synchronization can be one-way or two-way. One-way synchronization means a) everything in Con-

sultant is copied to your PalmPilot; OR b) everything in your PalmPilot is copied to Consultant. Two-way synchronization means changes made in Consultant are reflected on your PalmPilot and vice versa. Two-way synchronization is the most common synchronization method since it keeps mirror copies of your data in both Consultant and your PalmPilot.

Let's suppose, for a two-way example, that you take your PalmPilot on a business trip and while gone you add several appointments and update information for a couple of contacts. When you return and perform a synchronization, your Consultant data will automatically be updated with the new appointments and contact changes. Likewise, if your secretary makes changes in Consultant while you're gone, those changes will automatically be made on your PalmPilot when you return and perform a synchronization.

For more information on switching between a one-way and two-way synchronization see *Setup The HotSync Manager* in Chapter *PalmPilot Synchronization* on page 5.

Fast And Slow Synchronization

The PalmPilot supports two types of synchronization known as fast and slow. Two-way synchronization can employ either method while one-way synchronization is always slow.

When a sync occurs, data on the PalmPilot is reconciled with data in Consultant. This means that the data on the PalmPilot needs to be transferred from the PalmPilot to the computer. This transfer of data occurs either over the serial port or via modem. As you probably know, neither serial ports or modems are very fast. Consequently, if you have a lot of data on your PalmPilot, it may take awhile for the data to be transferred across the serial port or via modem. Smart engineers noticed that waiting for all this data to be transferred each time a sync was performed, become monotonous. Instead, they discovered only the data that had changed on the PalmPilot since the last sync needed to be transferred to the computer. The fast sync was born.

The first time you perform a sync with Consultant, a slow sync is performed. This ensures that everything on the PalmPilot is transferred to Consultant. Thereafter, the PalmPilot automatically performs a fast sync so only the data that has been modified, added, or deleted is transferred. The fast sync saves time.

Force Slow Sync

The Conduit Manager automatically determines if it should perform a fast or slow sync so you normally needn't worry about this. You can, however, force a slow sync if you think one is necessary.

1. **Hold the shift key down on your computer for the entire duration of your next sync.** From the moment you press the HotSync button on the cradle, until the sync is done, continue holding the shift key down.

Why might you need to force a slow sync? If you are synchronizing your PalmPilot with more than one computer or if you create a new file, the PalmPilot may think it is already synchronized when it really isn't. Forcing a slow sync ensures that every record on the PalmPilot is considered during the sync process.

The occasion may also arise under strange circumstances in which records in Consultant or on your PalmPilot may think they are synchronized when they really aren't. If you believe this might be the situation, you can force a slow sync in which the sync status of records on both sides is reset.

1. **Hold the Command and Option keys down on your computer for the entire duration of your next sync.** From the moment you press the HotSync button on the cradle, until the sync is done, continue holding the Command and Option keys down.

Multi-user Environment

Consultant allows information for multiple users to be stored in the same data file. It even provides

space for a public user which can store data everyone can access. The PalmPilot, on the other hand, only stores information for a single user. The Consultant Conduit will let you synchronize data for a single Consultant user to your PalmPilot. You cannot additionally synchronize data in Consultant's public user space with your PalmPilot since the PalmPilot has no mechanism for keeping your personal data separate from public data.

Synchronization works the same whether you operate in a single or multi-user environment. When you setup synchronization in Consultant in a later section, you will be given the opportunity to specify which user in your Consultant Primary File, you want your computer to synchronize with. For more information see *Setup Consultant* in Chapter *PalmPilot Synchronization* on page 6.

Hardware And Software Requirements

PalmPilot synchronization requires certain hardware and software components. This subsection will detail those components.

Hardware

Synchronization requires that communication occur between your computer and PalmPilot. Typically, your computer and PalmPilot communicate directly via the serial port (printer or modem port) on your computer. The PalmPilot rests in a cradle device which is attached to the serial port of the computer. Communication can also occur between your computer and PalmPilot via modem if both devices are equipped with a modem.

If you plan to have your computer and PalmPilot directly connected to one another, you will need the following hardware.

- **MacOS Computer.** A serial port (printer or modem) will need to be available so the cradle can be plugged into it.
- **PalmOS Organizer.** You may use any organizer which runs the PalmOS including the PalmPilot and Palm III by 3COM.
- **Cradle.** The cradle, which holds the PalmPilot, will be plugged into the serial port on the computer.

If you plan to have your computer and PalmPilot indirectly connected to one another via a modem connection, you will need the following hardware.

