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Configuring The Portable Digital Assistants (PDAs)

This section is intended to provide the user with the procedures for installing and configuring the software that will allow the host computer to communicate with PDAs that have a Pocket PC operating system. These procedures are not intended to configure the PDA for use with other applications that may have been loaded to it. DPAS utilizes Microsoft ActiveSync as the communications software for communications between the desktop running DPAS and the PDA running the DPAS Inventory application. Microsoft ActiveSync, if not already installed, on the desktop is available as a free download from the Microsoft web site. The steps to configuring the PDA for use with DPAS are:

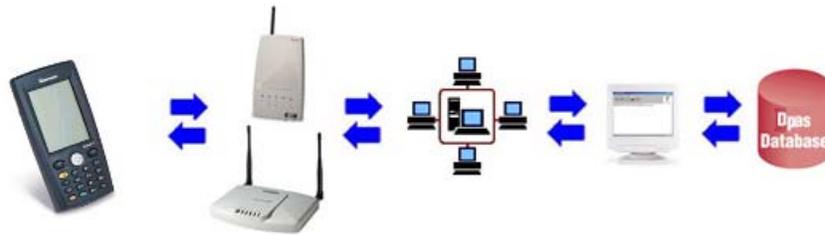
- Connecting the PDA Hardware
- Configuring the PDA for use
- Ensuring compatibility of Microsoft ActiveSync with the Host Computer
- Installing Microsoft ActiveSync
- Creating a Partnership between the Host Computer and the PDA
- Installing the DPAS Inventory Application
- Configuring the PDAs for Wireless Communications (Optional)

Background

DPAS has developed software for use with the Intermec© 700 Series, Symbol© PDT 8100 series, and the Symbol© PPT8800 series mobile computer. The operating system of these mobile computers must be Microsoft Windows for Pocket PC 2002 or greater. The mobile computers, herein referred to as PDAs, are available in a number of configurations. Kits containing the specific components required by DPAS have been created, and are available for viewing from the DPAS web site. Kits range from the basic model with monochrome display with a 1D scan engine, batch mode to a fully loaded model with color display, digital imager and wireless radio. Users should identify their specific requirements, and select the appropriate PDA that meets their requirements.

About the Pocket PC Mobile Computer

Portable Digital Assistants (PDAs) are available from many manufacturers. DPAS has selected one Intermec series and two Symbol series that contain either a linear bar code reader (1D) or an imager that is capable of reading linear bar codes, multi-dimensional bar codes (2D) and taking gray scale pictures. Most are available in either batch only or batch and wireless configurations. Each has a RS-232 serial communications port that is used to transfer data to and from the PC using Microsoft ActiveSync, and can be used to connect the Intermec 1555 RFID reader to accommodate those users who are utilizing Passive Tag (RFID) technology to conduct inventories. The wireless capability allows the terminal to communicate real-time with the host PC running the DPAS PDCD Manager. Communication is established through RF access points that accept wireless transmissions from the PDA to the local area network to the PC running the DPAS PDCD Manager application. For those users who require FIPS 140-2 wireless capabilities, the Pocket PC OS provides for the installation of the FIPS 140-2 client. Users who desire to use the wireless feature must ensure the radio contained within the PDA is compatible with the Wireless network that is in place. All of the wireless models, as of this writing, utilize the 2450 GHz range 802.11b Direct Sequence radio. The following diagram depicts a simple wireless network setup.



For additional information concerning the Intermec© 700 series PDA, refer to the User Guide or the Intermec web site at: <http://www.intermec.com>. For additional information concerning the Symbol PDT 8100 series or the PPT 8800 series, refer to the respective User Guide or the Symbol web site at: <http://www.symbol.com>. It is recommended that a review of the procedures for the care of the device and the batteries be reviewed and adhered to. If a User Guide is not readily available, it can be downloaded in PDF format from the vendor's web site.

Required Hardware for the PDA

To utilize one of the PDA's with DPAS there are several pieces of hardware that are required to complement the PDCD itself. They are: a Communications Docking Station, Power Supply for the Docking Station, RS-232 Null Modem cable, and a battery to power the terminal. For wireless connectivity, access points strategically connected to the LAN to provide a seamless RF environment are also required. To assist in the purchase of the required hardware, DPAS has developed 'Kits'. For additional information concerning the kits, refer to the DPAS web page at <https://www.dpas.dod.mil>.

Docking Station: The docking station (a.k.a. Communications Dock) allows for communication between the PDA and a host PC via RS-232 Serial Communications. Some models are also equipped with connections ports for communications via USB or LAN, if desired. DPAS utilizes Microsoft ActiveSync for its communications layer, thus any port of choice is acceptable. The docking station also doubles as the battery charger. The PDA can be placed in the docking station when not in use to recharge the batteries. Some docking stations are equipped with a second battery slot that permits the charging of a spare battery simultaneously as the one in the PDA is being charged. In lieu of a docking station, a cable connected directly to the PDA Comm port is also an acceptable method for establishing communications with the host PC.

Cable: The docking station requires a cable to connect to the host PC. Depending upon the port utilized, the cable will either be a RS-232 Serial cable, USB cable or a LAN cable.

Power Supply: To charge the battery of the PDA, a power supply is required that is compatible with the PDA. Depending upon the PDA and power supply, the power supply may be capable of being plugged into the docking station, and/or possibly directly into the PDA.

PDA Navigational Tips

As with any device, the vendor utilizes keyboard input to navigate the system and to input data. By selecting a common operating system 'Microsoft Pocket PC' for the PDA, this simplifies the navigational uniqueness among PDAs. The navigation process is virtually the same for all PDAs. The only real differences that should be noted is specific functions relating to hardware such as the warm/cold boot process, keyboard configurations, function keys and specific folders and processes the vendor may have incorporated into their units. The best source for this information is the specific PDA's User Guide. The following are some functions that you will need to know to get started:

Function	Intermec 700	Symbol 8100	Symbol 8800
Start Menu	←-----	Tap Upper Left Microsoft Symbol	-----→
Selecting	←-----	Single Tap -----	-----→
Accept	←-----	Double Tap -----	-----→
Warm Boot	Hold On/Off 15 Seconds	Hold On/Off 15 Seconds	Function & Enter & Scan Button
Cold Boot	←-----	Press Reset (inside back cover) while pressing the on/off button	-----→

Connecting The PDA Hardware

After unpacking the PDA and ensuring all of the required hardware is accounted for, perform the following actions:

1. Connect the docking station to the host computer using the RS-232 Serial Cable, USB cable, or LAN cable depending upon the type of connection desired.
2. Place the battery in the PDA.
3. Attach the Pistol Grip Handle to PDA, if purchased.
4. Connect the Power Supply to the Docking Station or directly to the PDA's power port.
5. Place PDA in the docking station to charge the battery if power supply is not connected directly to the PDA.



NOTE:

When placed in the docking station, one or more lights on the docking station or PDA should light, depending on the make and model. If equipped with a second battery slot, the second light will only light when the second battery is placed in the charging slot.

