MIDAS

MOBILE INTEGRATED DATA ACQUISITION SYSTEM

INSTALLATION & USERS GUIDE

USDA Forest Service
Forest Inventory and Analysis

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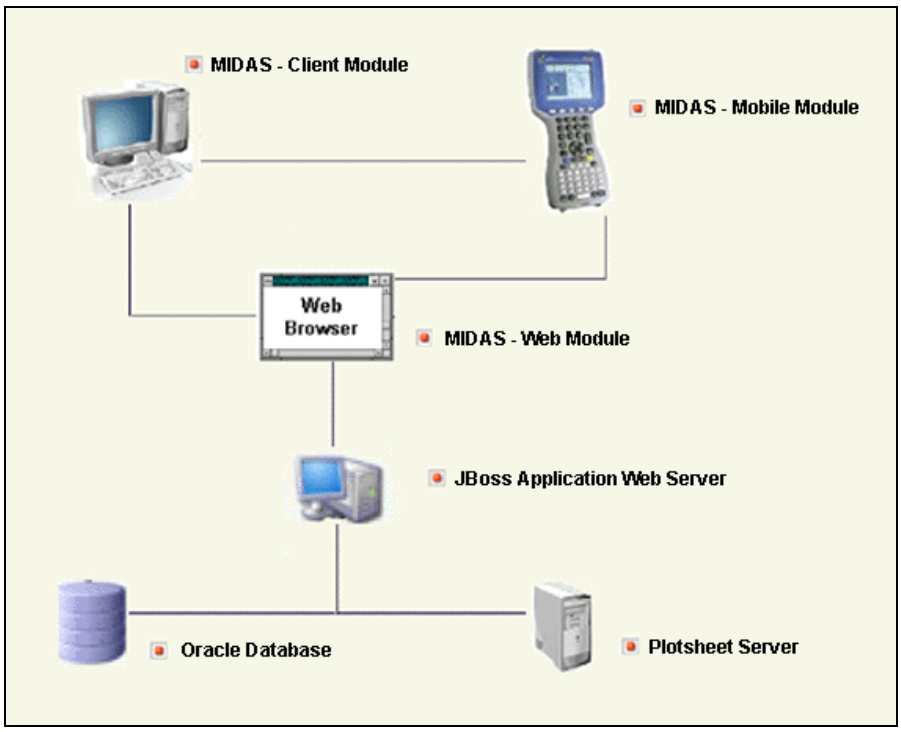
Introduction

Mobile Integrated Data Acquisition Management System (MIDAS) is an integrated web-client-mobile application developed with J2EE technologies to collect and process Forest Inventory and Analysis field data. The baseline system is a derivative of the field data management system developed and implemented in the Northern FIA region. Each region has contributed regional IT skills and technologies to extend and enhance this baseline system to include all of the regional and national field specifications.



The full suite of MIDAS tools provides crewmembers with most functions related to data collection. The following features, and many others, are available on the PC, the Portable Data Recorder (PDR), or the MIDAS intranet website:

- Setting up PC's and PDR's
- Program updates
- Crew access to historical information on plot to aid in data collection
- Collection, storage, and transmission of data
- Data edits in the field using a PDR or in the office using a PC
- Track plot progress from the field through QAQC and into the database

User Support

Direct any questions to your local MIDAS representative:

NRS Jay Solomakos
jsolomakos@fs.fed.us
651-649-5145

PNW Chuck Veneklase
cveneklase@fs.fed.us
503-808-2045

RMRS Mark Rubey
mrubey@fs.fed.us
801-625-5647

SRS Kelly Peterson
kpeterson01@fs.fed.us
865-862-2092

Website Login

Central to the MIDAS system is the MIDAS website that provides for a great deal of the functionality available in MIDAS, including but not limited to program installation and updates for the PC and PDR, acquiring plot history data, plot tracking, and transmission of completed plots to the storage database. The MIDAS website can be found at the following address:

http://199.131.115.1:8080/Midas/Main?action=Default

The MIDAS website is an *Intranet* site, and can only be accessed by PC's that are within the Forest Service firewall. It is recommended that you bookmark this site as you will be accessing it often.

If at any time while visiting the MIDAS website you receive a pop-up security message such as the one shown to the right, simply click ***Run*** to continue.

System Access Levels

For the security and protection of FIA data, all database functions are password protected. As such, all of the MIDAS website functions that connect to the database require the user to log in with their personal username and password. Each personal username will be defined with a specific access level. The four main levels of access to the website and database are:

- Level 1 – Field Crew
- Level 2 – Crew Leader
- Level 3 – Supervisor
- Level 4 – Administrator

Level 1 users only have database read access. Level 2, 3, and 4 users can update data stored in the database and this additional login provides the administrators of the system with the means to audit usage of the database. By default, all users recognized by the system are granted level 1 privileges. Only an administrator can increase a user's privileges to level 2, 3 or 4.

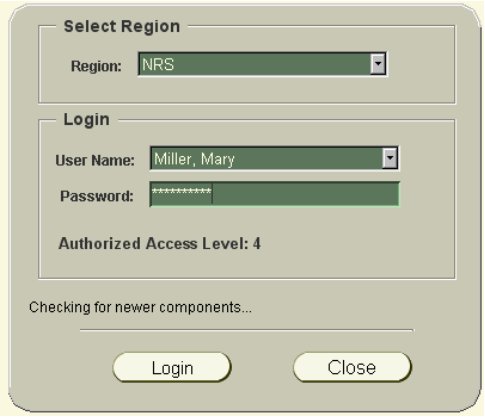
Logging In

All of the functions on the MIDAS web site that connect to the database require the user to log in with their personal username and password, as detailed in the following steps.

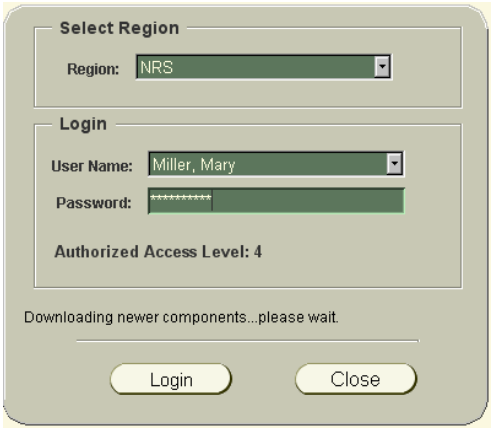
1. On the *MIDAS Welcome Screen*, click on the ***Log Into System*** link in the upper right-hand corner of the screen.
2. On the *User Login* screen, select a region from the ***Region*** drop-down box.

3. Once a region has been selected, select a user name from the ***User Name*** drop-down box. To avoid lengthy scrolling, the ***User Name*** drop-down box has been coded to allow for keystroke navigation … simply begin typing the last name of the desired employee to go directly to that alphabetical section of the user name list. Use the [***Esc***] or [***Backspace***] keys to reset the list if necessary.

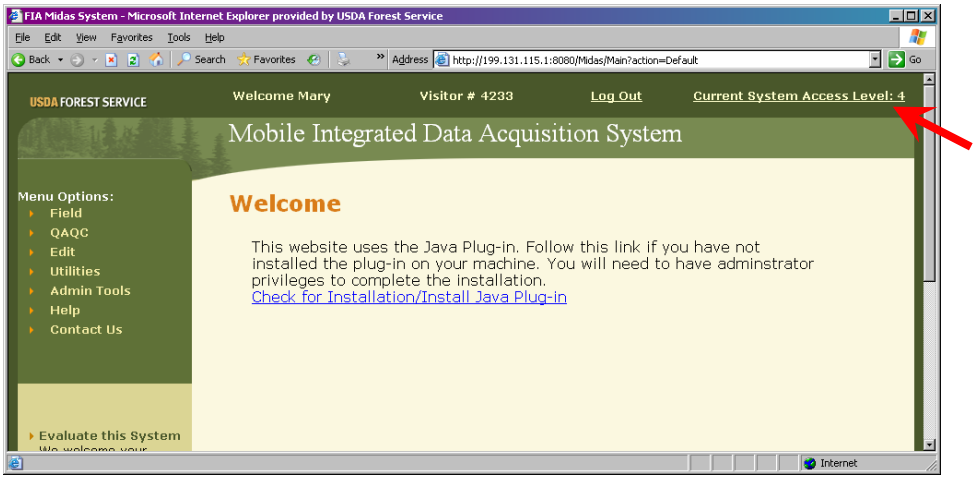
   Note that it may take a moment for the corresponding user name list to load once a region is selected, so the drop-down box may need to be reselected it if it has no list items.
4. By default, an automatic program update process will launch on login. To disable the automatic update process for a particular login session, uncheck the ***Download latest MIDAS components*** checbox … this may be useful for those accessing the website via a dial-up connection.
5. Enter a password in the ***Password*** box then either click the ***Login*** button or press the ***Enter*** key.
6. If the ***Download latest MIDAS components*** checbox was left checked, the automatic program update process will launch on login and a message indicating that MIDAS is checking for component updates will appear:



7. If new components are available, the message will then indicate that new components are being downloaded … please wait patiently for the download to complete.



8. Once the download is complete, the newest components (including configuration files, program files, and ActiveSync updates) should be installed and available on the PC … the Welcome Screen will then be presented, but the user's Current System Access Level will now be indicated where the Login link used to be in the upper right corner of the screen.

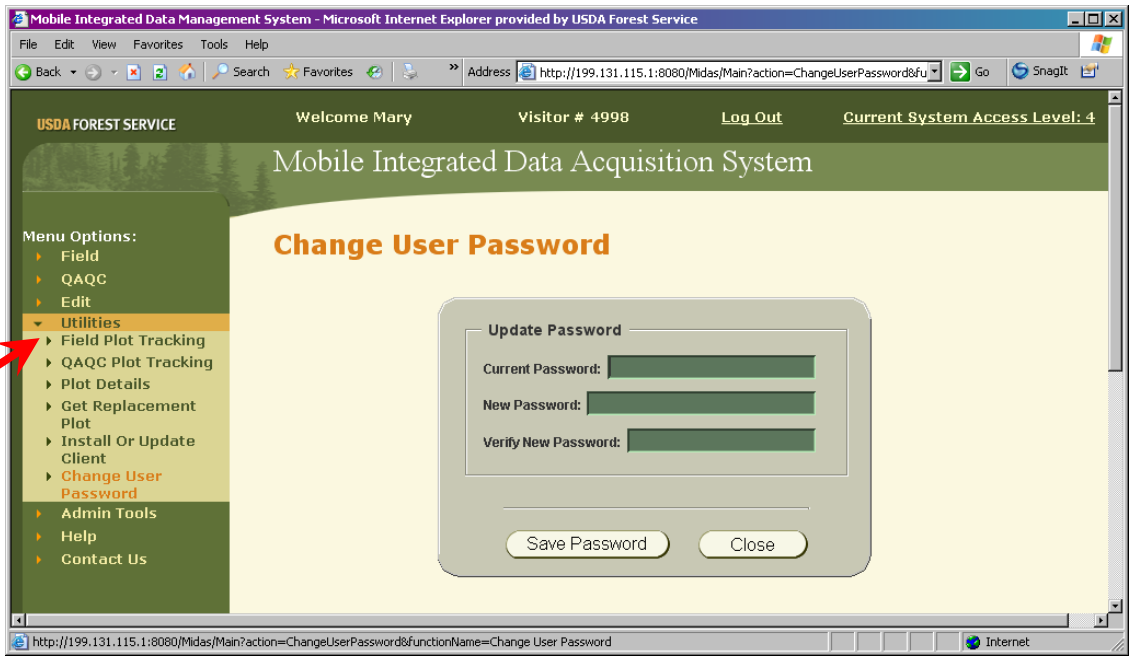


Changing User Password

New users will be given generic passwords, and are highly encouraged to enter their own unique password when they first log on to the system. Previous users of the system may use this feature to change their password as desired at any time.

To change a user password:

1. Once logged in on the MIDAS website, click on ***Utilities > Change User Password*** under *Menu Options* on the left side of the web page.



2. Enter the current and new passwords in the associated text boxes then click the ***Save Password*** button.

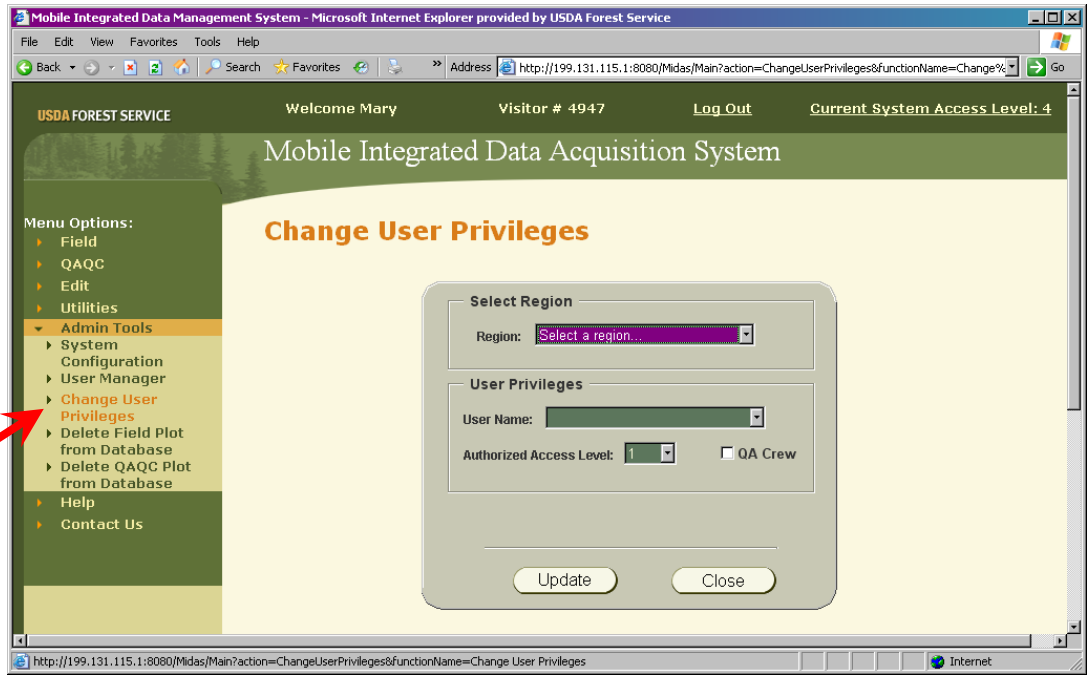
For previous users of the system who have forgotten their password, please contact a crew leader, supervisor, or administrator to have them modify the user profile and provide a new password within the *User Manager* tool.