- **MacOS Computer with a modem.**
- **PalmOS Organizer with a modem.** You may use any organizer which runs the PalmOS including the PalmPilot and Palm III by 3COM.

Software

You do not need any special software on your PalmPilot since its synchronization software is built-in. You will, however, need special software on your computer.

- **Consultant version 2.5 or higher.** Earlier versions of Consultant do not have support for PalmPilot synchronization.
- **3COM's second generation HotSync Manager and Conduit Manager.** The original versions of the HotSync and Conduit Managers will not work. The second generation software offers many improvements over the first generation software including speed and the ability to easily handle multiple synchronization conduits from 3rd parties.
- **Consultant Conduit.** A conduit is the software component which 3COM's second generation Conduit Manager uses to synchronize the PalmPilot's data with applications on the computer such as Consultant.

Install PalmPilot Synchronization Software

This section describes how to install all the necessary software to get PalmPilot synchronization ready for setup and eventual execution.

1. **Remove or disable any all first generation PalmPilot synchronization software.** If you currently use 3COM's first generation synchronization software, you will need to remove or disable it. The second generation HotSync and Conduit Managers do not use any of the current software components which may have come with your PalmPilot. These older components which include a control panel may interfere with the new software.

In particular, remove the "HotSync" control panel from the Control Panels folder.

2. **Download the second generation HotSync and Conduit Managers from 3Com's website (The latest version is referred to as "MacPac Version 2"). If you've already installed the MacPac Version 2 software, skip to step 4.** This software can be found at <<http://www.palm.com/cust-supply/downloads/macpacv2.html>>. If you don't find the software there, then check Chronos' website at <www.chronosnet.com> for the latest location. If you use an up to date web-browser, it should automatically decompress the software once it has downloaded. Otherwise you may need to manually decompress it to take it out of its ".sit" format. Once the ".sit" file is decompressed, you should see a file named "Palm™ MacPac v2 Installer" or something similar. You may place this file anywhere on your hard drive.

3. **Install the second generation HotSync and Conduit Managers.**

1. **Double-click the "Palm™ MacPac v2 Installer" application.** This is the installer which will install the HotSync and Conduit Managers.
2. **Choose "Custom Install" from the pop-up menu in the upper right-hand corner of the installation dialog.**
3. **Select the "HotSync software" installation option.**
4. **Click the "Install" button.** You will be prompted to name or find the folder where you want the second generation software installed. The default folder name is "Palm", which we recommend you use. Install the software into this folder and be sure to take note where you install it.

At the conclusion of the installation process, you will be prompted to enter the user name which corresponds with your PalmPilot. The name you enter will be used on your PalmPilot and by the second generation synchronization software to keep track of multiple PalmPilots which may be synchronized to the same computer. In other words, the name you enter must be unique — you can't use the same name for more than one PalmPilot. You will also be asked to select which port your PalmPilot cradle is connected to. Finally, the installer will restart your computer.

Note: any questions regarding the installation of the HotSync and Conduit Managers should be directed to Chronos and NOT 3COM.

4. **Install the Consultant Conduit.** Drag the "ConsultantConduitPPC" file, which is located in the "PalmPilot™ Synchronization" folder of the Consultant folder, into the "Conduits" folder which is located in the "Palm" folder.
5. **Turn off AppleTalk if it is running on the port the PalmPilot cradle is plugged into.** If you plan to synchronize via one of the serial ports then you will need to turn off Appletalk on the serial port you plan to plug the cradle into. You do not need to turn off AppleTalk if you are running it on a different port or on Ethernet. See your computer owner's manual for information on turning AppleTalk off.
6. **Increase the amount of memory allocated to the Conduit Manager application in the "Palm"**

folder if you have a lot of data in your PalmPilot or in Consultant. To increase the amount of memory allocated to the Conduit Manager application, select it and then choose “Get Info” from the File menu in the Finder. Lack of sufficient memory allocated to the Conduit Manager is the most common cause of problems. If you have a lot of data, try 3000-9000k.

7. **Plug the HotSync cradle into your computer's printer or serial port.** You can skip this step if you plan to synchronize via modem. We recommend you plug the cradle into your printer or modem port with your computer off.

Setup The HotSync Manager

This section describes how to setup the HotSync Manager for proper synchronization.