Configuring The PDA For Use

The PDA must have a unique 'Device Name' assigned prior to connecting it to the host computer to allow the docking station to be used to transfer data between more than one PDA and when a "Standard Microsoft ActiveSync Partnership" will be established for each PDA. There is also a number of other setup actions (owner, what to display in the Start Menu, what to display upon startup, what to display on the desktop, etc) that can be performed to individualize the PDA. If not familiar with the specific PDA, consult the User Guide. To assign/change the Device Name and verify Communication Settings.

1. Ensure PDA battery has been charged
2. Select **Start > Settings > System tab > About Icon > Device Id tab**.
3. Enter a Device Name that is unique to the device. The name must commence with an **alpha** character. An example might be: Int 00053503 where "Int" signifies that the device is an Inter-mec and '00053503' is the Bar Cd number. If the unit were a Symbol unit, then the Device Id might read as follows: 'Sym 00053503'.
4. Select **Start > Programs > ActiveSync** (if ActiveSync is not found on the start menu) to validate/set the port, the PDA will use the ActiveSync communication.
5. Select **Tool tab**, then **Options**.
6. Validate/Set the first list box to the type of port and port speed to use. For Serial Comm. Port communications, set it to "115200 Default".
7. Select the **Schedule** tab, ensure all are unchecked.
8. Select **OK** in upper right corner of the window and then exit ActiveSync to go back to main menu.

Ensuring Compatibility of Microsoft ActiveSync with the Host Computer

Microsoft ActiveSync requires a minimum PC configuration. The following is the list of those requirements. Should the designated PC fail to meet these requirements, it must be upgraded to the minimum level or replaced to use the DPAS Inventory application.

- Microsoft Windows XP, Windows 2000, Windows Millennium Edition, Windows NT Workstation 4.0 with SP6 or later, or Windows 98
- Microsoft Internet Explorer 4.01 SP1 or later
- Hard-disk drive with 12 to 65 MB of available hard-disk space (actual requirements will vary based on selection of features and user's current system configuration)
- Serial Port, infrared port, or USB port (available for Windows 98, Windows Me, Windows 2K, and Windows XP OSs only)
- VGA graphics card or compatible video graphics adapter at 256 color or later
- Keyboard
- Microsoft Mouse or compatible input device.

Installing Microsoft ActiveSync

DPAS utilizes Microsoft ActiveSync for the communications layer between the host computer and the PDA. If the host computer does not have Microsoft ActiveSync installed, it will need to be downloaded from the Microsoft website and installed prior to proceeding. If Microsoft ActiveSync is installed, proceed to **Creating A Partnership Between The Host Computer And The PDA** to establish a partnership between the host computer and the PDA.

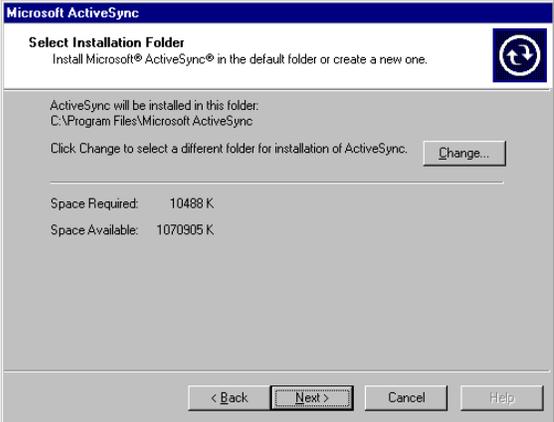
As with all software, Microsoft periodically releases updated versions of their software. The ActiveSync software is no different. As of this writing, Microsoft had released version 3.7.1. Testing has been conducted with versions ranging from 3.5 through 3.7.1. There were no incompatibilities with DPAS on any of the versions. Whether future versions will be compatible is not known. Should there be a need to download a later version, it recommended that Microsoft’s release notes be reviewed prior to installing the later version as such action may require updates to the PDA’s Pocket PC or components. To download and install Microsoft ActiveSync:

1. Using an Internet browser, download ActiveSync from: <http://www.microsoft.com/windowsmobile/resources/downloads/pocketpc/default>.
2. Navigate the website and locate the download for Microsoft ActiveSync and save to your PC (**Note the location of the downloaded file**).
3. Once the install file is downloaded, locate the directory where it was placed and double-click on the **msasync** icon. The following screen will appear, or a similar one depending upon the version of ActiveSync being installed.



4. Select **Next>**. The following or similar window will appear if this is the initial install of ActiveSync.

5. Select **Next>** or browse for a new installation folder, then select **Next>**.



Creating A Partnership Between The Host Computer And The PDA

The next series of actions will create the communications partnership between the host computer and the PDA. These windows will automatically appear when a new PDA is placed in the docking station that a partnership has not been previously established.

1. As noted in the window, ensure the cables are connected and the PDA is placed in the docking station and on prior to proceeding, then select **Next>**.



NOTE: On some Intermec devices, the Comm. Port may be defined for use with specific devices, thus not allowing the ActiveSync to establish a connection. Should the **Get Connected** window not appear when the PDA is docked, check to ensure the PDA is configured correctly. To verify/change: 1.) Locate the scanner icon in the lower right corner of the PDA Today window, 2.) Tap it to display the menu. 3.) The **Disable All** should be marked. If not, touch this option to make the change.

The partnership to be established is your option. The Standard Partnership will allow the PDA to automatically connect when the PDA is placed in the docking station without action by the user. When Guest Partnership is selected, this window will be displayed each time the PDA is placed in the docking station since no relationship has been established. Guest Partnership does not provide for automatic synchronization of files that reside on the host computer and the PDA. DPAS does not require this feature, thus either partnership is acceptable for use with the DPAS application.

NOTE: If you do not want to see this window each time the PDA is docked, select "Standard Partnership".

2. Select desired partnership and then select **Next>**.



NOTE:

If Guest Partnership was selected, this ends your setup. If Standard partnership was selected, the following additional windows will appear.



3. Select **Synchronize with this desktop computer** and then **Next>**.

4. Select **Yes, I want to synchronize with this computer** and then **Next>**.

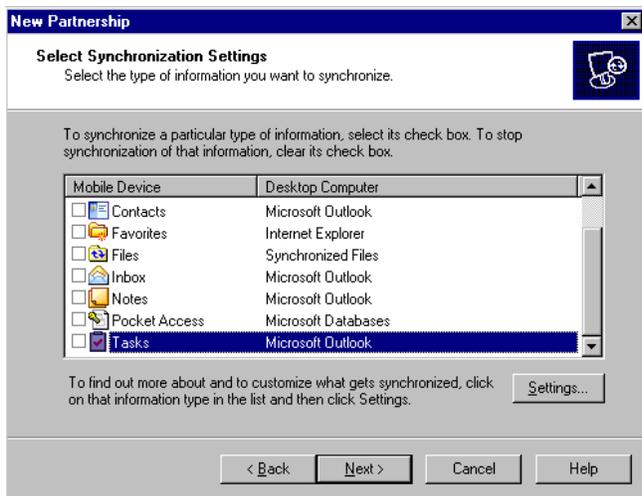
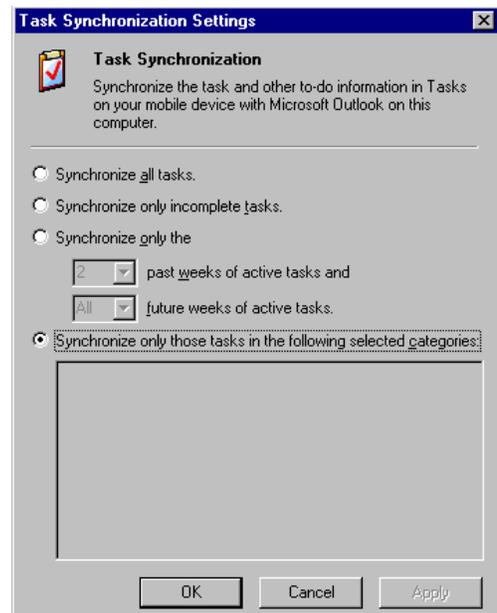




5. Uncheck all items on the synchronization selection screen, and then select **Settings**.

NOTE:
 If synchronization of any of these folders is desired, for reasons other than DPAS, check the appropriate file folder.