Changing User Privileges

Each new user added to the system with the User manager is restricted to level 1 access. This feature allows administrators to change the access level of newly added users, as well as changing the access level for previous users of the system as needed. Only an administrator can increase a user's access level to level 2, 3 or 4.

To change user privileges:

1. Once logged in on the MIDAS website, click on ***Admin Tools > Change User Privileges*** under *Menu Options* on the left side of the web page

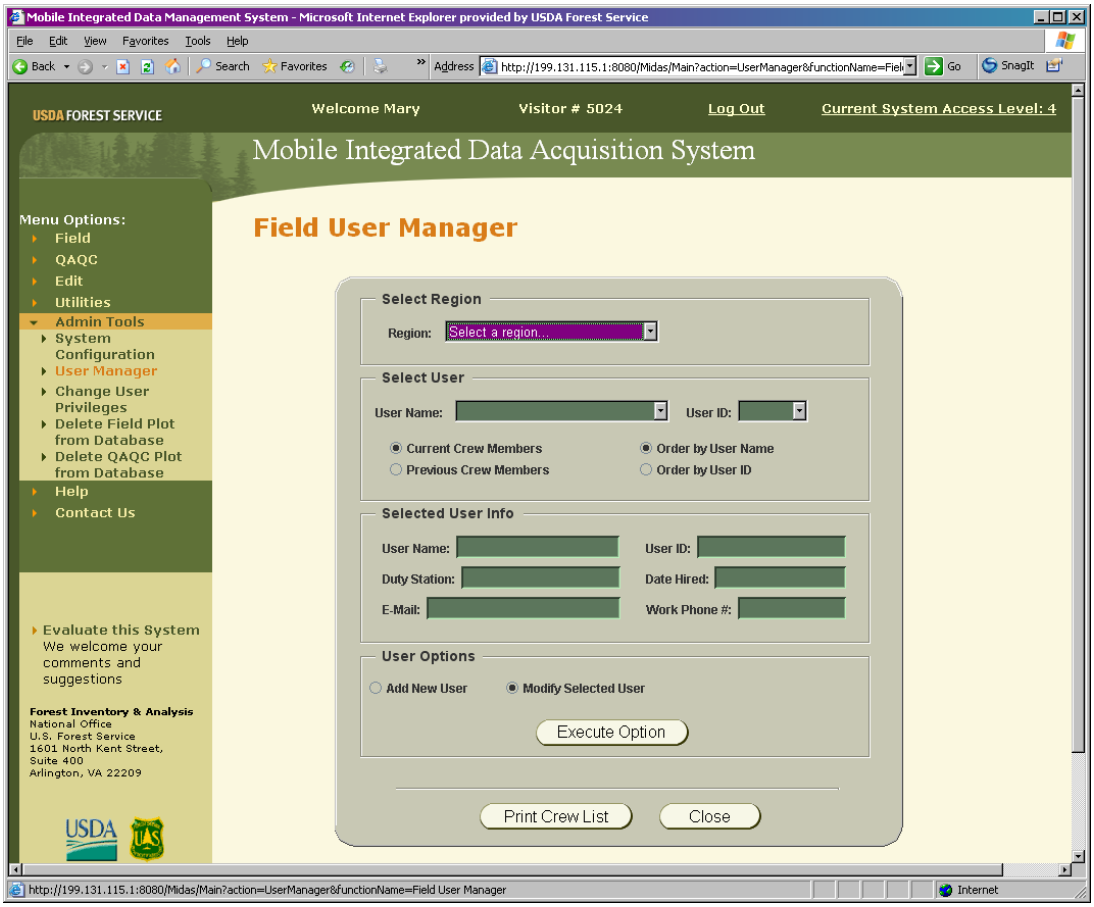


2. On the *Change User Privileges* screen, select a region from the ***Region*** drop-down box … selecting a region will automatically populate the corresponding user name list. Note that this auto population may take a few seconds.
3. Select a name from the ***User Name*** drop-down box … the user's current access level will appear in the ***Authorized Access Level*** box.
4. Select the user's new access level from the ***Authorized Access Level*** box.
5. If user selected is a QA crew, check the ***QA Crew*** check box.
6. Click the ***Update*** button.

User Manager

The ***User Manager*** is a tool found on the MIDAS website that enables crew leaders, supervisors, and administrators to add new users, modify existing users, or delete user profiles from the system.

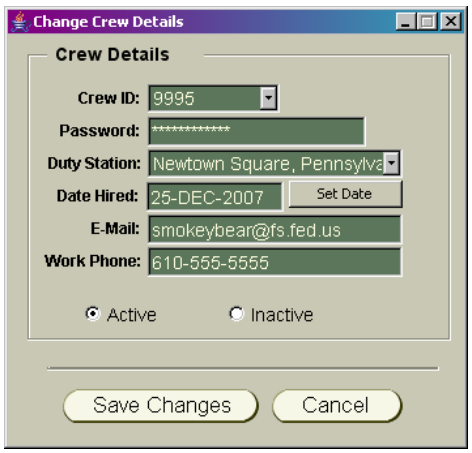
To open the *User Manager*, log on to the MIDAS website then click on ***Admin Tools > User Manager*** under *Menu Options* on the left side of the web page.



Modifying an Existing User Profile

1. On the *Field User Manager* screen, select a region from the ***Region*** drop-down box … selecting a region will automatically populate the corresponding user name list. Note that this auto population may take a few seconds.
2. Select the user's name from the ***User Name*** drop-down box. If the user's name is not known, their profile may also be accessed by selecting their crew number from the ***User ID*** drop-down box. Use the radio selection buttons below to customize the list of names and/or id's by selecting which users should be included and in what order they should be displayed.
3. Make sure the ***Modify Selected User*** option is selected in the *User Options* box, then click the ***Execute Option*** button.

4. In the *Change Crew Details* window, modify the selected user's information as necessary then click the ***Save Changes*** button.



5. Wait patiently while MIDAS updates the database … you will see a message at the bottom of the *Field User Manager* screen indicating that MIDAS is accessing the records.

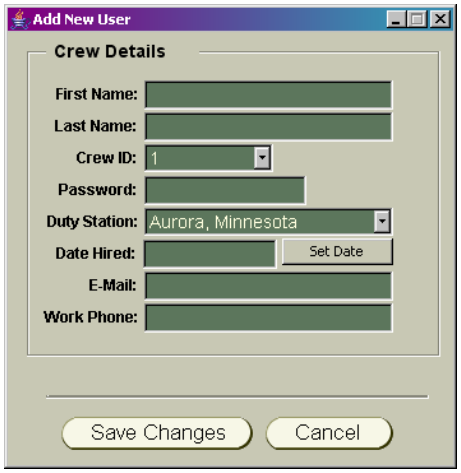
6. Once the update is complete, the user's updated information will be displayed in the *Field User Manager* screen.

Adding a New User Profile

1. On the *Field User Manager* screen, select a region from the ***Region*** drop-down box … selecting a region will automatically populate the corresponding user name list. Note that this auto population may take a few seconds.

2. Select the ***Add New User*** option in the *User Options* box, then click the ***Execute Option*** button.

3. In the *Add New User* window, enter the new user's information, then click the ***Save Changes*** button.



4. Wait patiently while MIDAS updates the database … you will see a message at the bottom of the *Field User Manager* screen indicating that MIDAS is accessing the records.

5. Once the update is complete, the user's updated information will be displayed in the *Field User Manager* screen.

Note that new users added to the system are restricted to only level 1 access. To change the access level for a user, see the *Changing User Privileges* section of this document.

Print a List of Crew Members

This feature will provide a hardcopy list of all crew members for a specific region, including details such as date of hire, duty station, email, and phone number.

1. On the *Field User Manager* screen, select a region from the ***Region*** drop-down box … selecting a region will automatically populate the corresponding user name list. Note that this auto population may take a few seconds.

2. In the *Select User* box, use the radio selection buttons below to customize the list by selecting which users should be included (current or previous crew members) and in what order they should be displayed (sorted by name or id).

   It is not necessary to select a name from the ***User Name*** drop-down box.

3. Click the ***Print Crew List*** button at the bottom of the *Field User Manager* screen.

Installation of MIDAS

The installation of MIDAS is designed to be a user self-install process via the MIDAS website:

http://199.131.115.1:8080/Midas/Main?action=Default

The MIDAS website is an *Intranet* site, and can only be accessed by PC's that are within the Forest Service firewall. It is recommended that this site be bookmarked as it will be accessed often.

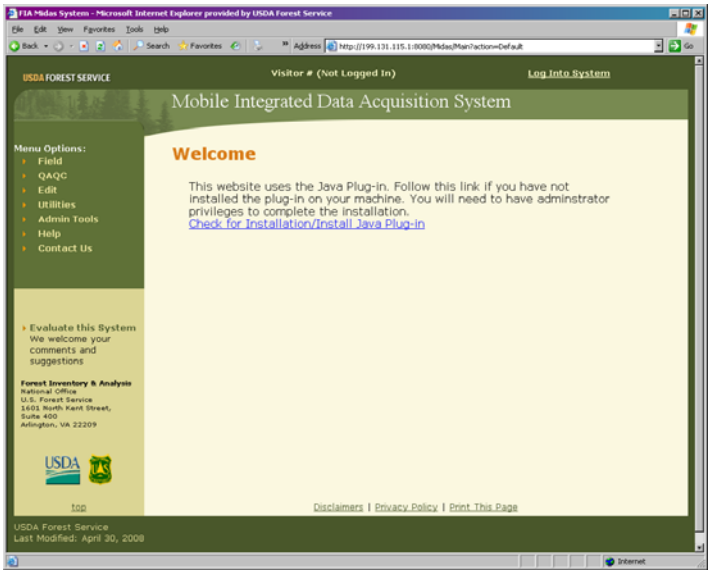
To install MIDAS, please follow the steps outlined chronologically below. Please note that a number of these steps require administrative permissions on your login account, so it is recommended that you use the *Promote Me* tool (http://gadgets.ds.fs.fed.us/EUTools/ad_promote.asp) to gain admin access prior to proceeding.

If at any time during the install process you receive a pop-up security message such as the one shown to the right, simply click ***Run*** to continue.

1. **Install the Java Plug-in**

   Note: ***Admin access required!***

   a. On the MIDAS Welcome screen, click on the ***Check for Installation / Install Java Plug-in*** link to begin the Java Plug-in installation.

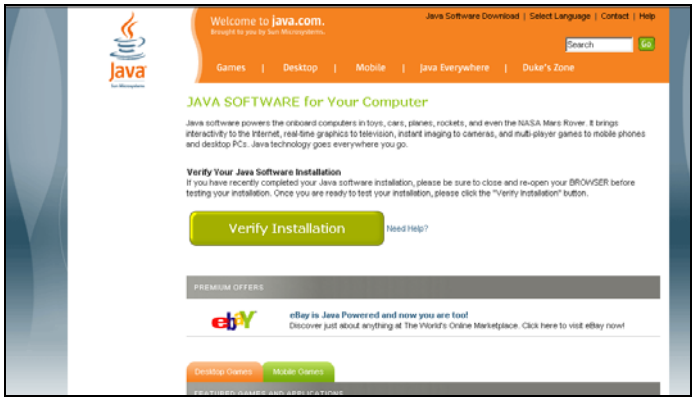


b. A Java download window will open … click the ***Download Now*** button.

c. A new window listing download details will appear … click the ***Begin Download*** button.

d. When prompted, accept the default functions … click either ***Next***, ***Yes***, or ***OK***.

e. Once the installation is complete, verify that the latest version of Java has been installed on your PC … click the ***Verify Installation*** button.



2. Log in to MIDAS

For a detailed description of how to log in to the MIDAS web site, please see ***Logging In*** in the ***Website Login*** section of this document.

3. Remove old versions of Microsoft ActiveSync

Note: ***Admin access required****!*

a. Disconnect all mobile devices from the PC … this would include Blackberry, Palm Pilot, IPAQ, and Allegro.

b. From the ***Start*** menu on the Desktop, select ***All Programs > Microsoft ActiveSync***

Note: If ***Microsoft ActiveSync*** is not listed under ***Start > All Programs***, it may not have been previously installed on the system … proceed directly to the next MIDAS Install step entitled "**Install Microsoft ActiveSync 4.5**".

