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Backup & Restore for *iPAQ* Pocket PC

• *Abstract:* This White Paper describes the tools available to protect data and applications stored on the *iPAQ* Pocket PC.

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Backup and Restore for *iPAQ* Pocket PC White Paper prepared by *iPAQ* Mobile Solutions

Second Edition (May 2001) Document Number 14SZ-0501B-WWEN

Introduction

This White Paper describes the comprehensive tools available to protect data and applications stored on the *iPAQ* Pocket PC.

Microsoft ActiveSync Backup

Microsoft ActiveSync provides comprehensive backup/restore functionality, storing the Pocket PC applications and data in the "backup.stg" file in a folder on your PC. This backup supports both "full" and "incremental" backup operations.

• Full Backup

Creates a copy of all data in the *iPAQ* Pocket PC RAM on your PC. The time this operation takes depends on the speed of the ActiveSync connection and how much data resides on your *iPAQ* Pocket PC.

• Incremental Backup

Updates the backup file stored on your PC with the data that has changed on the *iPAQ* Pocket PC since the last backup operation. This backup will complete in a much shorter time than a full backup.

We recommend that you perform a Full backup the first time you enable backup operations. This is accomplished via the following dialog settings. This dialog is displayed when you select the **Tools, Backup/Restore** menu option.

ackup/Restore	×	
Backup Restore		
Use Backup to create a file on this comp all the files, databases, personal information programs and other information currently of device.	on, RAM-based	
 Full backup Back up all information. 		
Incremental backup Back up only the information that has changed since the last backup.		
Back up to this file:	(
\Microsoft\ActiveSync\Profiles\Guest\Backup.stg	<u>C</u> hange	
Click Back Up Now to begin backing up your mobile device.	Back Up <u>N</u> ow	
Automatically back up each time the device connects.		
ΟΚ	Cancel	

Once you have performed a full backup for the first time by clicking the Back Up Now button, we recommend that you configure the Backup feature with the Incremental Backup selection, so that you don't have to remind yourself to backup your data and applications. This can be accomplished via the following dialog settings.

Backup/Restore	×		
Backup Restore			
Use Backup to create a file on this computer that contains all the files, databases, personal information, RAM-based programs and other information currently on your mobile device.			
 Full backup Back up all information. 			
 Incremental backup Back up only the information that has changed since the last backup. 			
Back up to this file:			
osoft\ActiveSync\Profiles\Pocket_PC\Backup.stgChange			
Click Back Up Now to begin backing up your Back Up <u>N</u> ow			
Automatically back up each time the device connects.			
OK Cancel			

With these settings, every time you cradle your *iPAQ* Pocket PC, it will not only synchronize your data, but it will determine the things that have changed since the last backup and update the backup file on the PC.

Microsoft ActiveSync Restore

In the event of a total data loss on the *iPAQ* Pocket PC, you can restore the device to the state of the most recent backup using the following steps:

1. Connect to the host by attaching the *iPAQ* Pocket PC to the cradle or cable. You will see the following dialog on the PC. Select "No" to connect as a guest, then click "Next."

New Partnership		×
New Partnership	Set Up a Partnership Before you can synchronize information between your mobile device and this computer, you must set up a partnership between them. Would you like to set up a partnership? ✓ Yes Set up a partnership so that I can synchronize information between my device and this computer. ✓ No I don't want to synchronize information. Set up my device as a guest so that I can copy or move information between my device and this computer.	×
	< <u>B</u> ack <u>N</u> ext > Cancel Help	

2. Select the restore operation in Microsoft ActiveSync on PC via the Tools, Backup/Restore menu option, and then select the Restore tab to display the following dialog.

Backup/Restore	x		
Backup Restore			
Use Restore to remove all current information from your mobile device and replace it with the contents stored in the backup file.			
To restore successfully, quit all programs on your device before starting the restore process. Also, do not use your device until the restore process is complete.			
Note: You cannot cancel the restore process once it has started.			
Click Restore Now to begin restoring your Restore Now mobile device.			
OK Cancel	_		

3. Click the Restore Now button to initiate the Restore process. This will cause the following dialog to appear, allowing you to select the partnership that you wish to restore. Select the correct partnership then click OK.