6. Select **Synchronize only those tasks in the following selected categories**. Ensure none are listed, unless several were selected in the previous step for purposes other than DPAS, then select **OK**.



7. Select **Next>**.

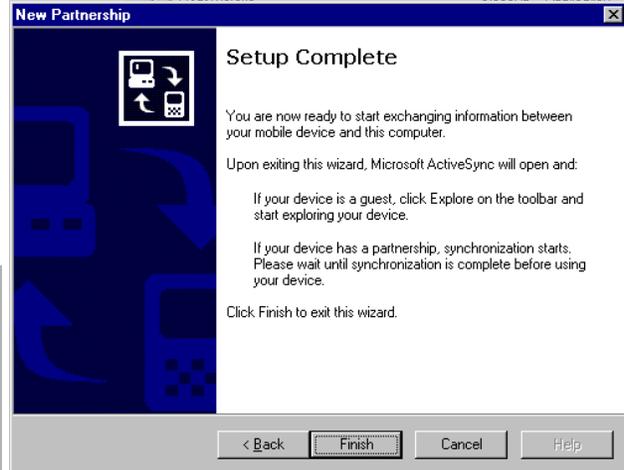
8. Select **Finish**.

Your communications layer between the host computer and the PDA is now complete. When the PDA is placed in the docking station, communications will automatically be established.



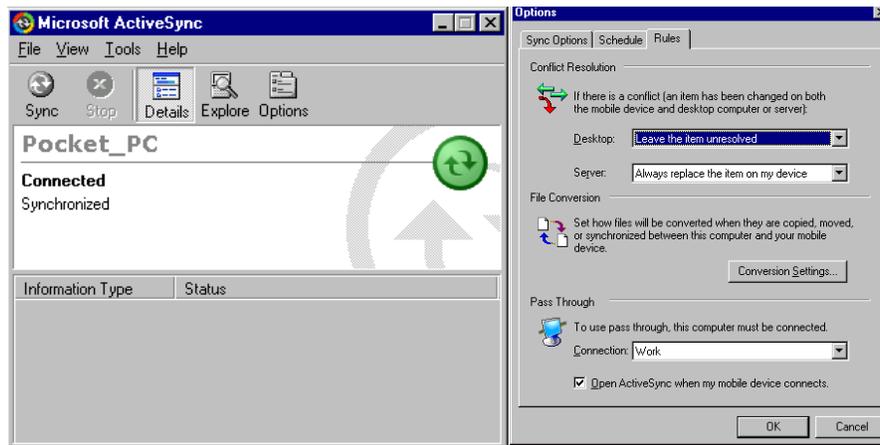
NOTE:

If the standard setting has not been changed, the ActiveSync icon will always display in the host computer's lower right corner as a quick pick. When it is grayed, the connection is inactive. When it is green, the connection is active.



The standard configuration has the ActiveSync window popping up and displaying. If there is a desire to have ActiveSync discontinue this option, this can be stopped by selecting "Options" from the ActiveSync window as follows:

9. Select the **Rules** tab.
10. Uncheck the box **Open ActiveSync when my mobile device connects** at the bottom of the window.
11. Select **OK**.



NOTE:

You can have it reappear by simply opening the Options window and rechecking the box and selecting **OK**.

Installing The DPAS Inventory Application On PDA

Once the PDA has been powered and partnership has been established with the host computer, the DPAS inventory application can now be copied to the PDA. The installation is accomplished using the PDCD Manager. The steps are as follows:

1. Ensure the PDA is docked with, and the partnership is established with the host computer.
2. On the PDA ensure Pocket DPAS is not running. If it is, select **Exit DPAS** from the File Menu.
3. On the host computer start the PDCD Manager, make sure the PDCD Type is set to **PDA Pocket PC**. If not, switch to this type of PDCD prior to proceeding by using **Commands > Select/Change PDCD Type**.



NOTE:

You do not have to have DPAS running to use the PDCD Manager.

4. Select **Commands > Download PDCD Program**.
5. Select the applicable PDA type from the list box of available PDAs that DPAS supports.
6. Select **OK**. When **OK** has been selected, the PDCD Manager will copy the appropriate files to the PDA.
 - a. For the Intermec 700 monochrome display series:
 - ITCStingRaySDK.CAB
 - intermecdpas.arm.cab
 - b. For the Intermec 700 color display series:
 - ITCsearaySDK.CAB
 - intermecdpas.arm.cab
 - c. For the Symbol 8100/8800 series:
 - symboldpas.arm.cab
7. When the PDCD Manager successfully completes the transfer, it will send a request to the PDA to perform the install of the DPAS software.
8. If Pocket DPAS has been previously installed on the PDA, the PDA will prompt whether an overlay of the existing program is desired. Respond **Yes** to permit the updated version to be installed. You may also be prompted to overlay the SDK files.
9. The installation is now complete and the PDA is ready for use. Follow the procedures outlined in Annex F.2 for generating inventories and importing/exporting the inventories to the PDA Pocket PC device.

Configuring The PDAs For Wireless Communications (Optional)

Some of the PDA's can be purchased with an internal radio that allows the unit to communicate over a wireless network. This requires compatible access points to be strategically positioned throughout the coverage area. In order for the Wireless Mode of the DPAS Pocket PC application to function properly, the network parameters within the PDA must be set. You must also identify the Host PC that is running the PDCD Manager that the PDCD will be communicating with. To obtain/set the network parameters, you will need to work with your Network Administrator.



NOTE:

The following instructions do not address the implementation and configuration of a FIPS 140-2 secure wireless client/server configuration due to the many different vendors/products available in the marketplace. Users who are implementing a FIPS 140-2 solution should adapt the following steps to their specific product configuration requirements.