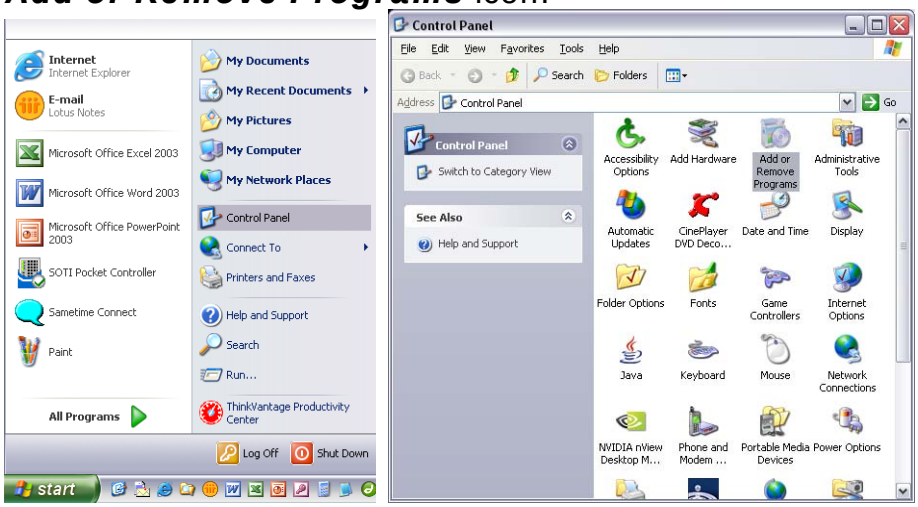
c. In the *ActiveSync* window, select ***Help > About Microsoft ActiveSync*** from the menu bar.

d. In the *About Microsoft ActiveSync* window, determine the version of the current ActiveSync program.

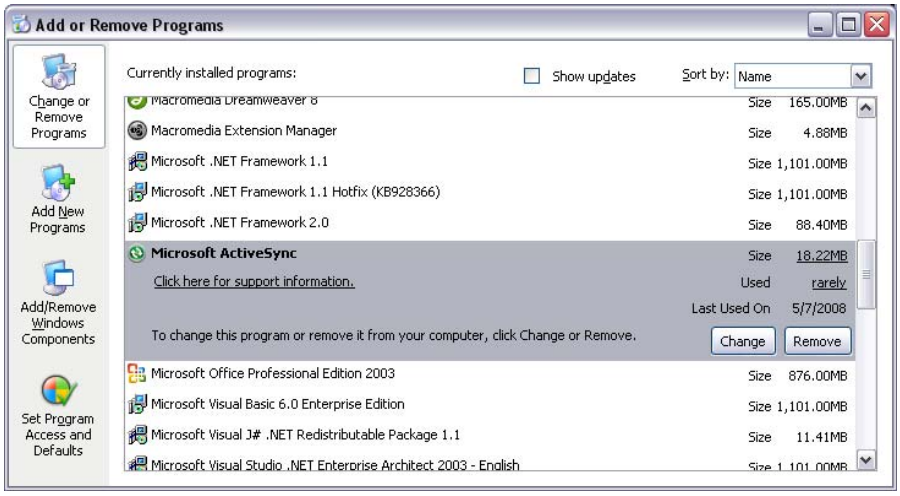
e. Click ***OK*** to close the About window, then close *Microsoft ActiveSync*.

f. If the version of the *ActiveSync* program is 4.5.0 or higher, you do not need to uninstall your current *ActiveSync* or install another version … proceed directly to the MIDAS Install step entitled: "Install MIDAS PC Client".

g. If the *ActiveSync* version is not 4.5.0 or higher, select ***Control Panel*** from the ***Start*** menu on the Desktop … then click on the ***Add or Remove Programs*** icon.



h. In the *Add or Remove Programs* window, scroll down and select ***Microsoft ActiveSync*** … then click the ***Remove*** button.



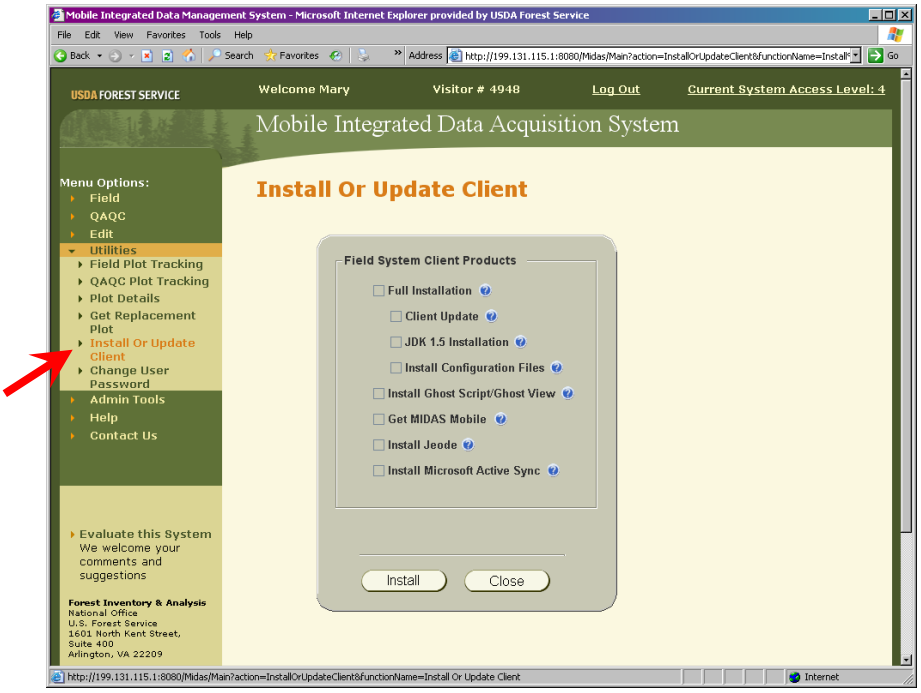
i. An *Add or Remove Programs* message will appear inquiring if the removal of *ActiveSync* is the desired action … click the ***Yes*** button.

j. When the *ActiveSync* window closes and the program removal is complete, close the *Add or Remove Programs* window.

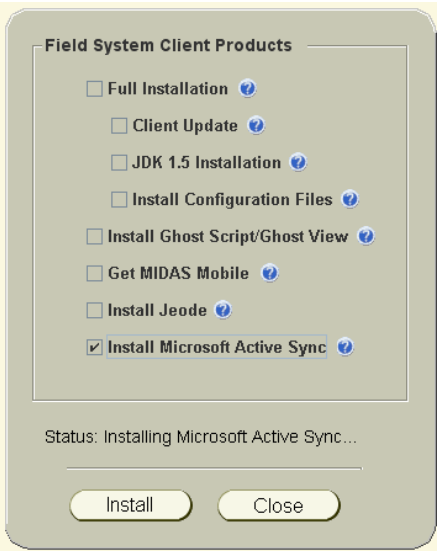
4. Install Microsoft ActiveSync 4.5

Note: ***Admin access required****!*

a. Once logged in on the MIDAS website, click on ***Utilities > Install or Update Client*** under *Menu Options* on the left side of the web page.



b. On the *Install or Update Client* page, click to check the ***Install Microsoft ActiveSync*** product … then click the ***Install*** button.

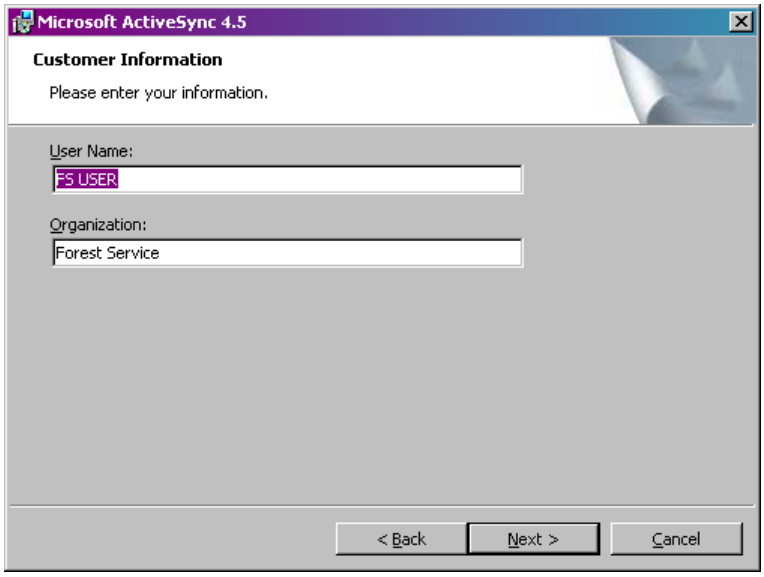


c. After clicking the ***Install*** button, a *Status* message will appear … please be patient for a few minutes while the install program is downloaded onto the PC.

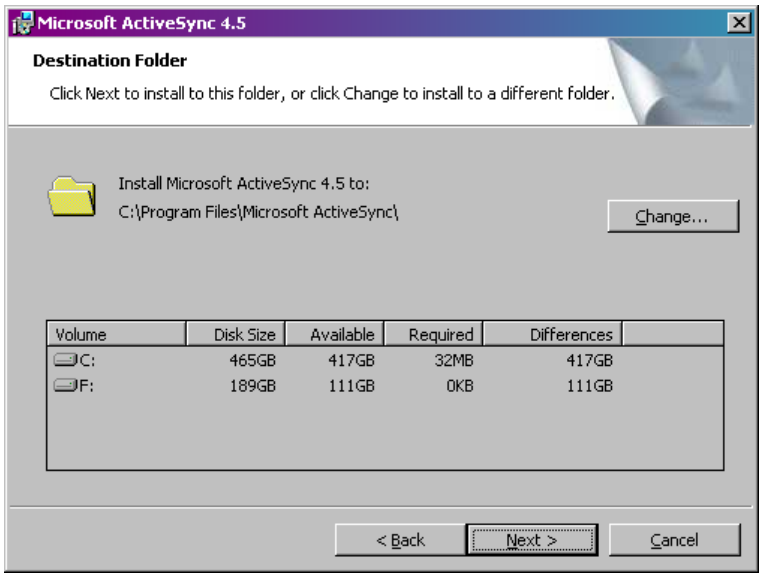
d. Once the install program is fully downloaded onto the PC, it will automatically launch and present a *Welcome* screen … click the ***Next*** button to begin the installation.

e. When presented with the License Agreement, select the option to accept the terms in the license agreement … then click the ***Next*** button.

f. A request for customer information will appear … click the ***Next*** button to accept the defaults.



g. Click the ***Next*** button to accept the default Destination Folder.



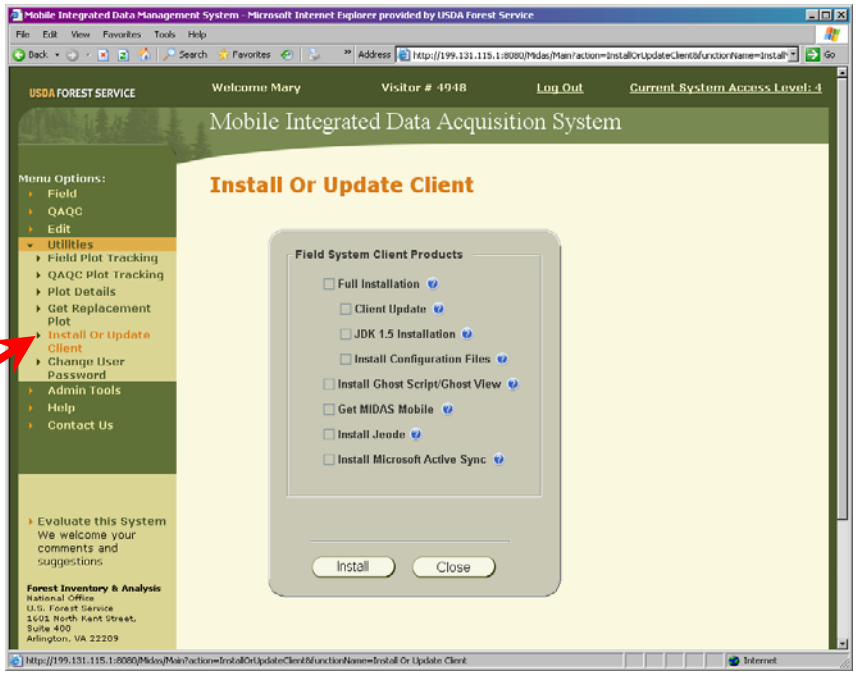
h. Click the ***Install*** button when the setup wizard indicates it is ready to install the program … it may take several minutes for the program to install.

i. A Setup Complete message will be displayed … click the ***Finish*** button.

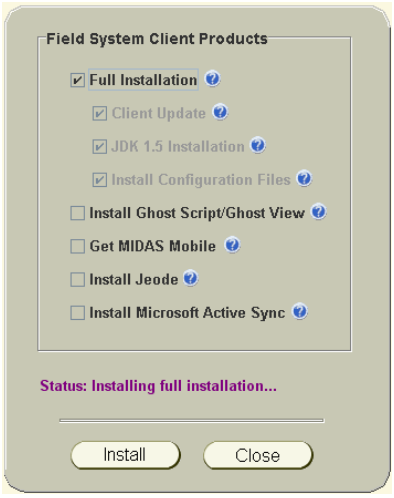
j. A *Finished* message will be displayed … click ***OK***.

5. Install MIDAS PC Client

a. Once logged in on the MIDAS website, click on ***Utilities > Install or Update Client*** under *Menu Options* on the left side of the web page.