1. **Launch the Serial Port Monitor application.** Double-click the “Serial Port Monitor” program which is located in the “Palm” folder. This application detects when you press the HotSync button on the cradle attached to one of the serial ports. You can skip this step if you plan to synchronize via modem.
2. **Launch the HotSync Manager application.** Double-click the “HotSync Manager” application which is located in the “Palm” folder. The HotSync Software Setup dialog will appear on your screen after the splash screen.
3. **Click “Enable HotSync software at system start-up” if you want the Serial Port Monitor application to automatically be started every time your computer starts up.** You can skip this step if you plan to synchronize via modem.
4. **Make serial port settings.** Click the “Serial Port Settings” tab. Settings will appear that let you choose which port the HotSync cradle is plugged into. If you plan to synchronize via modem, there are also settings for that option.
5. **Choose “Conduit Settings” from the HotSync menu.** The Conduit Settings dialog will appear and list all the conduits currently installed in the “Conduits” Folder.
6. **Select the Consultant Conduit from the list of installed conduits.**
7. **Click the “Conduit Settings” button at the top of the Conduit Settings dialog.** A Settings dialog will appear from which you can choose from one-way and two-way synchronization options.
8. **Select a one-way or two-way synchronization option.** Two-way synchronization is the most common form of synchronization. For more information on one-way versus two-way synchronization see *One-way And Two-way Synchronization* in Chapter *PalmPilot Synchronization* on page 1.
9. **Exit the Settings and Conduit Settings dialogs.**
10. **Quit the HotSync Manager application.**

Setup The PalmPilot

This section describes how to setup your PalmPilot for proper synchronization whether you plan to synchronize directly via a serial port, or indirectly via modem.

Direct Synchronize Via Serial Port

If you plan to synchronize directly via serial port, then you do not need to perform any special setup on your PalmPilot.

Indirect Synchronize Via Modem

If you plan to synchronize indirectly via modem, then you need to perform several setup steps so your PalmPilot can correctly dial your computer and establish a modem connection.

1. **Turn on your PalmPilot.**
2. **Tap the Applications button.**
3. **Tap the HotSync application.**
4. **Tap the Phone button.** The Phone Setup dialog will appear.
5. **Enter the phone number where your computer is.**
6. **Make any additional dialing prefix, call waiting, and calling card settings as appropriate.**
7. **Tap the OK button.** You will return to the HotSync screen.
8. **Tap the Modem Setup button.** The Modem Setup dialog will appear.
9. **Tap Tone or Rotary depending on your phone system.**
10. **Select the appropriate modem, speed, speaker, flow control, and initialization string.** You may have to refer to your modem manual for specific settings.
11. **Tap the Done button.** The Modem Setup dialog will close.

Setup Consultant

This section describes how to setup Consultant for proper synchronization.

1. **Launch Consultant 2.5x.** Double-click the Consultant 2.5x application icon to launch it.
2. **Specify a Primary File.** If you don't already have a Primary file specified, click the Primary File button in the standard open dialog when you open your file. You cannot synchronize unless you have chosen a Primary File.
3. **Select “Palm Sync Setup” from the File menu.** A dialog will appear and request a registration number from you (This registration number is different than the one you used for Consultant). If you don't have a registration number, you may purchase one from Chronos. If you wish to take advantage of the 30 day trial period, click the Not Yet button. Once you successfully activate this feature, the Palm Sync Setup dialog will appear.
4. **Select the “Enable Palm Synchronization” button.** Enabling Palm Synchronization has several effects on the functionality of Consultant. One effect is that Consultant will not purge deleted records from a Consultant data file until a synchronization has been performed. This means your file will not decrease in size after you delete records until a synchronization is performed.
5. **Click the “Choose User” button to select the user in the currently open file, whose information you want to synchronize with your PalmPilot.**
6. **Select all of the PalmPilot databases you want to synchronize.** You may synchronize the Date Book, Address Book, To Do List, and Memo databases.
7. **Click the OK button to exit the Palm Sync Setup dialog.**
8. **Consider category synchronization.** There are several differences between the way Consultant handles categories and the way the PalmPilot does. For more information on this issue see *Category Synchronization* in Chapter *PalmPilot Synchronization* on page 9.
9. **Match Consultant's phone labels with your PalmPilot's.** For information on how to do this see

Phone And Custom Label Synchronization in Chapter *PalmPilot Synchronization* on page 9.

10. Quit Consultant.

Perform A Sync

Once you have completed the installation and setup steps, you are ready to synchronize. Follow the steps below to synchronize.