1. **Configuring and obtaining information about the Host PC running the PDCD Manager:**
 - a. Start the PDCD Manager, if not already running.
 - b. Select **Commands > Select/Change Mode** and choose **Batch and Wireless** option, then select **OK**.
 - c. Select **Commands > Show Host Information**.
 - d. Record the Port Number and Host IP address for later use. The default port of 2300 for the Host PC's wireless comm. can be changed if there is a desire/need to use a different port number. To change, select **Commands > Select/Change wireless TCP/IP port**. The PDCD Manager will only monitor one port, thus all wireless devices operating the DPAS application will utilize the identified port.
 - e. Configuration of the PDCD Manager is now complete.
2. **Configuring the PDA.** The hardware vendors provide the software for configuring the radios in the PDA; thus the graphical interface for configuring the radio could be different even among models of PDAs produced by the same vendor.
 - a. For the Intermec 700 series wireless, Intermec has a number of manuals that are available in PDF format that will assist with the configuration. They can be found at:
http://www.intermec.com/eprise/main/GSS/Service/Content/Manuals/Manual_Home
 - b. The following actions will guide you through the processes that will need to be configured.
 - 1) Tap **Start > Settings > Connections > Network Adapters**. Select **802.11b etc.**, then **Properties**. Complete the properties for the IP Address and Name Servers, if applicable.
 - 2) Tap **Start > Settings > Connections > Connections**. Create a profile that matches your wireless network.



NOTE:

The profile name becomes the SSID, if the checkbox remains checked; otherwise the profile name can be different than the SSID.

- 3) Tap **Start > Settings > System > Wireless Network**. Create a profile for your wireless network inputting the Network Type and security parameters.
- 4) The Intermec PDA can have the radio turned on/off by selecting the Network icon in the lower right hand corner of the desktop window.

**NOTE:**

If the Pocket DPAS menu is displayed select File – Exit to return to the PDA's desktop window.

- 5) Select **Wireless 802.11** or the applicable network that the PDA is equipped with. If you are not using the wireless radio, it is recommended that it be disabled to reduce the resources the radio requires to poll for a wireless connection that is not available.
- 6) Select **Start > Pocket DPAS**.
- 7) Select **Utilities** from the Pocket DPAS Main Menu.
- 8) Select **Configuration**.
- 9) Enter the PC's IP address and the Port Number obtained from the PDCD Manager in Step 1d, then select **OK**.
- 10) From the Utilities menu, select **Test RF Connect** to determine if settings for the wireless connectivity have been established correctly between the Host PC running the PDCD Manager and the PDA.

**NOTE:**

Be sure the Host PC has the PDCD Manager running prior to conducting the test. If a successful test does not occur, re-verify that the network parameters were established correctly, then perform the test until a positive outcome is obtained.

- c. For the Symbol 8100/8800 series wireless, Symbol has a number of manuals that are available in PDF format that will assist with the configuration. They can be found at: <http://www.symbol.com/services/manuals/terminal/terminal.htm>. The following actions will guide you through the processes that will need to be configured.
 1. The Symbol PDA can have its radio parameters input by selecting the network icon in the lower right hand corner of the desktop window.

**NOTE:**

If the Pocket DPAS menu is displayed select File – Exit to return the PDA's desktop window.

- 2) Complete the data on the various tabs. When finished, select **OK** to return to the PDA's desktop window.
- 3) Select **Start > Pocket DPAS**.
- 4) Select **Utilities** from the Pocket DPAS Main Menu.
- 5) Select **Configuration**.
- 6) Enter the PC's IP address and the Port Number obtained from the PDCD Manager in Step 1d, then select **OK**.

- 7) From the Utilities menu, select **Test RF Connect** to determine if settings for the wireless connectivity have been established correctly between the Host PC running the PDCD Manager and the PDA.

**NOTE:**

Be sure the Host PC has the PDCD Manager running prior to conducting the test. If a successful test does not occur, re-verify that the network parameters were established correctly; then perform the test until a positive outcome is obtained.

PDA Recovery Procedure For Windows CE Smart Minimize

Under certain conditions Windows CE will perform a "smart minimize" operation which may place DPAS Inventory Application "in the background". If this occurs the Pocket DPAS application will not be visible from your start menu. This is a known "bug" in this Microsoft software; however, a solution that would prevent this from happening is not yet available.

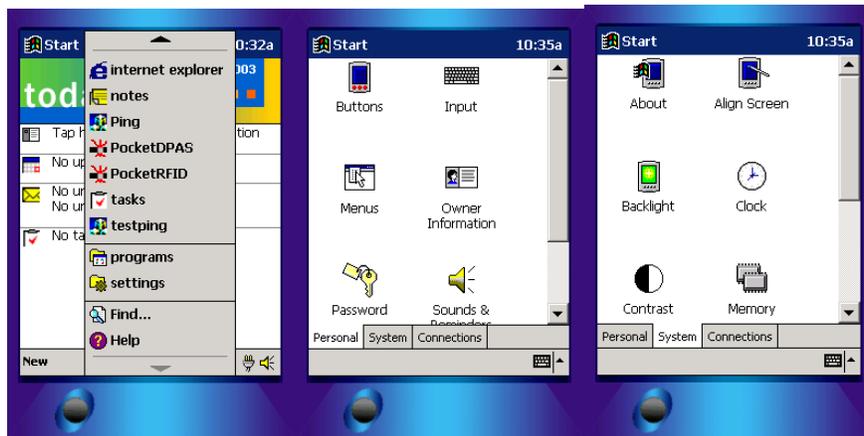


NOTE:

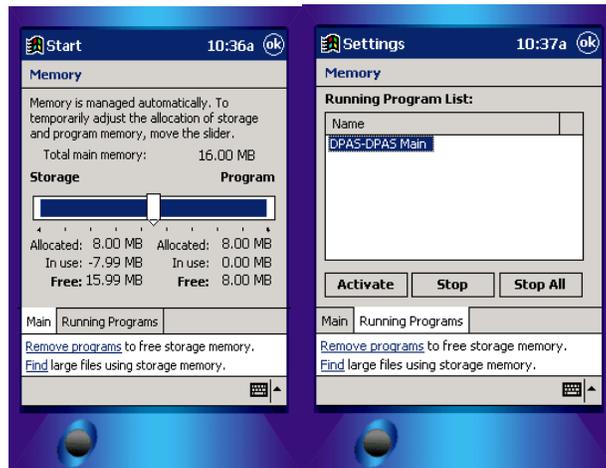
The application is still running and must be recovered. The following procedure will resume a running DPAS session if it becomes inaccessible from the start menu.

To resume DPAS processing, should this occur, perform the following actions:

1. Select **Start > Settings > System tab > Memory** icon.



2. Select **Running Programs** tab, then select **Pocket DPAS**, then select the **Activate** button to bring the application to the forefront.



Conducting Inventories Using Pocket PC PDAs

This section provides the user with procedures for using Personal Digital Assistants (PDA's) in the performance of conducting inventories. The Pocket DPAS developed software has a number of approved PDA's for use in conducting automated inventories. For additional information about the PDA's that have been approved for use with the DPAS, refer to the DPAS Web Page. In addition to conducting inventories with a PDA, users can also perform 1) Sub Hand Receipting, 2) Record Action Items, 3) Update Condition Cds, and 4) Take a Picture (when the PDA is equipped with an Imager) as the inventory is being conducted. Inventories may be conducted in Batch or Wireless modes. Wireless mode requires the use of wireless access points attached to the Local Area Network where the inventory is being conducted, and a PDA with a matching radio. Batch and Wireless modes require the initial export of the inventories to the PDA prior to commencing the inventory while only the batch mode requires the exporting of the data to the DPAS desktop client after the inventories have been completed.