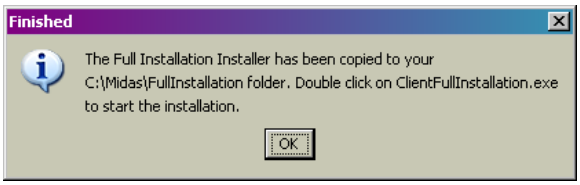
b. On the *Install or Update Client* page, click to check the ***Full Installation*** option … then click the ***Install*** button.



Note: Some options are included in the *Full Installation* option and will be deactivated upon selection of the *Full Installation* option, thus appearing as "grayed out" on the product list.

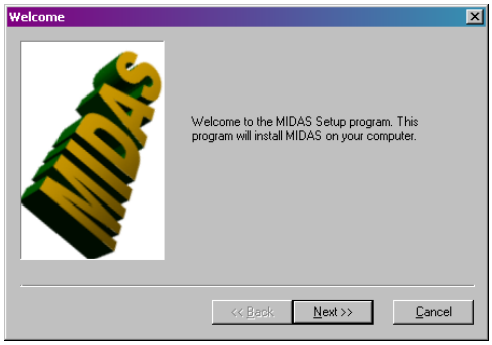
c. After clicking the ***Install*** button, a *Status* message will appear … please be patient for a few minutes while the install program is loaded onto the PC.

d. Once the install program is fully loaded onto the PC, a message will appear indicating that the install program has been saved to your PC … click ***OK***.

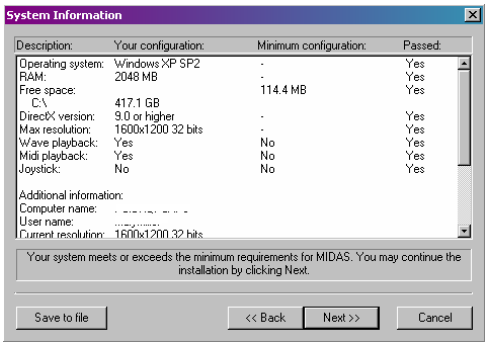


e. On the PC desktop, double-click on My Computer and navigate to the C:\Midas\FullInstallation folder.

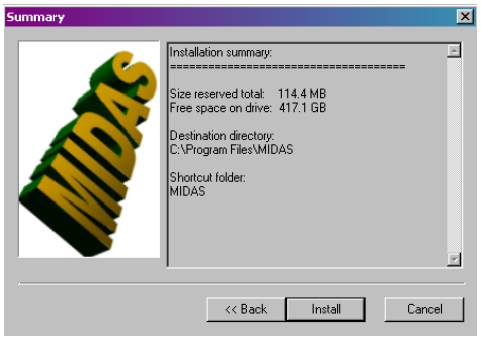
f. In the C:\Midas\FullInstallation folder, double-click on the ClientFullInstallation.exe file to launch the install … click the ***Next*** button on the install Welcome screen.



g. Click the ***Next*** button to confirm the system information.



h. Assuming the installation summary displays an adequate amount of available disk space, click the ***Install*** button to begin installation.



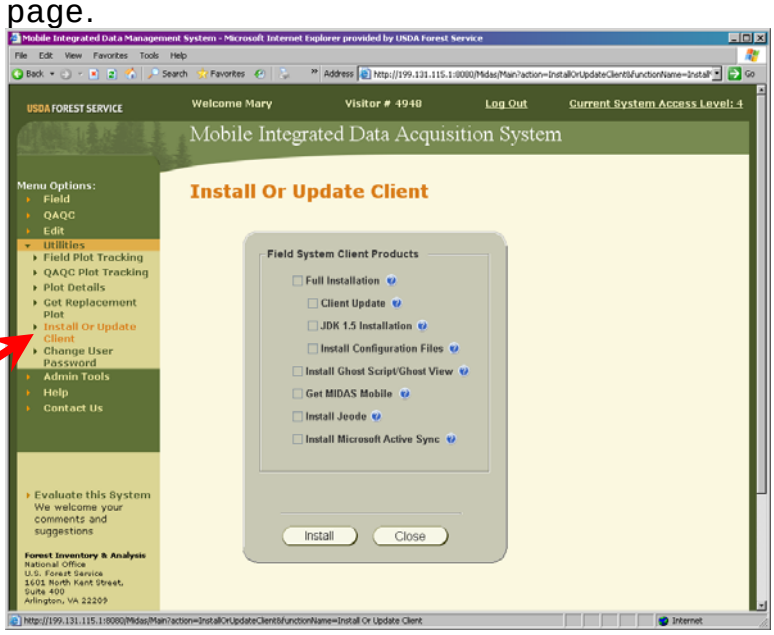
i. When installation is finished, two different messages will indicate that the install was successful and is complete … click the ***Finish*** and ***OK*** buttons to confirm.

j. There should now be two new icons on the desktop … ***MIDAS Control Panel*** and ***MIDAS Mobile***.

6. Install Ghost Script/Ghost View

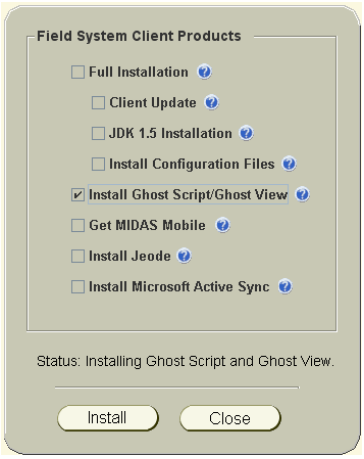
Note: ***Admin access required****!*

a. Once logged in on the MIDAS website, click on ***Utilities > Install or Update Client*** under *Menu Options* on the left side of the web page.

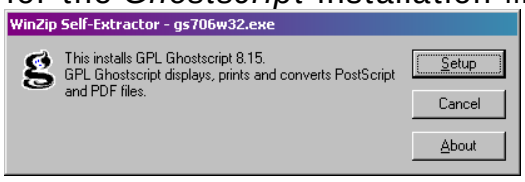


b. On the *Install or Update Client* page, click to check the ***Install Ghost Script/Ghost View*** option … then click the ***Install*** button.

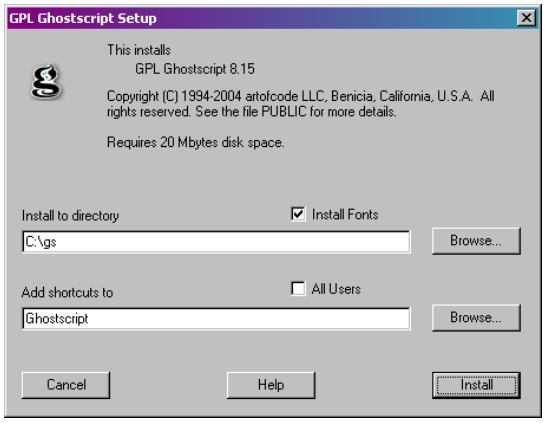
c. After clicking the ***Install*** button, a *Status* message will appear … please be patient for a few seconds while the install program is loaded onto the PC.



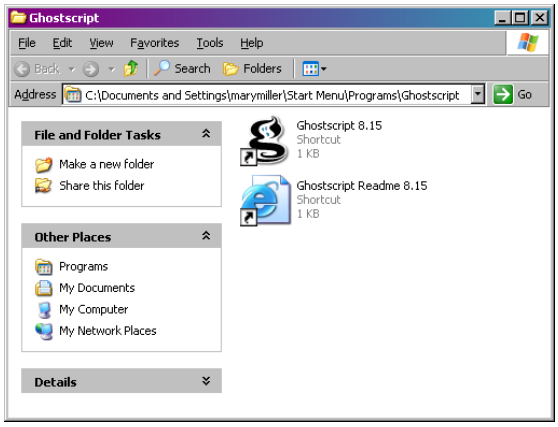
d. Once the install program is fully loaded onto the PC, it will automatically launch and present a *WinZip Self-Extractor* message for the *Ghostscript* installation … click the ***Setup*** button.



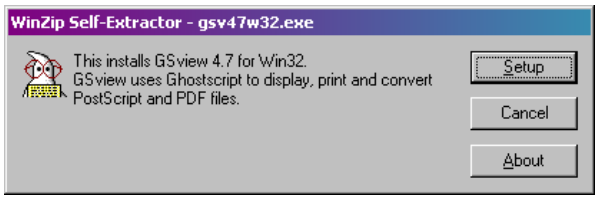
e. After the install files are extracted, a *Ghostscript Setup* window will appear … click the ***Install*** button to accept all defaults and begin the installation.



f. When the *Ghostscript* installation is complete, a File Explorer window will open to display the contents of the new ***Ghostscript*** folder … close the window.



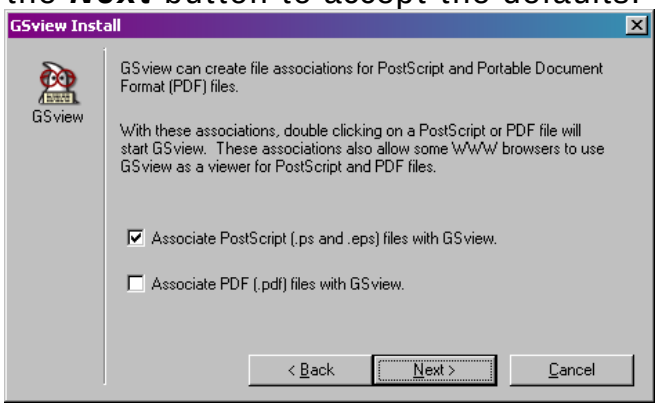
g. Immediately following the completion of the *Ghostscript* installation, the *GSview* installation will automatically launch and present a *WinZip Self-Extractor* message … click the ***Setup*** button.



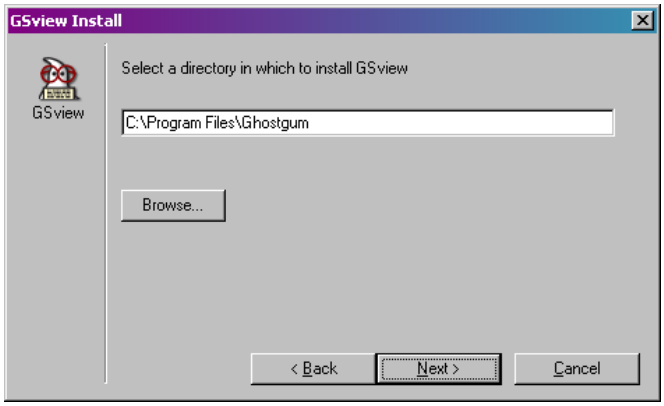
h. After the install files are extracted, a *GSView Install* window will appear, displaying install requirements … click the ***Next*** button.

i. Click the ***Next*** button when presented with the *GSview* copyright notice.

j. When asked to select which files to associate with *GSView*, click the ***Next*** button to accept the defaults.

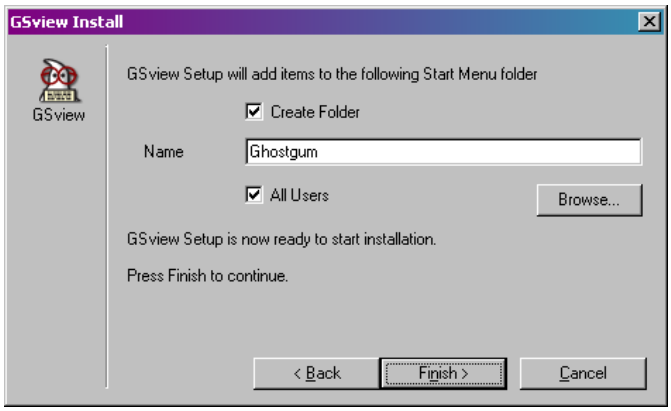


k. Click ***Next*** to accept the default install directory.

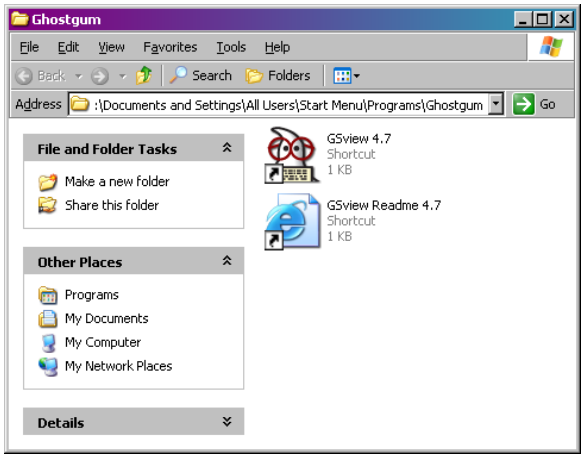


l. The default install directory does not exist … click ***Next*** to create the new directory.

m. The *GSview* install will present defaults for the Start Menu … click ***Finish*** to accept the defaults.



n. When the *GSview* installation is complete, a File Explorer window will open to display the contents of the new ***Ghostgum*** folder … close the window.