Partnership Selection	×
In the list, select the partnership file that contains your backup file. Click Browse if your backup file is not stored with your partnership file.	
Guest PPC_Demo Pocket_PC PH_Pocket_PC Watte	
OK Cancel	

4. You will then receive a warning indicating that you will be erasing all data on your iPAQ Pocket PC and restoring a previous image of applications and data to the device. This is explained in the dialog

Proceed v	with Restore?		
⚠	Restore will remove all current data from your device. Your data will be returned to the state it was when this backup file was last updated.		
	Note: You cannot cancel restore after it has been started.		
	Proceed with Restore?		
	Cancel <u>R</u> estore		

5. Click Restore to commence the operation.

Restore In Progress	×
٩ 🕹	
Now restoring from 'Backup.stg' Please do not use the device until restore is finished.	
Copying: \Windows\StartUp\QStartUp.Ink	

6. When the Restore operation is complete, you will see this dialog that asks you to remove the device from the cradle and perform a Soft-Reset.

Restore (Complete: Restart device	×
⚠	Restore complete. You must disconnect and then reset your device for these changes to take effect.	
	Consult your manufacturer's documentation for instructions on resetting your device.	
	Note: When you reconnect, ActiveSync may prompt you to combine or discard items in any synchronized databases (Appointments, Contacts, Tasks).	, or
	OK	

7. Once the device resets and you have performed the touch panel alignment configuration and skipped through the remainder of the first-time device configuration screens, you now put the device in the cradle to allow it to synchronize the restored partnership with the PC.

You will always see the following dialog, it's a by-product of the restore process.

Warning: The default selection of "Combine the items…" will likely result in duplicate appointments in your calendar.

We recommend that you select the option shown in the dialog below to avoid duplication of data

Combine	or Replace 🛛 🔀		
⚠	The following information type on your mobile device has items that have not been synchronized with this computer before.		
	Information Type: Calendar, Contacts		
	C Combine the items on my device with the items on this computer.		
	Replace the items on my device with the items on this computer.		
	O Do not synchronize this information type at this time.		
8	OK Cancel		

8. Once ActiveSync completes, you have finished restoring your *iPAQ* Pocket PC.

Compaq Backup

Compaq *iPAQ* Pocket PC provides a backup to a storage card (e.g. Compact Flash) as part of the Q Utilities that are installed in ROM. This utility supports "full" backup operations for the applications and data stored in RAM on the Pocket PC.

• Full Backup

Creates a copy of all data in the *iPAQ* Pocket PC RAM on an optional storage card. The time this operation takes depends on the speed of the storage card interface and how much data resides on your *iPAQ* Pocket PC. However, it's going to be significantly faster than the ActiveSync method over USB or Serial.

The benefit of using the Compaq Backup feature is that you can easily carry your backup data with you on an optional Compact Flash card or miniature hard disk, so that you can restore while away from your office PC.

1. Initiate the Backup operation by starting Q Utilities (tap on the red Q in the status bar on the Today screen). This will cause the following dialog to appear.

	Utilities	10:51a	()
	Select to show in QMer	าน	
	 Align Screen Auto Run Backup Clock Expansion Pack File Explorer Microphone AGC Power Self Test Volume 		
QMe	enu Backup Self Test		
		E	≝ ^

2. Now, tap the Backup tab to display the following dialog.

🎒 QUtilities	10:53a	(ok
Backup to CF		
Restore from C	F	
Save Contacts		
QMenu Backup Self Test		ं

3. Tap on the Backup to CF button to see the summary of what will be backed-up. <u>If you have a</u> <u>ROM version earlier than 1.69</u> you will see this screen. Continue to step 4.

🔀 CF Backup/Restore Utility 10:53a
* Calendar (2.03 KB)
* Channels (3.57 KB)
* Contacts (1.31 KB)
* Inbox (0.69 KB)
* Notes (9.06 KB)
* Tasks (0.11 KB)
* Yoice Recorder (0.00 KB)
* Settings (141.07 KB)
* System Programs (164.74 KB)
Total : 322.63 KB
0 % Start
Backup Restore
™

<u>If you have a ROM version 1.69 or later</u> you will see the following screen, with the addition of a folder icon in the lower left. Select the card or slot you will use for the backup. If you are using the optional Dual-Slot PC Card Expansion Pack, slot 1 is called "Storage Card," as in this example, and slot 2 is called "Slot 2."