NOTES:

Prior to commencing any inventories using a PDA, the PDA must first have the DPAS application installed and configured for use with the DPAS. If this has not been performed, refer to **Configuring Portable Digital Assistants PDAs for use with the DPAS** for instructions in configuring the PDA. As of this writing, when pictures are taken during the inventory process, docking of the PDA to export the pictures to a drive on the LAN is required. At sometime in the future this may change.

WINDOWS CE: Under certain conditions Windows CE will perform a "smart minimize" operation, which puts the inventory application "in the background". If this occurs the Pocket DPAS icon will not be displayed on the start menu. This is a known "bug" in this Microsoft software; however, a solution that would prevent this from happening is not yet available. The application is still running, and must be recovered using the procedures found in **PDA Recovery Procedure for Windows CE Smart Minimize**.

Conducting Inventories Using A Batch PDA

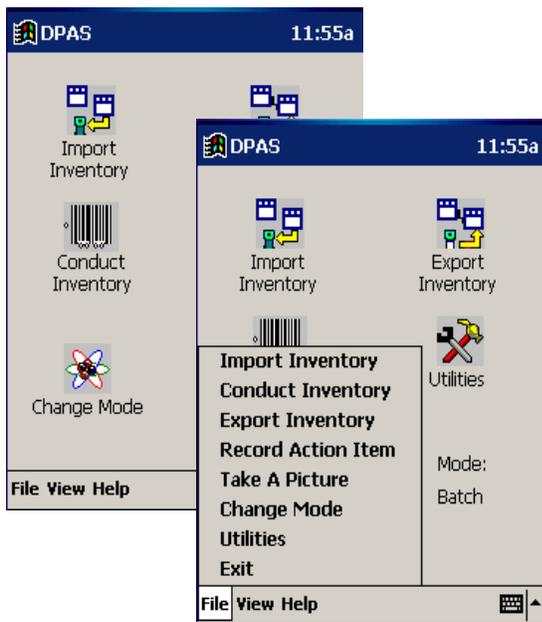
To conduct an inventory in batch mode, the following steps are required:

- Import Inventory(ies) to PDCD
- Conduct Inventory
- Export Closed Inventory(ies) from PDCD

Import Inventory to PDA

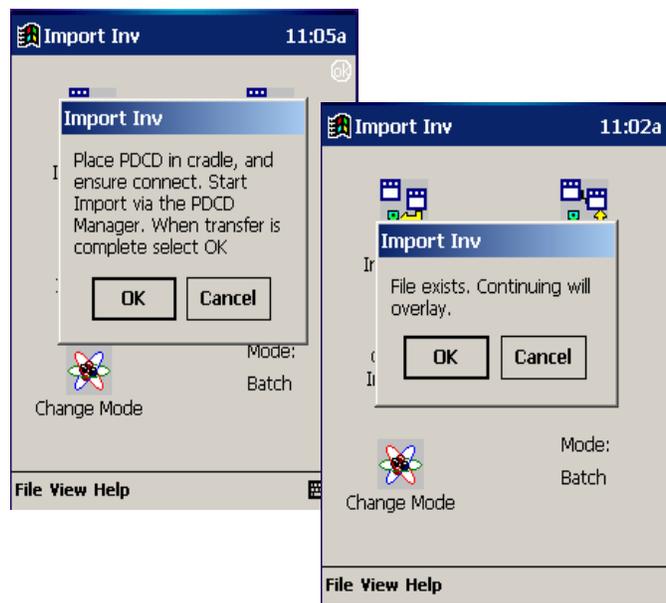
To import an inventory to the PDA, the inventory must have been previously generated. Refer to **Generate Inventories Process Description** for information on how to generate inventories. Once the inventory has been generated, the inventory is now available for importing to the PDA. To import the data:

1. Start the Pocket DPAS application.
 - Turn on the PDA.
 - Tap the Windows Start Menu (upper left corner).
 - Tap (select) **Pocket DPAS** to start the DPAS application.



2. From the Pocket DPAS Main Menu tap **Import Inventory**, or tap **File/Import Inventory**. If previous inventories exist on the PDA, a prompt will be displayed ensuring that an overlay of the existing inventory data is desired.

3. Respond by tapping **OK** to continue. A response of **Cancel** will cancel the proposed import and will return to the Main Menu for another selection. Once **OK** is selected, place the PDA in the docking station, if not already docked.
4. From the PC, open the PDCD Manager and select **Create File and Export** to PDA (File Menu or toolbar button).



- 5. Select the type of inventories that you wish to select from and whether to download the inventory and detail information or inventory information only and indicate whether optional sections are to be printed with the Reconciliation Report.

 **NOTE:** If you select **Download Inventory List Number** only, only the bar code number will be visible in the PDA display when scanning an asset. However, this option will allow the PDA to store more records for larger inventories.

- 6. Select the inventory(ies) to be exported from DPAS
- 7. Once selected, select **Save** (the system will: query the DPAS to retrieve the selected rows and create a file on the PC for subsequent transfer to the PDA).
- 8. Once the transfer to the PC has been completed, it will then transfer the inventory data to the PDA. Once the process has completed the transfer to the PDA, a notification will be displayed to indicate the transfer to the PDA was successful.

 **NOTE:** Once the data has been transferred to the PDA, the process will upload the data in the files into a database on the PDA. Depending upon the number of records to be uploaded, the time required to perform this action could be seconds to several minutes. The PDA will display a busy symbol while this process is occurring. Wait until the process has completed before attempting any action with the PDA.



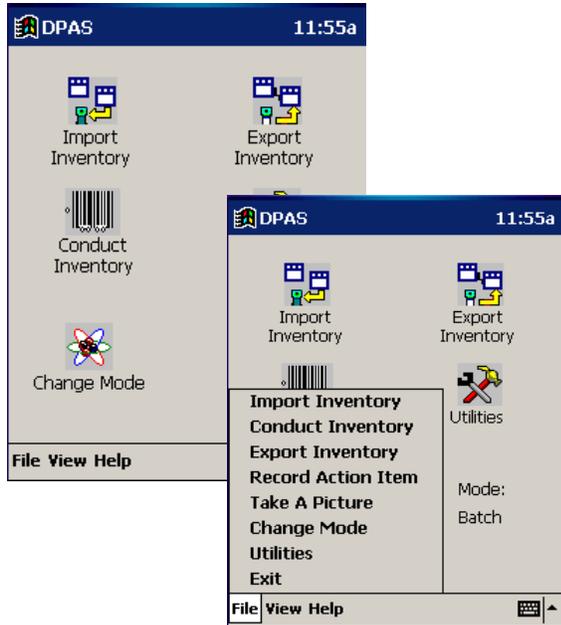
- 9. Click **OK**.

 **NOTE:** Should the transfer fail for any reason; the file will remain on the Host Computer for reattempts. Prior to performing a reattempt, verify the PDCD Type is correct (Pocket PC), Microsoft Active Sync displays a connection with the PDA, and the Import Inventory option from the PDA's Main Menu has been selected, then using the PDCD Manager (PC side) select "File - Export to PDCD" to initiate the start of the transfer to the PDA once again.

Conduct Inventory

Once the inventories have been successfully transferred to the PDA, you are ready to begin the actual inventory process.