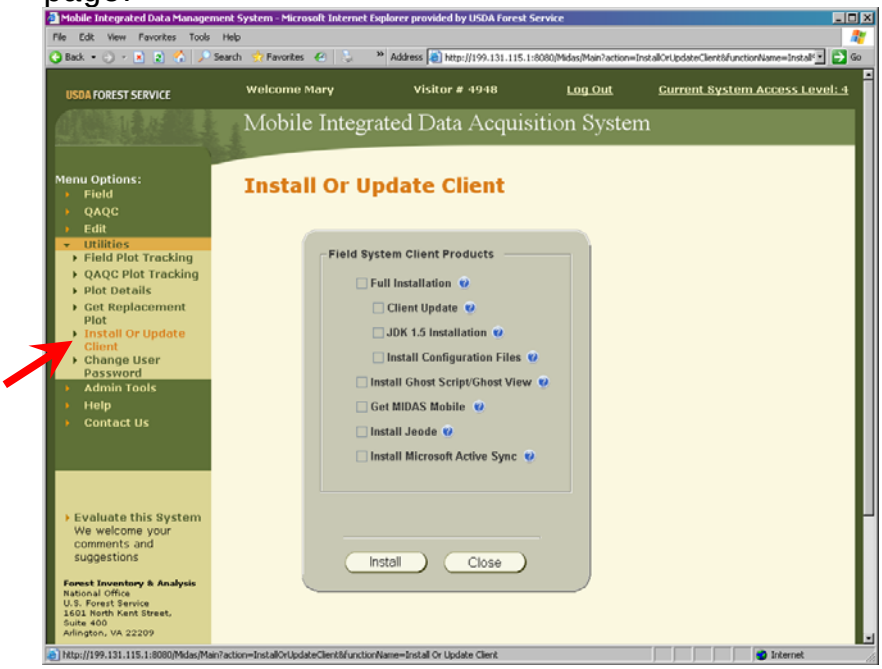
o. When the installation is finished, two different messages will indicate that the install was successful and is complete … click the ***Exit*** and ***OK*** buttons to confirm.

7. Install Joede JVM (Java Virtual Machine)

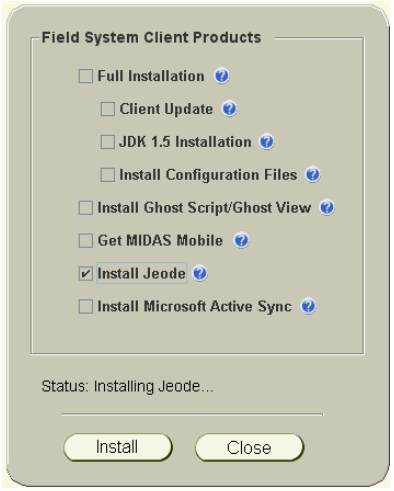
Note: ***Admin access required****!*

a. If not already connected, establish a connection between the PDR and PC via ActiveSync … if you do not know how to connect via ActiveSync, please refer to the section of this guide entitled "Establishing an ActiveSync Connection".

b. Once logged in on the MIDAS website, click on ***Utilities > Install or Update Client*** under *Menu Options* on the left side of the web page.

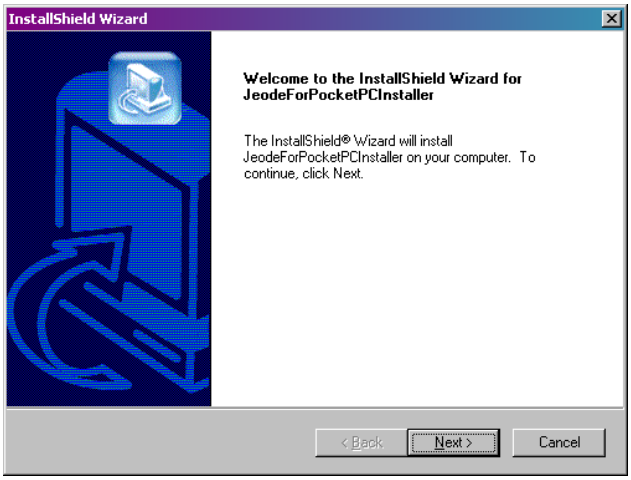


c. On the *Install or Update Client* page, click to check the ***Install Jeode*** option … then click the ***Install*** button.



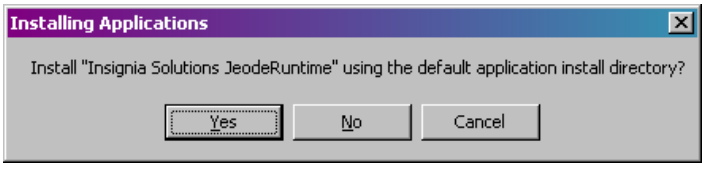
d. After clicking the ***Install*** button, a *Status* message will appear … please be patient for a few seconds while the install program is loaded onto the PC.

e. Once the install program is fully loaded onto the PC, it will automatically launch and present a *Welcome* screen … click the ***Next*** button.

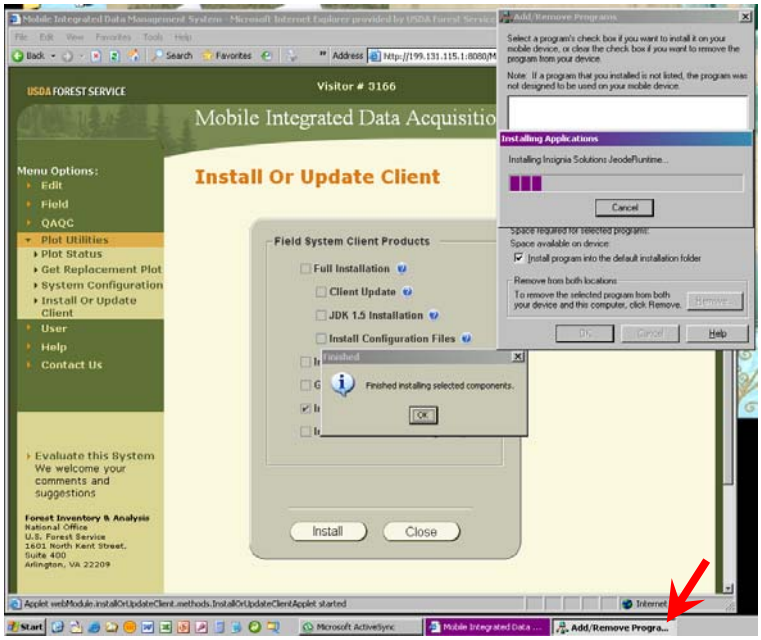


f. Click the ***Yes*** button to accept the License Agreement.

g. Click the ***Yes*** button to install to the default directory.



h. If a MIDAS completion message appears before the Jeode install completes, it *may* send the Jeode window to the back … if this occurs, click the ***OK*** button in the Finished message box, then click on ***Add/Remove Programs*** in the task bar at the bottom of your desktop.



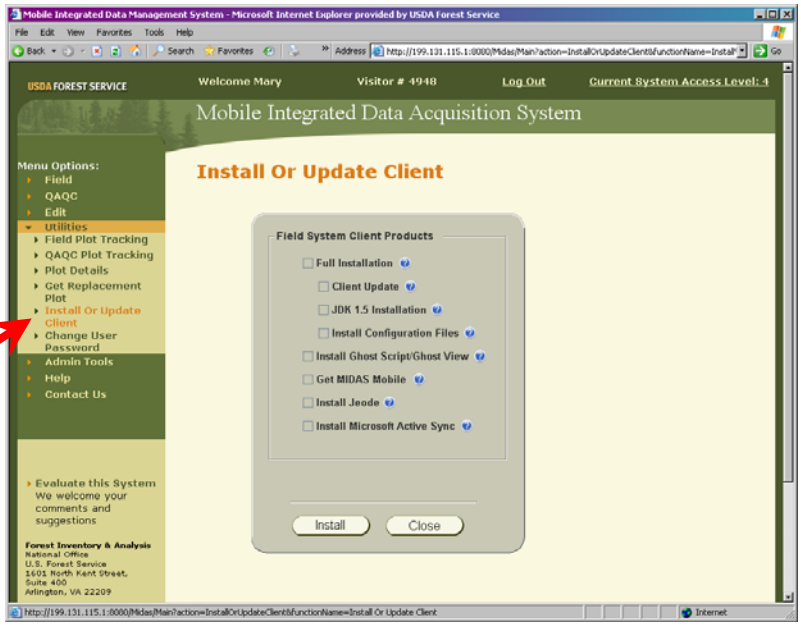
i. When the installation is finished, a message will appear indicating that the download was complete and directing attention to the PDR for further direction … click the ***OK*** button to confirm.

j. On the PDR, a message may appear indicating that version is unsupported … click ***Yes*** to continue with the installation.

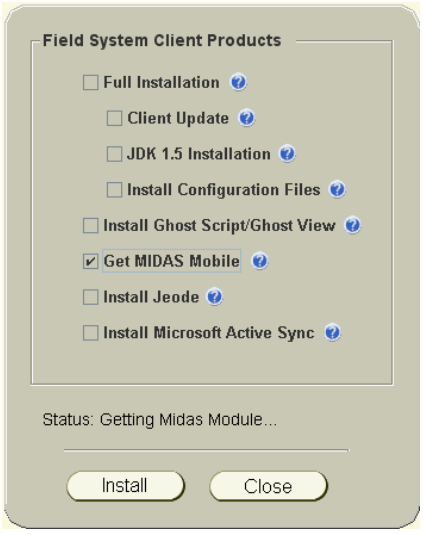
k. Once the installation on the PDR is complete, select ***Start > Programs > Utilities > Save System***.

8. Install MIDAS PDR Application

a. Once logged in on the MIDAS website, click on ***Utilities > Install or Update Client*** under *Menu Options* on the left side of the web page.



b. On the *Install or Update Client* page, click to check the ***Get MIDAS Mobile*** option … then click the ***Install*** button.



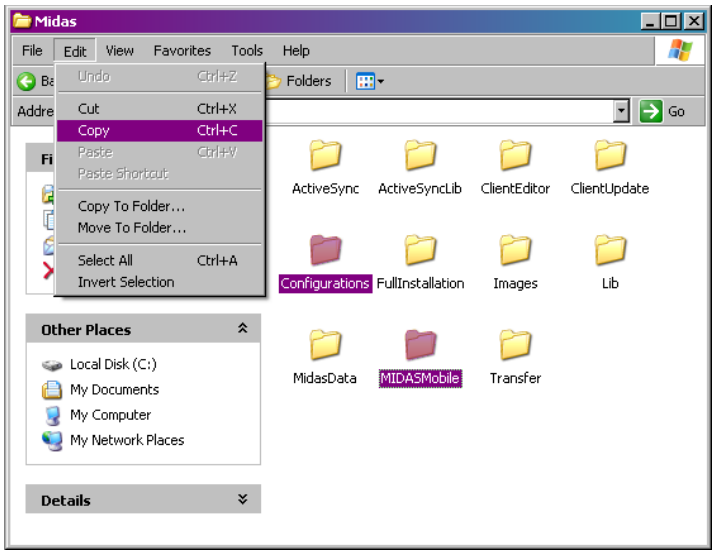
c. After clicking the ***Install*** button, a *Status* message will appear … please be patient for a few seconds while the install program is loaded onto the PC.

d. A *Finished* message will appear … click ***OK***.

e. *Right*-click on the ***START*** menu button and select ***Explore***.

f. Navigate to the *C:\Midas* folder.

g. In the *C:\Midas* window, hold the CTRL key while clicking to select the ***MIDASMobile*** and ***Configurations*** folders … then select ***Copy*** from the ***Edit*** menu.

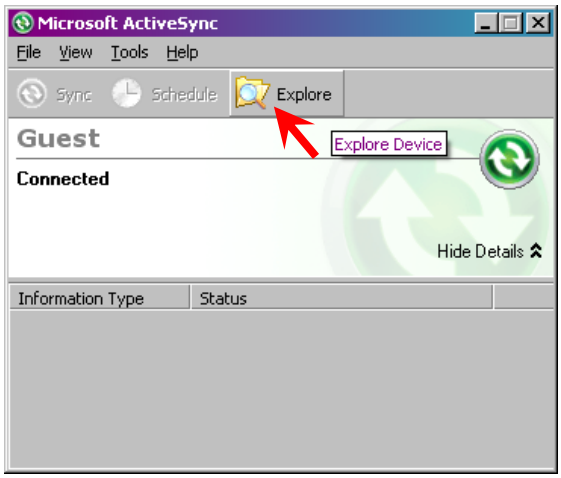


h. Minimize the *C:\Midas* window.

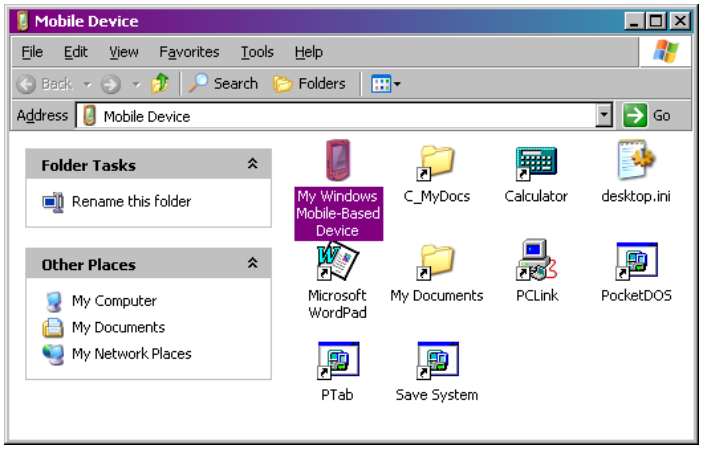
i. If not already connected, establish a connection between the PDR and PC via ActiveSync … if you do not know how to connect via ActiveSync, please refer to the section of this guide entitled "Establishing an ActiveSync Connection".

j. If the *ActiveSync* window is not already open, select ***Programs > Microsoft ActiveSync*** from the ***START*** menu to open the ActiveSync window.

k. In the *ActiveSync* window, click the ***Explore*** button.