Direct Sync Via Serial Port

1. **Place your PalmPilot or Palm III in its cradle.**
2. **Press the HotSync button on the cradle. You will want to force a slow sync if you have previously synced your PalmPilot. This will ensure that all your data gets synchronized including the data your PalmPilot may think is already synchronized. For more information on performing a slow sync see *Fast And Slow Synchronization* in Chapter *PalmPilot Synchronization* on page 2.** Consultant does not need to be open when you perform a sync. A small HotSync Progress dialog with three circular icons should appear and your data will be synchronized. If you experience a problem, check the HotSync log. For more information on this log see *HotSync Manager Log* in Chapter *PalmPilot Synchronization* on page 7.

Indirect Sync Via Modem

1. **Turn on your computer and make sure its modem is connected and on.** You must also make sure that no other communication software is running that may have control of the modem.
2. **Connect the special modem cable to the PalmPilot's serial port and to the modem.**
3. **Turn on the PalmPilot.**
4. **Tap the Applications button.**
5. **Tap the HotSync application.**
6. **Tap the Modem Sync button.** The PalmPilot's modem will dial your computer's number and begin to synchronize. A small HotSync Progress dialog with three circular icons will appear on both the PalmPilot and Consultant. If you experience a problem, check the HotSync log. For more information on this log see *HotSync Manager Log* in Chapter *PalmPilot Synchronization* on page 7.

HotSync Manager Log

Detailed information about the success of a sync is stored in the HotSync Manager's log. You typically will not receive an error message on your computer screen during a sync, so you will need to refer to this log in order to find out if an error or problem occurred. You should include a copy of the log, which you should copy/paste into any e-mail support correspondence to Chronos.

This section will describe how to access the log and will detail common log error messages.

Open The Log

1. **Launch the HotSync Manager application.** Double-click the "HotSync Manager" application which is located in the "Palm" folder. The HotSync Software Setup dialog will appear on your screen after the splash screen.
2. **Choose "Log..." from the HotSync menu.** The Log dialog will appear and display the contents

of the log.

Log Error Messages

- **Palm Sync Setup has not been done in Consultant.** You need to launch Consultant and follow the steps in the “Palm Sync Setup” dialog accessible from the File menu.
- **Error reading specified Consultant data file.** Lack of sufficient memory in the Conduit Manager application is the most common reason for this error message.
- **Error opening specified Consultant data file.** Your Consultant data file (the file with your calendar, contacts, memos, etc.) cannot be opened which usually only happens if it has been deleted.
- **Error reading PalmPilot database info.** Lack of sufficient memory in the Conduit Manager application is the most common reason for this error message.
- **Error opening PalmPilot database.** Lack of sufficient memory in the Conduit Manager application is the most common reason for this error message. You will also receive this error message if one of the PalmPilot databases does not yet exist. This is a very common situation immediately after a hard reset has been done on the PalmPilot. Since a hard reset erases all data, the PalmPilot database for each application gets deleted. The first time a new record is added to a PalmPilot application for which a database doesn't yet exist, the database is created. This means if you get the above error message, simply add a new record to the PalmPilot application whose database is giving you the error message and the problem will go away on your next sync. Suppose, for example, you get this error message when synchronizing the Date Book application on the PalmPilot. Simply, create a new appointment in the Date Book application which in turn will make sure the Date Book database is created. You can, of course, immediately delete the appointment.
- **Error reading all PalmPilot records.** Lack of sufficient memory in the Conduit Manager application is the most common reason for this error message.
- **Error reading modified PalmPilot records.** Lack of sufficient memory in the Conduit Manager application is the most common reason for this error message.
- **Error reading PalmPilot record by ID.** Lack of sufficient memory in the Conduit Manager application is the most common reason for this error message.
- **Sync action error.** This error occurs when the conduit attempts to synchronize either a PalmPilot or Consultant record and the state of the corresponding record on the other device does not make sense. Suppose, for example, you have a PalmPilot record which was recently added and it maps to a Consultant record that is already synchronized. This situation is impossible since a newly created record can't already be synchronized. This type of situation usually occurs when 1) a user synchronizes different copies of the same Consultant data file; or 2) a user hard resets their PalmPilot and then performs a synchronization to a Consultant data file that was previously synchronized. In other words, it happens when the synchronization process gets confused by user actions. The best solution to this error message is to synchronize while holding the Option and Command keys down. Holding these keys down forces a slow-sync and resets the sync status of records.
- **Conduit Manager Does Not Have Enough Memory.** Increase the amount of memory allocated to the Conduit Manager application.
- **Conduit Initialization And Registration Failed.** Improper installation of the 3COM Conduit and HotSync Manager software is the most common reason for this message.

Synchronization Peculiarities

Consultant stores and works with calendar, to-do list, address book and memo data slightly different than does the PalmPilot. These differences become apparent when one synchronizes data between the two. This section will discuss some of these peculiarities and how they affect the synchronization process.