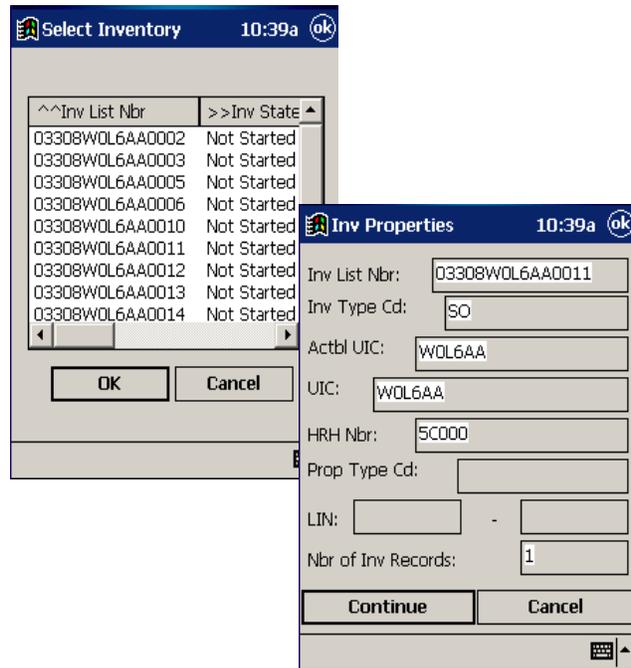
1. Remove the PDCD from the docking station
2. Tap on the **Conduct Inventory** icon or select **File/Conduct Inventory**.



3. Select the Inv List Nbr for the inventory to be conducted by highlighting it and then selecting **OK**, or by double tapping the desired Inv List Nbr.

NOTE: **Not Started, Inactive, and Active** inventories can be selected. Once an inventory is marked "Completed", it must be re-imported to the PDCD in order to be able to conduct it again should there be a requirement to do so.

4. Verify that the Inv List Nbr selected is correct and tap **Continue**. If incorrect, select **Cancel** and select the correct one.



5. **Input Inv User Id** (Person conducting the inventory), and initial Location/Sub Location by selecting from the list box, scanning labels or by keying the data, then tap **OK**.



NOTE:

All Locations that are input must match a location contained in the master location table; otherwise, the transaction will violate during the reconciliation process for an invalid location and will require correction. Sub-Locations are optional and are not table driven, thus Sub-Locations that are different than what is currently in DPAS will not result in a violation.

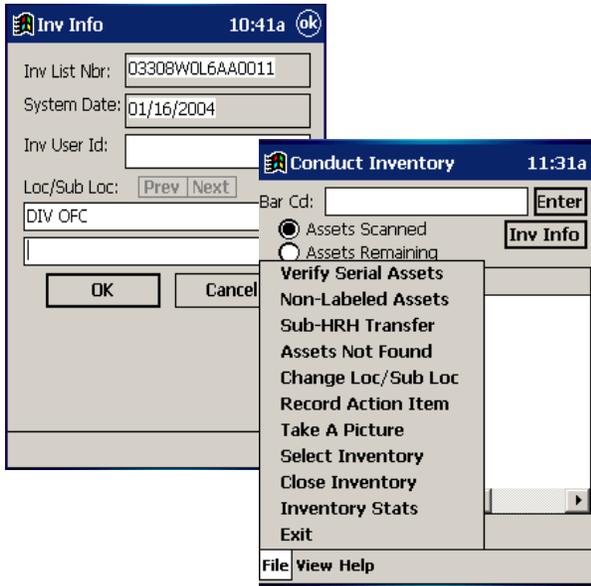
6. Begin conducting the inventory by scanning the Bar Code Labels, or by keying the Bar Code directly into the PDA and tapping **Enter**. The display of **Assets Scanned**, or **Assets Remaining** can be selected. The default is **Assets Scanned**. This window will display 9 rows at a time. Tap the **Prev/Next** keys to view in either direction. When one or both action buttons are grayed, there are no more assets to display in that direction. An asset can also be selected from the **Assets Remaining** window by double tapping the row to move it to the Bar Cd field, and then by tapping **Enter**, the asset will be inventoried as **Keyed**.



NOTES:

When a Bulk Bar Code (Bar Code begins with "BULK") is keyed or scanned, the PDA will announce that a Bulk asset has been input by stating "Bulk asset, enter quantity", then the window will change to provide for input of the quantity. Once the quantity is input, the process will return to the Conduct Inventory Processing Window.

If the Detail Inventory has been exported to the PDA, and the Bar Code Label that is input exists, it will display the Bar Cd, Nomen and Serial Nbr of the asset in the Assets Scanned window. If the Detail Inventory has not been downloaded, or a Bar Cd has been scanned that is not contained in the Detail Inventory, "Not Available" will be displayed as the Nomen.



7. Continue to scan all assets in the current Loc/ Sub Loc until all have been scanned. When the Loc or Sub Loc changes, tap the **Inv Info** action button to pop-up the window to perform the change. Perform the update, then tap **OK** to return to the **Conduct Inventory** window. While conducting the inventory, the DPAS application provides other features that can be performed. These features are available from the File Menu.

Verify Serial Assets

The automated inventory process is not dependent upon assets having a bar code number being assigned to an asset. When an activity has not fully implemented bar codes for all assets (e.g. weapons), the Verify Serial Assets selection from the file menu permits the validation of an inventory by reviewing serial numbers of assets without bar codes.

- Non-bar coded assets that have not yet been inventoried will be displayed in the window. The user can limit this list by selecting a specific Loc, Sub Loc, or by specific Stock Nbr by entering the Stock Nbr or a portion of the Stock Nbr. Once the list is displayed the user will place check marks next to all assets that exist. After marking the appropriate assets tap **Verify**. Once verified, assets will no longer be listed in this window. Tapping **Cancel** will return the application to the Conduct Inventory screen without verifying any assets. The user can return to this list at any time during the inventory. Use the **Inv Info** action button to change the Loc, Sub Loc at anytime. Once changed, all assets inventoried after the change will have the new Loc, Sub Loc assigned to them as the Inv Loc, Sub Loc.

Verify Serial Assets 11:18a ok

Loc/Sub Loc: Prev Next

15

Stock Nbr:

Serial Nbr	Stock Nbr
<input type="checkbox"/> REVOLVER1	1005000037
<input type="checkbox"/> REVOLVER2	1005000037
<input type="checkbox"/> REVOLVER3	1005000037
<input type="checkbox"/> REVOLVER6	1005000037
<input type="checkbox"/> REVOLVER7	1005000037

Prev Next

Verify Inv Info Exit

Non-Labeled Asset

When an asset is found that does not contain a Bar Code Label, but appears that it should have been labeled, select **Non-Labeled Asset** from the File Menu.

- Key in the Nomen, and Serial Nbr, or Nomen and Qty. This info will print on the reconciliation report for subsequent research by the PBO.

The screenshot shows a dialog box titled "Non-Labeled Assets" with a timestamp of "2:49p" and an "ok" button in the title bar. The dialog contains three input fields: "Description:", "Serial Nbr:", and "Qty:". Below the input fields are "OK" and "Cancel" buttons. A keyboard icon and an upward arrow are visible in the bottom right corner of the dialog.

Sub HRH Transfer

The Sub HRH Transfer selection provides the capability to perform Sub Hand Receipting. To Sub Hand Receipt, Inventory an asset, or highlight the desired row in the list box below the Bar Cd entry field, then select Sub HRH Transfer from the File menu.