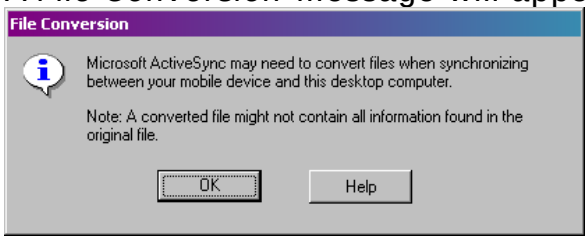
l. A *Mobile Device* window will open … double-click on the ***My Windows Mobile-Based Device*** icon.



m. In the *My Windows Mobile-Based Device* window, double-click on the ***\C_Drive*** folder then select ***New Folder*** from the ***File*** menu … type ***Midas*** to name the new folder.

n. In the *C_Drive* window, double-click on the new ***\Midas*** folder … then select ***Paste*** from the ***Edit*** menu.

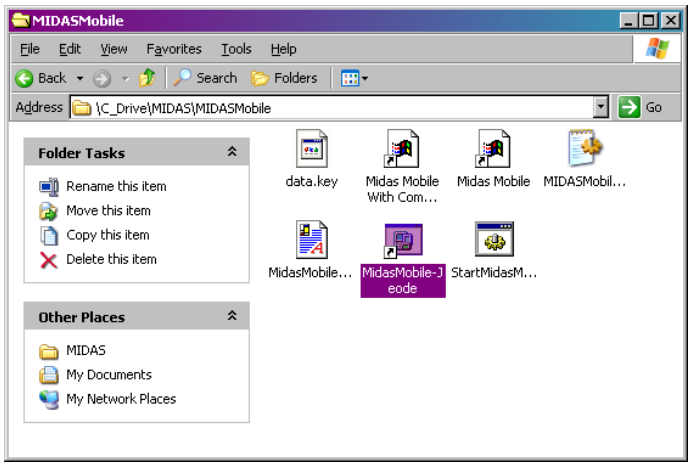
o. A *File Conversion* message will appear … click ***OK***.



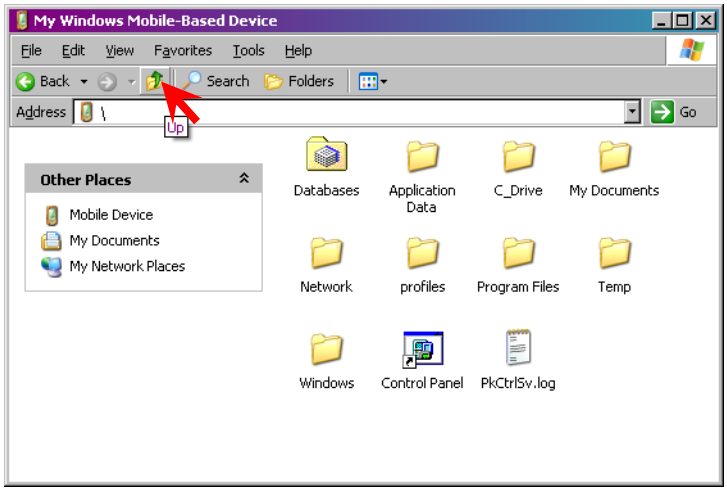
p. The ***MIDASMobile*** and ***Configurations*** folders should now appear in the ***\C_Drive\Midas*** folder.

q. Double-click on the ***MidasMobile*** folder.

r. Click once to highlight the ***MidasMobile-Jeode*** file … then select ***Copy*** from the ***Edit*** menu.



s. In the *Mobile Device* window,
click the Up button to return to the ***\C_Drive\Midas*** folder
… then click the ***Up*** button to return to the ***\C_Drive*** folder
… then click the ***Up*** button again to return to the
My Windows Mobile-Based Device folder.



t. In the ***My Windows Mobile-Based Device*** folder, double-click on the ***Windows*** folder … then double-click on the ***StartUp*** folder.

u. In the *Startup* folder, select ***Paste*** from the ***Edit*** menu.

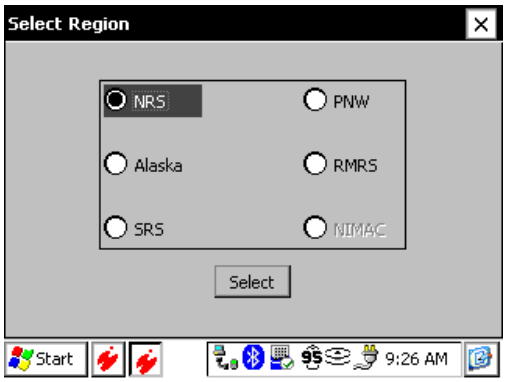
v. Close the *Mobile Device* window.

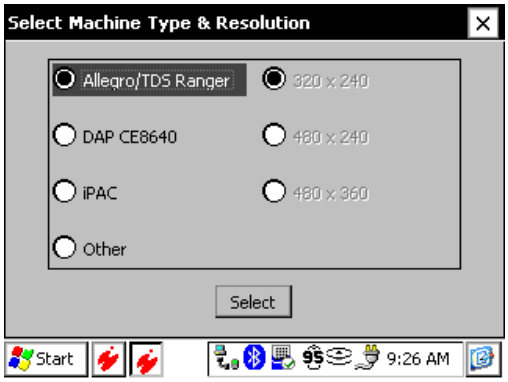
w. On the PDR, select ***Start > Programs > Utilities > Save System***.

x. Press and hold the PDR's ***On/Off*** key until the screen flashes… the MIDAS PDR application will automatically open.

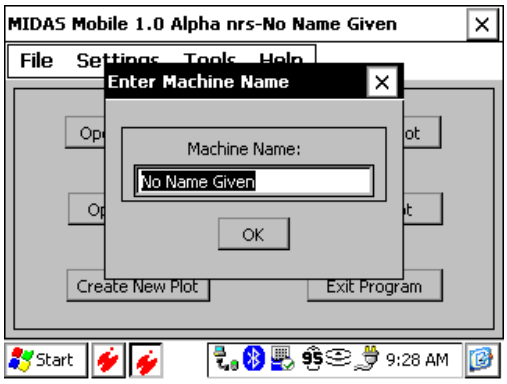
Note: If you have not previously installed the Joede JVM on the PDR, you will get an EVM error and the MIDAS program will not launch. To remove the error and allow the MIDAS program to launch properly, please refer to the section of this guide entitled "Install Joede JVM (Java Virtual Machine)" to install the Joede JVM.

y. A few selections will be requested the first time that the MIDAS PDR application is launched … select the appropriate region and machine type as requested then click the ***Select*** button





and provide a machine name, if desired, then click ***OK***.



Note that these selections will be stored as future defaults, but may be changed at any time using the ***Settings*** menu on the menu bar at the top of the MIDAS PDR screen.

Updating MIDAS

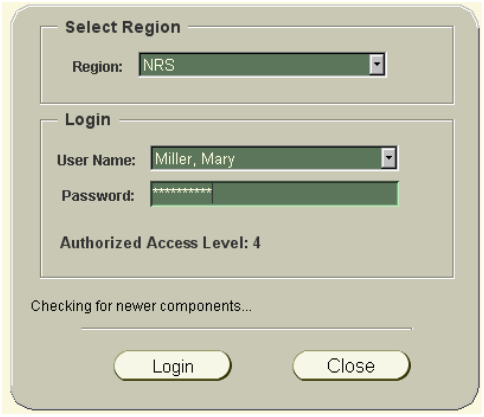
Routine maintenance of MIDAS will result in program updates. It is good practice to update both the MIDAS PC client and the MIDAS PDR mobile application on occasion to ensure the most up-to-date edits are being performed on the data.

Updating the PC Client

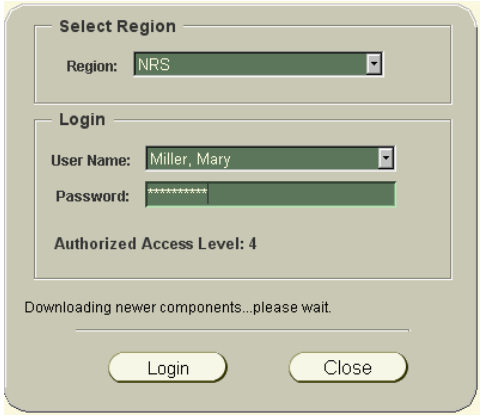
Automatic Update of the PC Client

The MIDAS system has been designed to automatically check the PC Client to determine if it requires an update and to automatically download and install the update if necessary. Unless the user deliberately unchecks the ***Download latest MIDAS components*** checkbox on the login screen to disable the update for a particular login session, the automatic update is initiated when the user logs in to the MIDAS website.

Upon login, a message indicating that MIDAS is checking for component updates will appear:



If new components are available, the message will indicate that new components are being downloaded … please wait patiently for the download to complete.

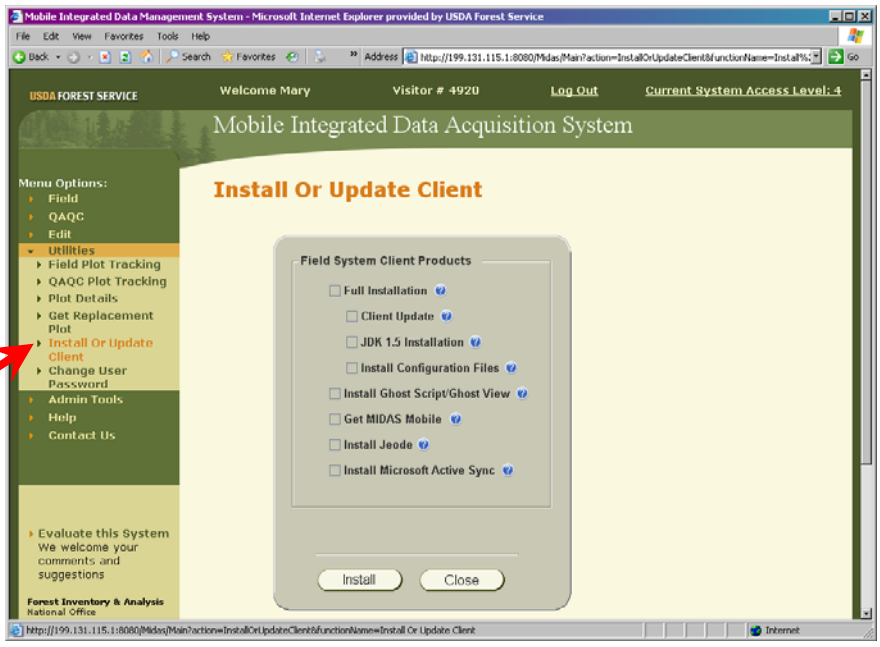


Once the download is complete, the newest components should be installed and available on the PC.

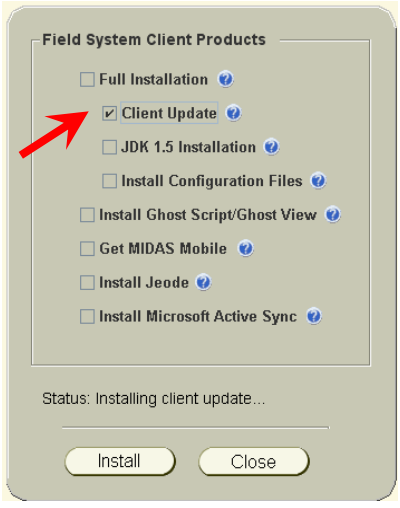
Manual Update of the PC Client

There should be no need to manually update the PC Client, however, the following process is available if necessary. Please note that the preferred and recommended method of updating the PC Client is via the automated process.

1. Once logged in on the MIDAS website, click on ***Utilities > Install or Update Client*** under *Menu Options* on the left side of the web page.

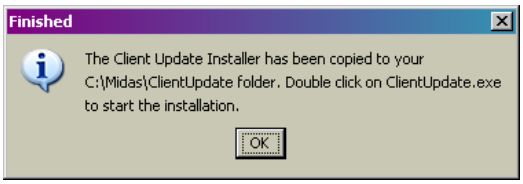


2. On the *Install or Update Client* page, click to check the ***Client Update*** option … then click the ***Install*** button.



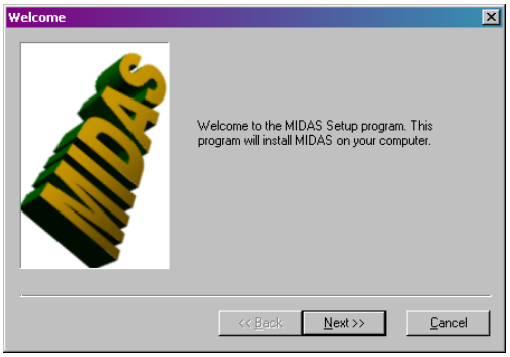
3. After clicking the ***Install*** button, a *Status* message will appear … please be patient for a few minutes while the install program is loaded onto the PC.

4. Once the install program is fully loaded onto the PC, a message will appear indicating that the install program has been saved to your PC … click ***OK***.

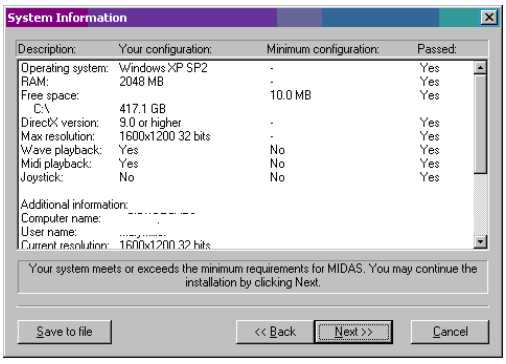


5. On the PC desktop, double-click on My Computer and navigate to the C:\Midas\ClientUpdate folder.

6. In the C:\Midas\ClientUpdate folder, double-click on the ClientUpdate.exe file to launch the install … click the ***Next*** button on the install W*elcome* screen.