Category Synchronization

The Date Book, Address Book, To Do List, and Memo applications on the PalmPilot each have their own list of 16 categories. Consultant, on the other hand, has one master list of unlimited categories which is shared by the time management, contact management, and memo components of Consultant. The first step of the synchronization process synchronizes the categories for a given PalmPilot application with those in Consultant. The Consultant conduit employs the following algorithm to synchronize the categories.

1. **The conduit makes sure that Consultant has a corresponding category for each category found in the PalmPilot application.** This is not a problem since an unlimited number of categories can be added to Consultant.
2. **The conduit ATTEMPTS to make sure that the PalmPilot application has a corresponding category for each applicable category in Consultant (If you're synchronizing memos, only Consultant categories used by Memos are considered).** This is not always possible since each PalmPilot application has a limit of 16 categories, but a best attempt is made.
3. **The conduit creates a one-to-one mapping between each PalmPilot category and each applicable Consultant category.** If the 16 category limit on the PalmPilot has been exceeded, all Consultant categories which do not have a one-to-one mapping are automatically assigned to the PalmPilot's "unfiled" category.

For you the user, this means that for perfect synchronization you should attempt to keep the total number of distinct category names on your PalmPilot to 16 or less for each application. Otherwise some Consultant categories will synchronize as "unfiled."

Delete Categories

If you delete a category in Consultant, you will need to delete it on your PalmPilot before you synchronize. Otherwise the above category synchronization algorithm will add it back to Consultant the next time you sync. Likewise, if you delete a category on your PalmPilot, you will need to delete it in Consultant before you synchronize. You will, of course, in both cases need to consider which PalmPilot applications use the category before deleting it on either your PalmPilot or in Consultant.

Phone And Custom Label Synchronization

The PalmPilot has 5 phone fields and 4 custom fields. You may assign one of the eight phone labels (Work, Home, Fax, Other, E-mail, Main, Pager, Mobile) to each of the 5 phone fields. Please notice that the "E-mail" phone label is included in the PalmPilot's phone labels. The PalmPilot lets you change the labels assigned to the custom fields but they are fixed in nature.

Consultant has 8 phone fields and 8 custom fields. Consultant lets you assign one of sixteen phone labels to each of the 8 phone fields. Consultant lets you assign one of thirty-two custom field labels to each of the 8 custom fields. Furthermore, Consultant let's you decide what your phone and custom labels are.

These differences between the PalmPilot's phone/custom fields and Consultant's causes several synchronization challenges. These challenges are easily overcome, by the following rules.

1. **The conduit only synchronizes the first five phone fields in Consultant.**
2. **The conduit only synchronizes the first four custom fields in Consultant.**
3. **The conduit does not synchronize the PalmPilot's eight phone labels and Consultant's sixteen phone labels.** This means you need to make sure Consultant has a Work, Home, Fax, Other, E-mail, Main, Pager, and Mobile phone label. See the Consultant Reference Manual for information on adding phone labels. Note: The conduit does not synchronize phone labels because it cannot do so without the risk of removing labels from Consultant that may be in use.

4. **The conduit does not synchronize custom labels.**

These rules basically mean that you should try and setup and use the Contact Card View in Consultant so it looks and acts like the PalmPilot. More specifically, this means to use the same phone fields labels in the first 5 phone fields in Consultant. It also means you should rename the first 4 custom fields in Consultant to match the labels you use on the PalmPilot. Please remember that the PalmPilot uses a phone field for e-mail addresses, so you may want to do the same in Consultant.

To-Do List Due Date Synchronization

To-Dos are handled differently in Consultant than on the PalmPilot. Consultant lets you assign to-dos to specific dates. The PalmPilot does not. Rather, to-dos on the PalmPilot all appear on a master list and from which they can be assigned a due date. Consultant does not have due dates.

The conduit circumvents these to-do paradigm differences by using the following rules.

1. **The conduit places all PalmPilot to-dos in Consultant on the current day.** Since PalmPilot to-dos do not occur on a specific day, the default is to put them on today's date in Consultant at synchronization time.
2. **The conduit adds the due date to the to-do's title in Consultant if the PalmPilot to-do has a due date.** Suppose you have a to-do on your PalmPilot called "Write proposal" with a due date of December, 15, 1998. When this to-do is synchronized and moved to Consultant, the title becomes "Write proposal (Due 12/15/98)".
3. **The conduit extracts the due date from the title of a Consultant to-do and assigns it to the PalmPilot to-do.** Suppose you have a to-do in Consultant called "Get report data (Due 1/1/99)". When this to-do is synchronized and moved to the PalmPilot it will become "Get report data", and will be assigned a due date of January 1, 1999.