- Input the Sub Hand Receipt Nbr or leave blank if transferring from a Sub back to the Major. Then, input Local Use Info (Optional). When complete, select **OK** to accept the input and return to the Conduct Inventory window. **Cancel** will return the user to the Conduct Inventory Process without generating a Sub-HRH Transfer transaction.

Assets Not Found

When the detail asset information is exported to the PDCD, a review of assets that have not yet been inventoried, may be performed in attempt to locate all assets prior to closing the inventory and running the reconciliation.

1. To perform a review of the assets not found, select **Assets Not Found** from the File Menu. The user is given the option view all assets not yet inventoried or to limit the list of assets by inputting a specific Loc, Sub Loc.



NOTE:

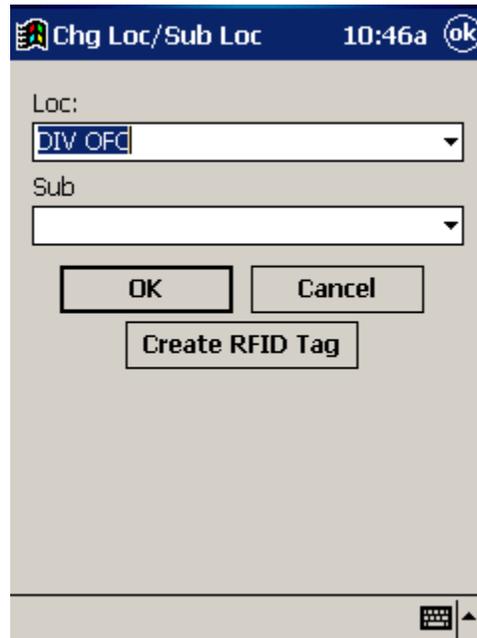
This window will display the same assets as the **Assets Remaining** list box in the Conduct Inventory window, only more data about the asset (Ex: Loc and Sub Loc last recorded).

BarCode	Nomen
LIA0000670	GATEWAY
LIA0000838	PRIN HP LA
LIA0000858	PRIN HP LA
LIA0000218	H.P. VECTF
LIA0001133	NOKIA 516
LIA0001182	DELL OPTII
LIA0000991	IBM SELEC
LIA0001217	DELL ULTR

2. After reviewing the list, tap **OK** to return to the Conduct Inv Window and inventory the remaining assets.

Change Location/Sub Location

1. An alternative to using the Inv Info window to update the Loc or Sub Loc, tap **File** then **Change Loc/Sub Loc** to display a window that permits the change of the Loc, Sub Loc and to create a new RFID Location tag.



The screenshot shows a mobile application dialog box titled "Chg Loc/Sub Loc". The title bar includes a menu icon, the text "Chg Loc/Sub Loc", the time "10:46a", and an "ok" button. The main area contains two dropdown menus: "Loc:" with "DIV OFC" selected, and "Sub" which is currently empty. Below the dropdowns are three buttons: "OK", "Cancel", and "Create RFID Tag". At the bottom right corner, there is a small keyboard icon and an upward-pointing arrow.

2. Scan, select, or key the new locations and return to processing by selecting **OK**. Selecting **Cancel** will result in a return to the Conduct Inventory window without change.

Record Action Item

1. To record an **Action Item**, scan an asset label, highlight a row in the assets inventoried list box, and then select **Record Action Item** from the File Menu.
2. Select an **Action** from Action list box, and enter a text description of the Action. If the Cond Cd requires an update, select the appropriate value from the list box; otherwise, leave blank.
3. Select **Save** to record the Action. Selecting **Exit** without selecting **Save** will cancel the action. **Exit** will return the user to the Conduct Inventory process.

Using the Record Action Item process will result in an Action Item Report being created from the PDCD Manager when an Export from the PDA to the PDCD Manager is performed. When the PDA is operated wireless, the user will need to initiate the generation of the report from the PDCD Reports menu. When Cond Cd is chosen to be updated for an End Item Serial asset, this will result in an auto update of the End Item Serial asset with a history record being generated to document the change. The Record Action Item process contains a list box containing 'Actions' and a list box containing 'Cond Cds'. These list boxes are "customizable" by the user. To customize, locate the "action.txt" and or "cond_code.txt" files in the DPAS working directory. Open with notepad, and make the desired edits (removing or adding desired values). The values are downloaded to the PDA during each Import.

Record Action Item 10:54a ok

Bar Cd: N2110 Enter

Action: None

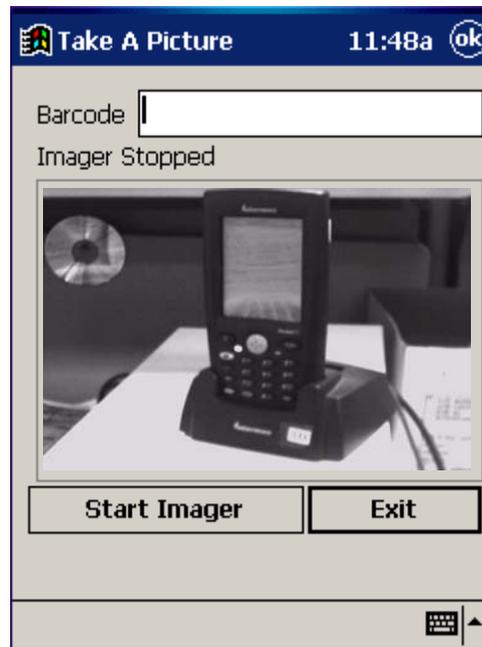
Desc:

Cond Cd:

Save Exit

Take A Picture

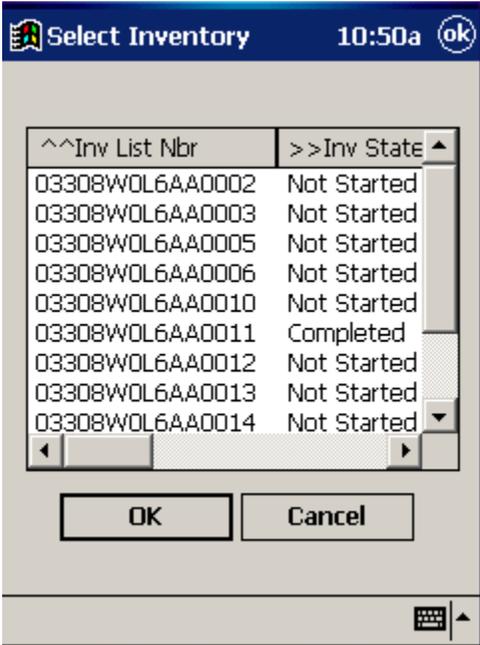
The Take A Picture process is used to take a gray scale picture of the asset. During the **Export Inventory** process, the graphic image will be copied to the designated local directory as defined in User Defaults. The Ref File Nm field in DPAS will be updated with the full path and name of the file to allow for display of the graphic from the End Item Serial Detail Inquiry process. The file name will be the Bar Cd. This process is only available with PDAs that contain an imager. If the PDA does not contain an imager, this menu selection will not be shown.



Select Inventory

When there is a need to temporarily halt an inventory, and change to a different inventory, use the **Select Inventory** process.