Notice that the sizes for all items indicate "None" until you select the storage card you wish to use. This is a mandatory step.



Once you select the storage card to use, you will see the sizes of all items as shown below. This indicates the operation is ready to proceed.



4. Now tap the Start button to commence the backup operation.

5. Wait for this dialog box, indicating that the backup is complete.



6. You can now resume normal operation; your applications and data are safely stored on the storage card.

Compaq Restore

In the event of a total data loss on the *iPAQ* Pocket PC, you can restore the device to the state of the most recent backup using the following steps:

1. Start Q Utilities (tap on the red Q on the Today screen) to display this dialog.

🔀 QUtilities	10:51a	0k)
Select to show in QMer	nu	
 Align Screen Auto Run Backup Clock Expansion Pack File Explorer Microphone AGC Power Self Test Volume 		
QMenu Backup Self Test		3
		∎ ^

2. Tap on the Backup tab to display this dialog.

🔀 QUtilities	10:53a	(ok
Backup to CF		
Restore from CF		
Save Contacts		
QMenu Backup Self Test		
	E	≝ ^

3. Ensure that the storage card with the latest Compaq Backup is connected to the *iPAQ* Pocket PC and then tap the Restore from CF button. If you have a ROM version earlier than 1.69 you will see the following screen. Continue to step 4.

🔀 CF Backup/Restore Utility 12:01p
* Calendar (2.03 KB)
* Channels (3.57 KB)
* Contacts (1.31 KB)
* Inbox (0.69 KB)
* Notes (9.06 KB)
* Tasks (0.11 KB)
* Voice Recorder (0.00 KB)
* Settings (141.07 KB)
* System Programs (164.74 KB)
Total : 322.62 KB
0 % Start
Backup Restore
™

<u>If you have a ROM version 1.69 or later</u> you will see the following screen, with the addition of a folder icon in the lower left. Select the card or slot you will use for the restore operation. If you are using the optional Dual-Slot PC Card Expansion Pack, slot 1 is called "Storage Card," as in this example, and slot 2 is called "Slot 2."

Notice that the sizes for all items indicate "None" until you select the storage card you wish to use. This is a mandatory step.

🔀 CF Backup/Restore	2:40p		
* Calendar - None			
* Channels - None			
* Contacts - None			
* Inbox - None			
* Notes - None			
* Tasks - None			
* Yoice Recorder - None			
* Settings - None			
* System Programs - Nor	1e		
Total : - None	Start	Select the card/slot you will use for the restore – even if there is	
Otomas Cand		only one slot available in your	
Storage Card	mml.	Expansion Pack.	
			

Once you select the storage card to use, you will see the sizes of all items as shown below. This indicates the operation is ready to proceed.



4. Tap on the Start button to initiate the Restore process. You will be informed that this operation will overwrite any data or applications currently on the *iPAQ* Pocket PC. Tap on Yes to start the Restore.



5. Wait for the Restore operation to complete, as indicated by this dialog appearing.



6. Now Soft-Reset the *iPAQ* Pocket PC and then update the date and time using the Clock Control Panel Applet.

7. Now attach the Pocket PC to the cradle or cable to synchronize the restored partnership with the PC.

You will always see the following dialog; it's a by-product of the restore process.

Warning: The default selection of "Combine the items…" will likely result in duplicate appointments in your calendar.

We recommend that you select the option shown in the dialog below to avoid duplication of data

Combine	or Replace 🛛 🔀
⚠	The following information type on your mobile device has items that have not been synchronized with this computer before.
	Information Type: Calendar, Contacts
	C Combine the items on my device with the items on this computer.
	Beplace the items on my device with the items on this computer.
	O Do not synchronize this information type at this time.
	OK Cancel

8. When ActiveSync completes, you have finished the Compaq Restore process.