Convert From Pilot Desktop 1.0

This section describes how users who have been using the first generation Pilot Desktop 1.0 software can move to Consultant.

1. **Install PalmPilot synchronization software.** For more information see *Install PalmPilot Synchronization Software* in Chapter *PalmPilot Synchronization* on page 4.
2. **Setup the HotSync Manager.** For more information see *Setup The HotSync Manager* in Chapter *PalmPilot Synchronization* on page 5.
3. **Setup the PalmPilot.** For more information see *Setup The PalmPilot* in Chapter *PalmPilot Synchronization* on page 5.
4. **Setup Consultant.** For more information see *Setup Consultant* in Chapter *PalmPilot Synchronization* on page 6. Rather than opening an existing data file in Consultant, you will want to create a new file and make it your primary file. You will also want to make sure you follow the instructions carefully regarding categories and phone labels.
5. **Perform a sync.** For more information see *Perform A Sync* in Chapter *PalmPilot Synchronization* on page 7.

Technical Information

This section details some of the more technical aspects of synchronization. You needn't read this section unless you are looking for specific information regarding some of the behind the scenes details.

As you're probably well aware, synchronization between PalmPilot and 3rd party organizers like Consultant has its challenges because of the different ways data is stored. Consultant, for example, has eight phone fields, while the PalmPilot has only five. This section will detail how the Consultant conduit maps PalmPilot fields to Consultant and vice versa.

TABLE 1. To-Do List Field Mappings (PalmPilot To Consultant)

PalmPilot	Consultant
Description	Title
Priority	Priority
Category	Category
Due Date	(a) Title (Due date gets appended to title as "(Due 10/31/98)") (b) Start and End Dates get set to current date.
Status (completed, not completed)	Status (completed, not-completed, etc.)
Notes	Notes

TABLE 2. To-Do List Field Mappings (Consultant to PalmPilot)

Consultant	PalmPilot
Title	Description
Priority	Priority
Category	Category
Due Date in Title such as "(Due 10/31/98)"	Due Date
Start and End Dates	No Equivalent
Status (completed, not-completed, etc.)	Status (completed, not completed)
Notes	Notes

TABLE 3. Memo Pad Mappings (PalmPilot To Consultant)

PalmPilot	Consultant
Memo	(a) Memo Title. First line of memo becomes Memo Title. (b) Memo
Category	Category

TABLE 4. Memo Pad Mappings (Consultant To PalmPilot)

Consultant	PalmPilot
(a) Memo Title and (b) Memo combined	Memo
Category	Category

TABLE 5. Date Book Mappings (PalmPilot To Consultant)

PalmPilot	Consultant
Description	Title
Priority	Priority
Category	Category
Start and End Times	Start and End Times
Date	(a) Start Date and (b) End Date (if not a repeat)
Repeat End Date	End Date
Alarm	Alarm
Date Exceptions	Date Exceptions
Repeat Info	Repeat Info
Notes	Notes

TABLE 6. Date Book Mappings (Consultant To PalmPilot)

Consultant	PalmPilot
Title	Description
Priority	Priority
Category	Category
Start and End Times	Start and End Times
Start Date	Date
End Date	Repeat End Date (if repeat)
Alarm	Alarm
Date Exceptions	Date Exceptions
Repeat Info	Repeat Info
Notes	Notes

TABLE 7. Address Book Mappings (PalmPilot To Consultant)

PalmPilot	Consultant
Category	Category
Name, First Name, Company, Title	Last Name, First Name, Company, Position Title
Phone 1, 2, 3, 4, 5	Phone 1, 2, 3, 4, 5 ^a

TABLE 7. Address Book Mappings (PalmPilot To Consultant)

PalmPilot	Consultant
Address, City, State, Zip Code, Country	Address 1 Line 1, City 1, State 1, Zip Code 1, Country 1
Custom 1, 2, 3, 4	Custom 1, 2, 3, 4
Notes	Notes

a. Phone labels are synchronized

TABLE 8. Address Book Mappings (Consultant To PalmPilot)

Consultant	PalmPilot
Category	Category
Last Name, First Name, Company, Position Title	Name, First Name, Company, Title
Phone 1, 2, 3, 4, 5	Phone 1, 2, 3, 4, 5 ^a
Phone 6, 7, 8	No equivalent
Address 1 Line 1, City 1, State 1, Zip Code 1, Country 1	Address, City, State, Zip Code, Country
Address 1 Line 2	No equivalent
Address 2 Line 1 & 2, City 2, State 2, Zip Code 2, Country 2	No equivalent
Custom 1, 2, 3, 4	Custom 1, 2, 3, 4
Custom 5, 6, 7, 8	No Equivalent
Notes	Notes

a. Phone labels are synchronized

Troubleshooting

This section offers tips on how to solve any problems or difficulties you may be having with synchronization. It also lists any known incompatibilities or problems. You should consult this section and read “Frequently Asked Questions (FAQ)” on page 14 before contacting Chronos for technical support.