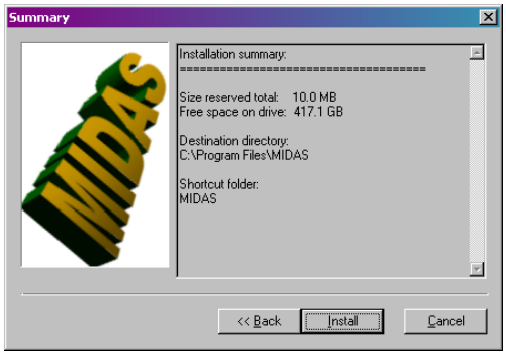


7. Click the ***Next*** button to confirm the system information.



8. Assuming the installation summary displays an adequate amount of available disk space, click the ***Install*** button to begin installation.

9. When installation is finished, two messages will be presented indicating that the install was successful and is complete … click the ***Finish*** and ***OK*** buttons to confirm.



Updating the PDR Application

Automatic Update of the PDR Application

The MIDAS system has been designed to automatically check the PDR application to determine if it requires an update and to automatically download

and install the update if necessary. The automatic update is initiated when the user clicks either the ***Send Plots to Mobile Device*** button or the ***Get Plots from Mobile Device*** button found on the MIDAS Control Panel on the PC. The primary purpose of these buttons is to send plot history files to the PDR application and to retrieve completed plots from the PDR application. Note that it is preferred that the PDR Application (MIDAS Mobile) be closed prior to clicking either of these buttons. For a more detailed discussion of the functions and use of these buttons, please see the topics in this document entitled "Send Plots to the PDR" in the *Preparing for Data Collection* section and/or "Get Completed Plots from the PDR" in the *Processing Completed Plots* section.

(Semi-Manual) Update of the PDR Application

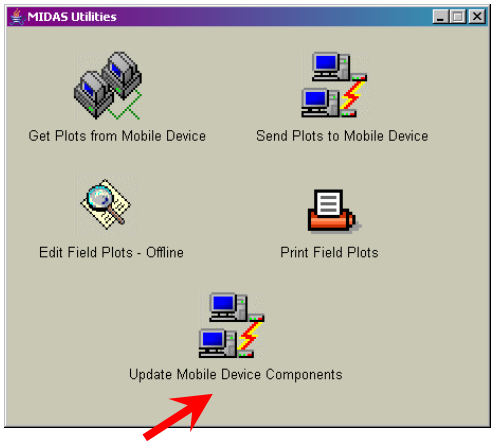
The manual update of the PDR application is not really a manual task … it is really just a manual initiation of an automated task. To truly have a manual update would involve copying a number of files to a number of different directories, which can be a bit complicated. Instead, MIDAS offers an automated copy of required files that is available with the click of a button. To manually update the application components on the PDR, the following process is available:

1. On the PDR, close the current MIDAS Mobile application by returning to the main Plot Task screen and either clicking the ***Exit Program*** button or selecting ***Exit*** from the ***File*** menu.

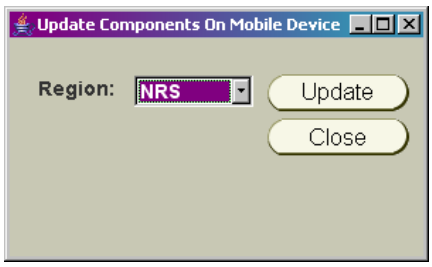
   Note: Return to the main Plot Task screen from within an open plot file by navigating to the main menu screen via the [***F4***] key or the ***Close*** button on the menu bar at the bottom of any data entry screen, then clicking the ***Exit Plot*** button.

2. If not already connected, establish a connection between the PDR and PC via ActiveSync … if you do not know how to connect via ActiveSync, please refer to the section of this guide entitled "Establishing an ActiveSync Connection".

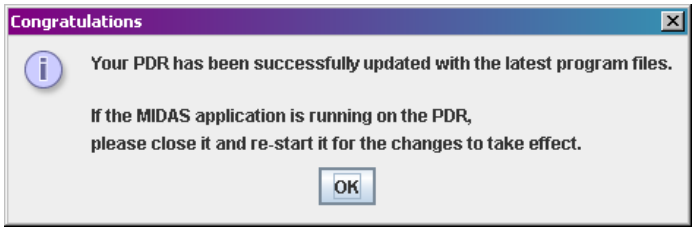
3. Click the ***Update Mobile Device Components*** button found on the MIDAS Control Panel on the PC to initiate the automated copy of required files to the Mobile Device.



4. An *Update* screen will appear … select the appropriate ***Region*** then click the ***Update*** button.



5. When the update has been completed, a message will be presented indicating that the update was successful … click the ***OK*** button.



6. If, for some reason, the MIDAS Mobile application running on the PDR was not closed prior to executing the update … it is necessary to close and restart the application.

7. Click the ***Close*** button to close the *Update* screen.

Preparing for Data Collection

Prior to collecting data, there are a number of items required by MIDAS that provide information on what and how data should be collected, as well as basic plot identification information. The establishment of these items, namely configuration files and historical files, prior to visiting a field plot is crucial to the data collection process.

Configuration Builder

The MIDAS web site is host to a tool known as the Configuration Builder, which is used to create and deploy system configuration files. The configuration files contain the list of attributes to be collected in a state/panel, legal ranges and lists of legal values for each attribute, help information for each attribute, and a variety of other information. The configuration files are used throughout the MIDAS system to layout the data entry screens, run validations, and load/extract data from the database.

A single configuration actually consists of 5 separate files that together define what and how the data will be collected:

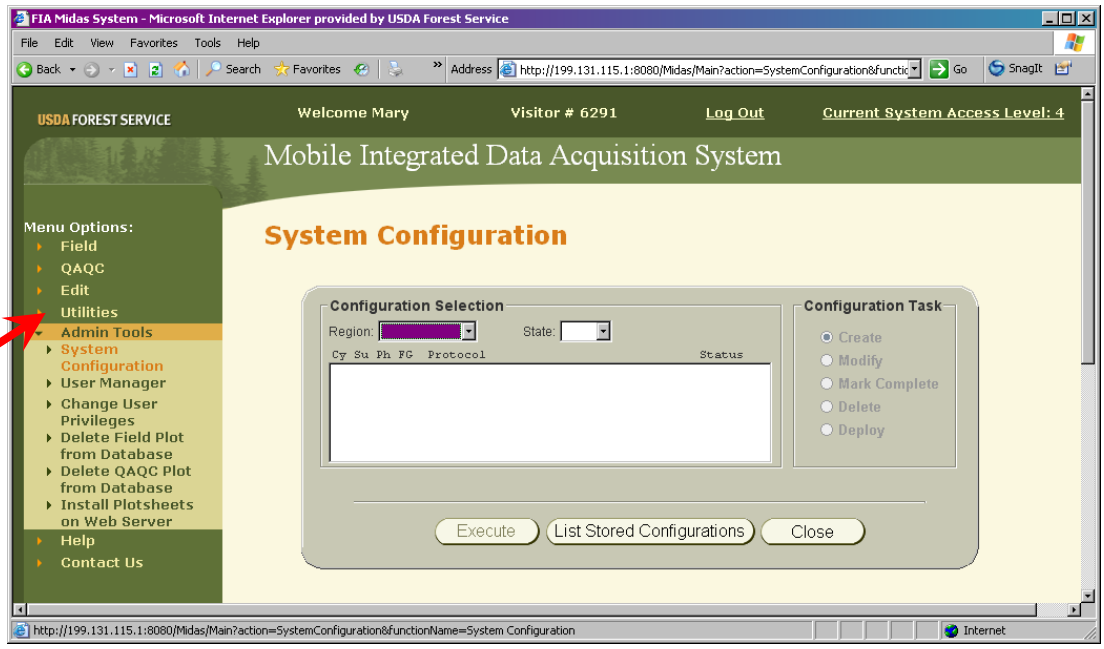
.Legals	Defines what values/codes are legal for each field
.Prompts	Defines the field name that will be displayed and on which screen it will be displayed
.Help	Provides a description of legal values/codes for use in displaying help messages
.FieldGuideDescription	Provides detailed field guide descriptions for use in displaying help messages
.StateUnitSpecies	Defines what species are valid for each state unit

Each state will have its own unique configuration for each version of the field guide. The configurations are further divided by data type, such as P2 or P3. There may also be additional configurations defined for collecting data that varies from our normal data collection, such as for special study issues. In order to collect data, the correct configuration must be loaded on the PDR in order to properly define what must be collected … the configuration must coordinate with the specific data that is to be collected, such as P2 data in Maryland using Field Guide 4.0.

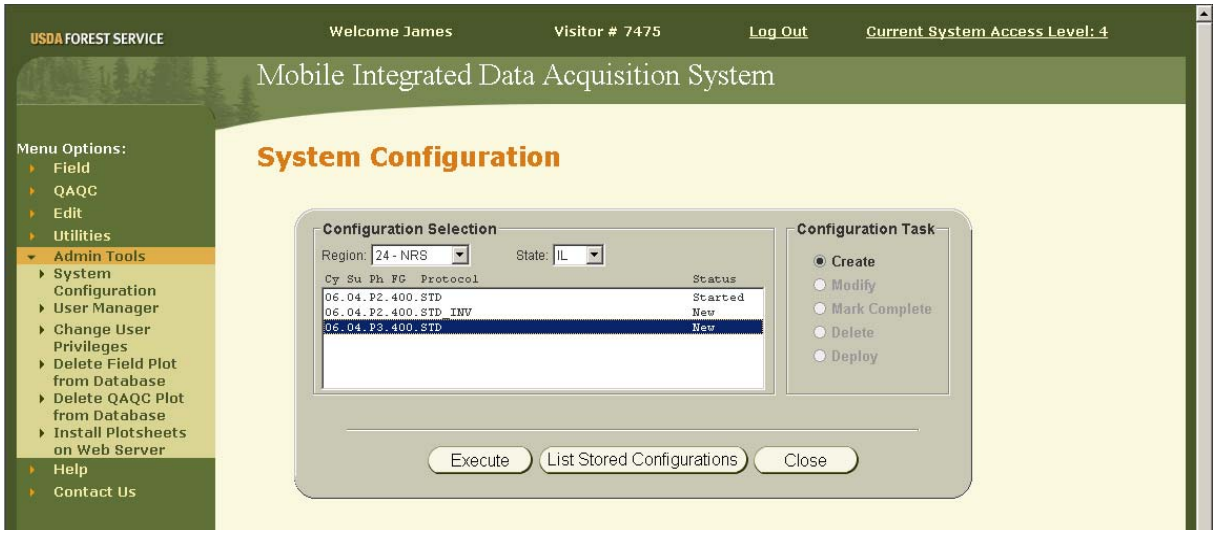
Creating/Editing Configuration Files

The creation of new or editing of existing configurations is performed on the MIDAS website and is limited to users with an access level of 4.

1. Once logged in on the MIDAS website, click on ***Admin Tools > System Configuration*** under *Menu Options* on the left side of the web page.



2. On the *System Configuration* screen, select a region from the ***Region*** drop-down box, then select a state from the ***State*** drop-down box. … selecting a region and state will trigger the automatic population of the configuration list with all known configurations for that state. Note that this auto population may take a few seconds.



A specific naming convention is used for the configuration listing: *[cycle].[subcycle].[phase].[fieldguide version].[protocol description]*

3. Click to highlight the desired configuration from the list, noting the following with regard to the *Status* designation of each available configuration:

- *New*
  A status of *New* indicates what basically amounts to a blank template … a base configuration is available and awaiting modification to reflect the specific collection needs for the region. A *New* configuration will be offered by the system administrator when a set of selected plots become available and ready for collection.

- *Modified*
  A status of *Modified* indicates that modifications to the configuration are in progress. A configuration that is in a state of modification is inaccessible to field crew and cannot be deployed for use, thus it will not be downloaded to the user via the MIDAS automated update utility. A configuration with a status of *Modified* can only be accessed by level 4 users until it has been marked complete.

- *Complete*
  Once modifications on a configuration are finished, it can be marked as *Complete*. Configurations with a status of *Complete* are available to all users for deployment and will be downloaded to the user via the MIDAS automated update utility.

4. Depending on the *Status* of the selected configuration, all available tasks will be enabled in the *Configuration Tasks* box … click to select the desired task.

   Create

   The *Create* task will be available if a *New* configuration is selected and will, as the names suggest, allow for the creation of a new configuration.

   Modify

   The *Modify* task will be available for configurations with a status of *Started* for which modifications have already begun and will allow for the continuation of modifications. The *Modify* task is also available for configurations with a status of *Complete* and will allow for changes or corrections to be made to a previously completed configuration.

   Mark Complete

   The *Mark Complete* task will be available for configurations with a status of *Started* for which modifications have been completed and will allow for the configuration to be deployed either manually or automatically to field crew.

   Delete

   The *Delete* task will be available for configurations with a status of either *Started* or *Complete* and will allow for removal of the configuration from the MIDAS system.