1. From the File menu in the Conduct Inventory process, tap **Select Inventory**. The current inventory will have an **Inv State** of **Active**. Those that were previously started, but not finished will have an **Inv State** of **Inactive**, and those that have not be started will have an **Inv State** of **Not Started**. Inventories that have been closed will have an **Inv State** of **Completed**. Inventories that have been completed cannot be re-opened.
2. Select the inventory desired by double tapping or by tapping once, and selecting **OK**.



Close Inventory

When the inventory has been completed, the inventory must be marked as closed on the PDA.

1. Tap **Close Inventory** from the Conduct Inventory File menu. If the inventory is not closed prior to exporting the data to the DPAS desktop using the PDCD Manager, the inventory will still show as **OS-Open Scanner** in DPAS and no Inventory Reconciliation Report will be generated.



NOTE:

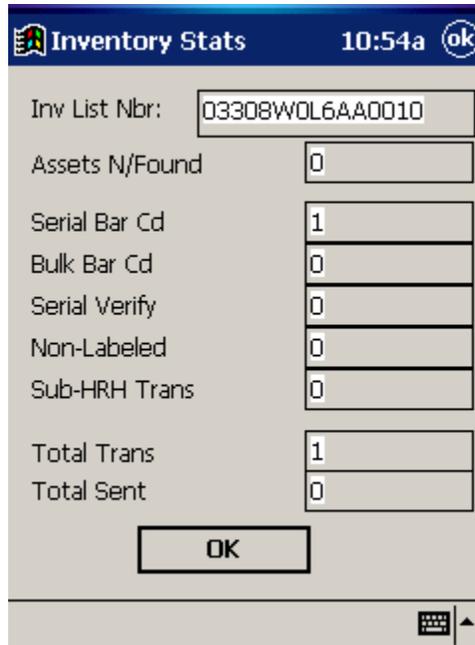
Once an inventory has been closed, it cannot be re-opened to scan additional assets.

The image displays two screenshots from a PDA application. The left screenshot shows the 'Inv Properties' screen with the following fields and values: Inv List Nbr: 03308WOL6AA0011, Inv Type Cd: SO, Actbl UIC: WOL6AA, UIC: WOL6AA, HRH Nbr: 5C000, Prop Type Cd: (empty), LIN: (empty) - (empty), Nbr of Inv Records: 1. The 'Mark Inv Complete' button is highlighted. The right screenshot shows a confirmation dialog box with the text 'Are you sure you wish to mark this inventory as completed?' and 'Yes' and 'No' buttons. The dialog box also displays the inventory ID '03308WOL6AA0011' and a radio button for 'Assets Scanned'.

2. Tap **Mark Inv Complete** to complete the action. When **Mark Inv Complete** is selected, you will receive a confirmation box.
3. Confirm by tapping **YES**. Selecting **CANCEL** or **NO** during the Close Inventory process will return you to the Conduct Inventory Processing Window without closing the inventory. When closed, the process returns to the DPAS Main Menu.

Inventory Stats

The user can view information about the current inventory by selecting **Inventory Stats** from the file menu. The displayed screen contains various counts about the current inventory, including the number of assets scanned, the number of assets not found, and the number of assets that were sent to the PDCD Manager application. If the PDCD is operating properly in Wireless Mode, then the values for the **Total Trans** and **Total Sent** fields should be equal. If the PDCD is operating in Batch Mode, then the **Total Sent** should be zero (because the transactions will eventually be sent as one batch file).



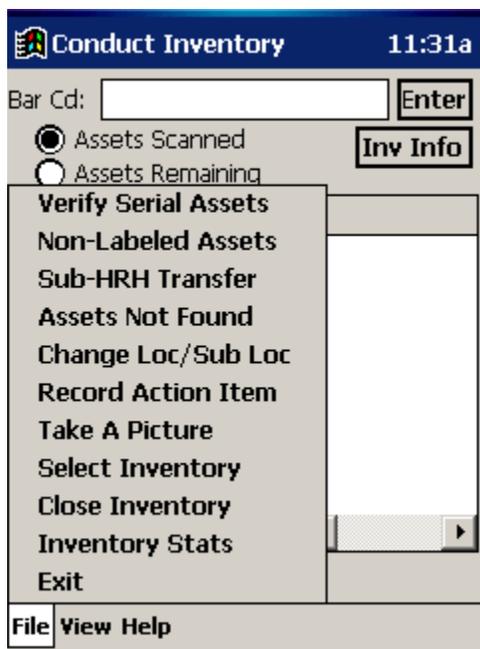
The screenshot shows a window titled "Inventory Stats" with a blue header bar. The header bar contains a small icon on the left, the title "Inventory Stats" in the center, and the time "10:54a" and an "ok" button on the right. Below the header, there is a list of fields with corresponding values in input boxes:

Inv List Nbr:	03308W0L6AA0010
Assets N/Found	0
Serial Bar Cd	1
Bulk Bar Cd	0
Serial Verify	0
Non-Labeled	0
Sub-HRH Trans	0
Total Trans	1
Total Sent	0

At the bottom of the window, there is an "OK" button and a small keyboard icon with an upward arrow.

Exit

Exit from the Conduct Inventory File menu will return you to the DPAS Main menu.



If more than one inventory has been downloaded, repeat steps to conduct inventories until all inventories have been downloaded. Once all inventories have been marked **Completed**, select **Exit** on this screen.

Export Closed Inventory(ies) From PDA

When all inventories have been closed, they can be exported to the host computer for subsequent processing into DPAS. When the inventory data has been processed up to DPAS, it sends a notice that the inventory reconciliation process is ready to be run. The reconciliation process is controlled by a chronological program called a **Cron** process. (Process is run every 5 minutes). The timed event will process all reconciliations that are ready to be run, producing a report for each inventory that can be viewed/printed from the **Print Reports > HRH Module**.

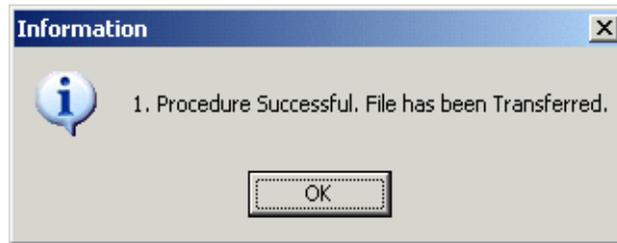
To export the inventory(ies):

1. Tap the **Export Inventory** icon from the Pocket DPAS Main Menu
2. Place the PDA in the docking station. If not all inventories have been marked completed, the process will display a caution message asking the user if they wish to continue. If **YES** is selected, the process will move to the Export Mode. If **NO** is selected, the process will return to the Main Menu without action.



3. From the PC, open the **PDCD Manager** and select **Import from PDCD** (File Menu or toolbar button).

When the inventory has been imported successfully, a message box will be displayed to indicate a successful import has occurred.



4. Click **OK**.

The PDCD inventory process is now complete.

If you recorded action items, an Action Items Report will be generated.

The Reconciliation Report will be available for viewing/printing from **Print Reports > Hand Receipt Module** once the Cron process is complete. If corrections to the inventory conducted using the PDCD are required, they must be performed on-line using the **Update Inventory** process.