Should you need to contact Chronos for support, always copy/paste the HotSync Manager's Log in any e-mail correspondence.

Troubleshooting Tips

The basic idea behind troubleshooting a problem is to narrow down possible sources for the problem. Listed below are basic questions you can use to figure out what the problem might be. You should include the information obtained in these steps with any support e-mail to Chronos.

1. **When you pressed the HotSync Button on the PalmPilot cradle, did you see a HotSync**

Progress dialog with three circular icons on both your computer screen and PalmPilot screen?

If you did not, then you have a connection problem which is probably caused by one of two things. First, the Serial Port Monitor application is not running. Second, the cradle is plugged into a port other than the one specified in the HotSync Manager application.

2. **Did you check the Log in the HotSync Manager application?** If an error occurs during the synchronization process, it is reported to the Log. Be sure to copy/paste the contents of the Log into any e-mail support correspondence with Chronos. This is very important since the Log let's Chronos know what version of the software you are using among other things.
3. **Does the Conduit Manager application have enough memory?** If you have a lot of data in your PalmPilot or in Consultant, you may have to increase the amount of memory allocated to the Conduit Manager. This is a common source of failure and is therefore one of the first things Chronos recommends you do. The Log in the HotSync Manager application will usually report if the conduit runs out of memory. Please remember that if you receive a low or out of memory message, this means you need to allocate more memory to the Conduit Manager application NOT the Consultant application.

Known Incompatibilities Or Problems

- **Momentum's Port Juggler.** You will not be able to get a synchronization connection if you're using this hardware product. Both 3COM and the hardware maker are aware of the problem and will be addressing it soon.

Frequently Asked Questions (FAQ)

This section contains a list of answers to questions frequently asked by users. You should consult this list and read "Troubleshooting" on page 13 before contacting Chronos for technical support.

- **What should I do if any problem occurs?.** There are two steps you can try for almost any problem. (1) Check the HotSync Manager's Log. For more information on the Log see *HotSync Manager Log* in Chapter *PalmPilot Synchronization* on page 7. A list of error messages you might encounter appear in that section. (2) Try increasing the amount of memory allocated to the Conduit Manager application.
- **An error message appears in the HotSync Manager's Log — what do I do?** First, determine what the error message means. For a description of various error messages see *Log Error Messages* in Chapter *PalmPilot Synchronization* on page 8. Second, follow any suggestions provided in that section and try the synchronization again.
- **When I press the HotSync button on the cradle, nothing happens — why?** Within a few seconds of pressing the HotSync button on the cradle, you should see a small HotSync Progress dialog with three circular icons on your computer screen which indicates that a sync is in progress. If you do not see this dialog, then try the following. First, make sure the cradle is plugged into the correct serial port. Second, make sure AppleTalk is turned off for the serial port in use by the cradle. Third, make sure that the Serial Port Monitor application is launched.
- **A sync appears to happen, but nothing transfers to or from my PalmPilot — why?** Within a few seconds of pressing the HotSync button on the cradle, you should see a small dialog on your computer screen which indicates that a sync is in progress. If you see this dialog, but then nothing on your PalmPilot or in Consultant seems to change then one of two things may have happened. First, an error or problem may have occurred. You can see if this is the case by checking the log. Second, the PalmPilot may think that all of its data is already synchronized. If you believe this is the case, hold the shift key down and perform another sync. Continue to hold the shift key down throughout the entire sync process. For more information on holding the shift key down during a sync see *Force Slow Sync* in Chapter *PalmPilot Synchronization* on page 2. You may also want to try holding the Command and Option keys down during a sync if holding shift down doesn't help.

- **Synchronization has been working great until today when it all of a sudden quit working?** First, check the log to see if any errors or problems have been reported. The Consultant conduit has a 30 trial period after which it expires unless you register it. Your trial period may have ended.
- **How do I move all the data on my PalmPilot to Consultant or vice versa OR how do I switch between one-way synchronization and two-way synchronization?** For more information on one-way and two-way synchronization and how to switch between the two see *One-way And Two-way Synchronization* in Chapter *PalmPilot Synchronization* on page 1.
- **Can I continue to use my old first generation synchronization software with the new software?** No. Both will try to control the serial port, and one will lose.
- **How do I install new application on my PalmPilot or backup my PalmPilot application using the new second generation 3COM software?** You will need to setup the Install conduit via the “Install” menu option in the HotSync menu in the HotSync Manager application. The Backup conduit should automatically run during each sync so long as it is in the Conduits folder.
- **Can I synchronize my public data in Consultant with my PalmPilot?** No. For more information see *Multi-user Environment* in Chapter *PalmPilot Synchronization* on page 2.
- **I use the same serial port via an A/B switch for both my printer and PalmPilot cradle — how do I run the Serial Port Monitor application and continue to be able to print?** The Serial Port Monitor application basically takes control of the serial port and prohibits printing once it is launched. The only possible solution to this problem is to quit the Serial Port Monitor application, print, then restart the Serial Port Monitor application. You can easily quit the Serial Port Monitor application by disabling HotSync from the HotSync Manager application. An ingenious Consultant user has written an Apple script which provides an automated solution to this problem. The script is included in the “PalmPilot™ Synchronization” folder.
- **Why can't I run my fax software and Serial Port Monitor application at the same time?** The MacOS was not originally designed to share serial ports between different programs well. In fact, the MacOS will only let one process have control of the serial port at a time. In general, Mac programs are nice to each other and relinquish the serial port as soon as they are done using it (such is the case with PPP, terminal software, dialing in Consultant, etc.). When this happens life is great. However, programs like the Serial Port Monitor and fax extensions must take control of the serial port and continually monitor it for activity — they never relinquish the serial port since this would disable their effectiveness. The problem can somewhat be solved if you temporarily quit the offending program (like fax software), run the Serial Port Monitor application, do a sync, quit the Serial Port Monitor application, and then start the offending program again. This is easier said than done especially if the offending program is an extension as is the case with fax software. You may have to check with the manufacture of the offending program to find out if there is a way to quit it and restart it. You can easily quit the Serial Port Monitor application by disabling HotSync in the HotSync Manager application.
- **Why doesn't anything happen when I press the HotSync button?** Any 4400/5500/6400/6500/G3 class CPU running an OS earlier than System 8.1 requires the Apple Serial DMA 2.1 update installed. It will not recognize when the HotSync button is pushed if it is not installed.
- **Why do I end up with duplicates after performing a HotSync and what do I do to get rid of the duplicates?** When the Consultant conduit synchronizes data in Consultant and on your PalmPilot, it creates a one-to-one relationship between each Consultant record and each PalmPilot record. After a sync, for example, John Smith in Consultant is matched up with John Smith on your PalmPilot. Once this one-to-one relationship is formed, any changes made to one record are automatically made to the other record during the next sync.

Duplicates typically occur the first time you synchronize your Consultant data with your PalmPilot. Duplicates occur when you already have some of the same information in Consultant and in your PalmPilot previous to the first sync. Suppose, for example, that you already have John Smith in Consultant and in your PalmPilot previous to your first sync. During the first sync, the Consultant conduit will not recognize that these two John Smith records represent the same person. The conduit will therefore add a new John Smith record to your PalmPilot and build a one-to-one relationship between it and the original Consultant John Smith. Likewise, a new John Smith record

will be added to Consultant and a one-to-one relationship will be added between it and the original John Smith on the PalmPilot. You will thus end up with two John Smiths in Consultant and two John Smiths on the PalmPilot.

You're probably asking yourself why the Consultant conduit isn't smart enough to recognize that the John Smith in Consultant is the same person as the John Smith already in the PalmPilot. The answer is that such logic is beyond what a computer can figure out. Too many assumptions would need to be made. After all, it's not uncommon to have two totally different people with the same name. Two totally different people may even have the same name, telephone number, address, etc., as in the case of many father/sons.

If you find that you have duplicates after a sync, you may simply delete one of the duplicates in Consultant and then perform another two-way sync. The two-way sync will delete the corresponding record from your PalmPilot. Do not delete duplicates from both your PalmPilot and Consultant since this may result in deletion of both duplicates during the next sync.

You can avoid duplicates altogether by making sure you don't have similar information in both Consultant and your PalmPilot prior to the first sync. A good way to accomplish this is to start out with an empty Consultant data file prior to the first sync.