Deploy

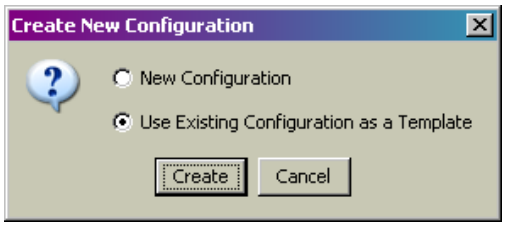
The *Deploy* task is available for configurations with a status of *Complete* and will allow for the manual deployment of the configuration to the user's PC or mobile device. A manual deployment should not be necessary most of the time as completed configurations will be automatically deployed to the user as part of the MIDAS automatic update process.

5. Click the ***Execute*** button to begin the selected task.

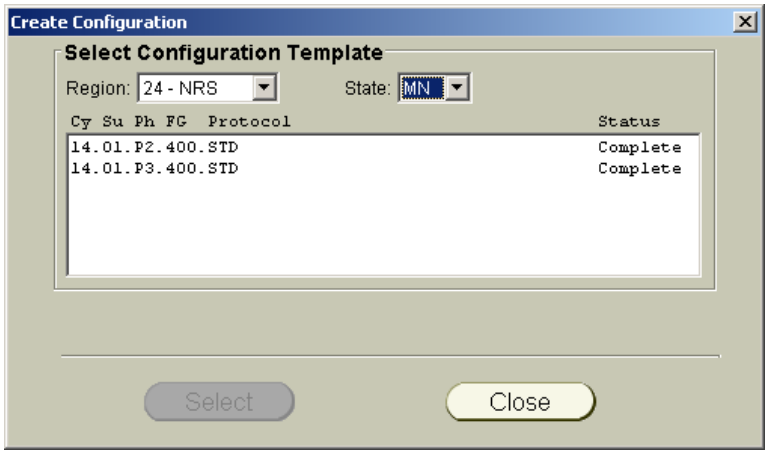
Note: The remaining instructions will focus on the procedures that follow the selection of either the *Create* or *Modify* task.

6. If opting to *Create* a new configuration:

   - A pop-up message will prompt for user input as to the method of creating the new configuration … select the option to ***Use Existing configuration as a Template*** and click the ***Create*** button.



   - A window will then appear that allows for the selection of an existing configuration to copy. Select the appropriate *Region* and *State*, then click to highlight the desired configuration … click the ***Select*** button.

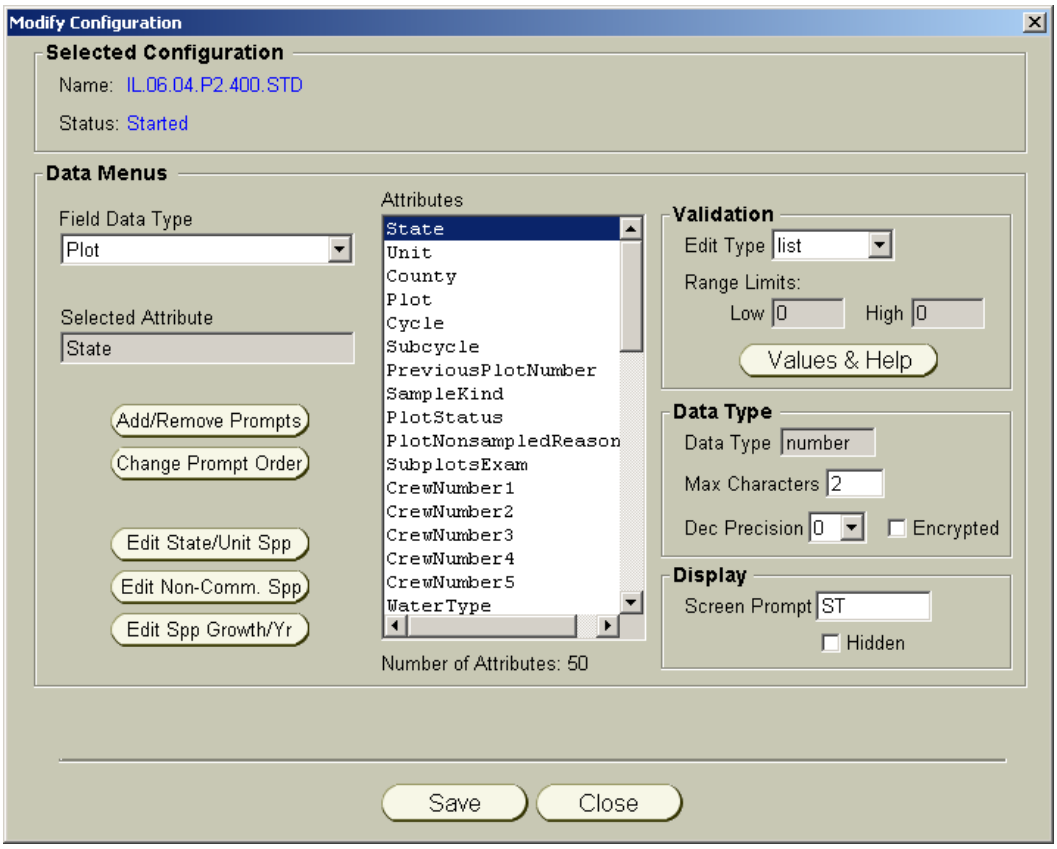


7. A *Modify Configuration* screen will open.

   If the *Modify* task was selected, this will be the first screen that opens.

   If the *Create* task was selected, the information from the previously selected template configuration will be contained here under a new name

representing the current configuration and, at a minimum, the State, Unit, County, Cycle, Subcycle, Lat, Lon, and Elevation will need to be changed to reflect the new configuration … other fields may require adjustment as well.



8. In the *Modify Configuration* screen, click to highlight a specific data attribute in the *Attributes* box then proceed to define the selected data attribute using the tools within the *Data Menus* box.

   Field Data Type

   Select a *Field Data Type* from the drop-down list to indicate on which data collection screen the attribute will appear.

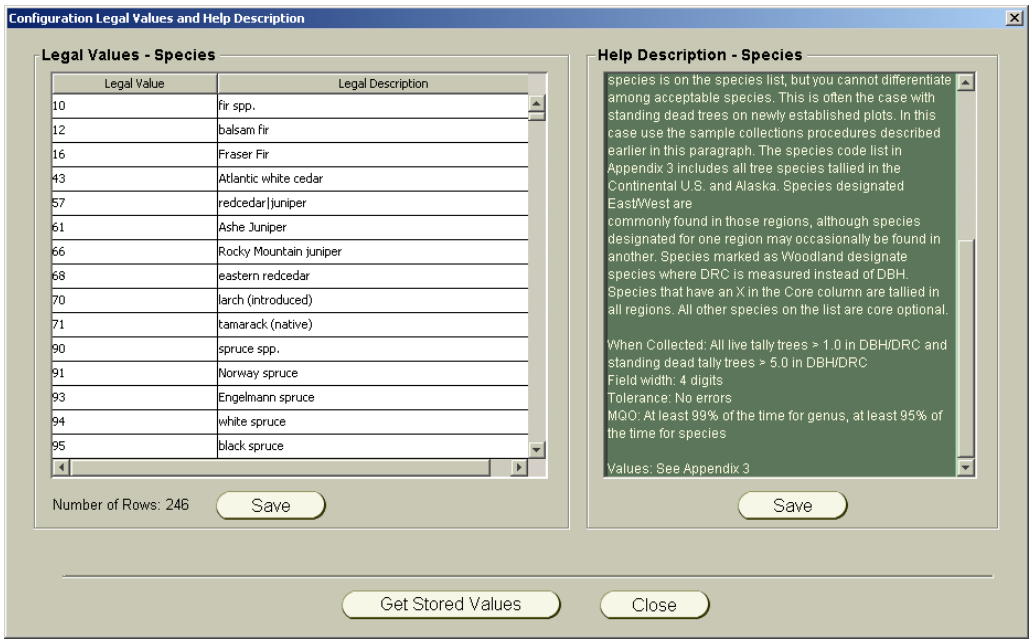
   Validation

   The *Validation* box contains a collection of properties used to define the edits and allowable values for the selected attribute.

   Edit Type
   Select the *Edit Type*, either ***List*** or ***Range***, from the drop-down box. If the valid entries are not in numerical order, a ***List*** is required.

   Range Limits
   If an *Edit Type* of ***Range*** is selected, a *Low* and *High* value must be provided for *Range Limits*. Note that if zero is a valid entry, it must be included in the range.

Values & Help
Click the ***Values & Help*** button to display and/or edit the F1 (help) text and legal values list that the crew will see on the PDR screen. If an *Edit Type* of ***List*** is selected, all legal values must be on this screen. If any changes are made to either the ***Legal Values*** or the ***Help Description*** text, the ***Save*** button must be clicked to move on. To avoid the tedious task of entering long lists of legal values or lengthy help text manually, click the ***Get Stored Values*** button to retrieve the legal data and help text from another configuration file and insert it into the current configuration file.



Data Type

The *Data Type* box contains a collection of properties used to describe the data storage format of the selected attribute.

Data Type
The actual *Data Type* of the attribute, such as *string* or *number*, is defined in the database and cannot be changed.

Max Characters
The maximum number of characters that may be entered for the attribute includes any characters before and after a decimal place.

Dec Precision
The number of characters that may follow the decimal is defined by the *Dec Precision* property.

Encrypted
The *Encrypted* option should be checked for any attributes that require encryption, such as coordinates and owner information.

Display

The *Display* box contains several properties that will dictate how the attributes will appear on the PDR screen.

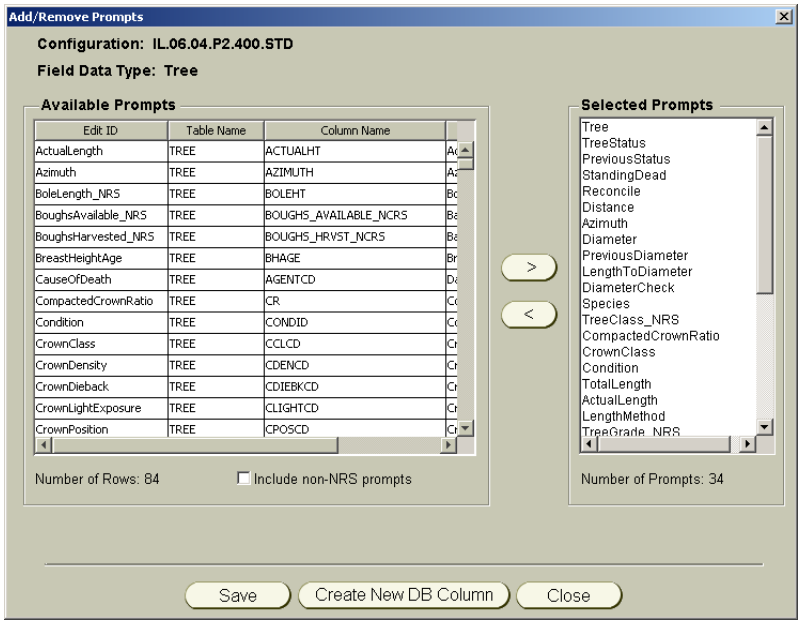
Screen Prompt
Due to limited screen space on the PDR, it is very rare that an attribute's full name will fit on the screen. As such, each attribute must be assigned an abbreviation that will serve as a prompt or label to indicate what attribute value is to be entered. This *Screen Prompt* may have up to 5 digits and may consist of uppercase letters, lowercase letters, and/or numbers.

Hidden
The *Hidden* option should be checked for any historical attributes that will not be displayed on the screen. These attributes are hidden from being viewed by the user and are primarily used for edit purposes only.

Add/Remove Prompts

The *Add/Remove Prompts* button provides access to an *Add/Remove Prompts* screen that allows for the creation of new database columns and for adding data items to or removing data items from the list of ***Attributes***.

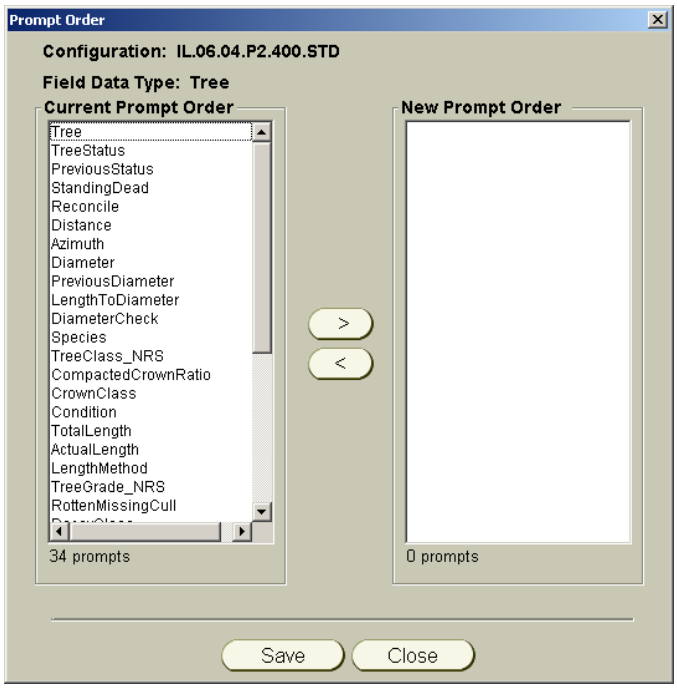
In the *Add/Remove Prompts* screen, use the **>** and **<** buttons to add or remove attributes from the ***Selected Prompts*** list. Continue this process until all attributes to be collected in the study are included in the list. If a desired attribute is not included in the ***Available Prompts*** list, use the ***Create New DB Column*** button to create a new entry in the database. Use this feature with caution, however … once a column is added to the database it is difficult to remove it.



Change Prompt Order

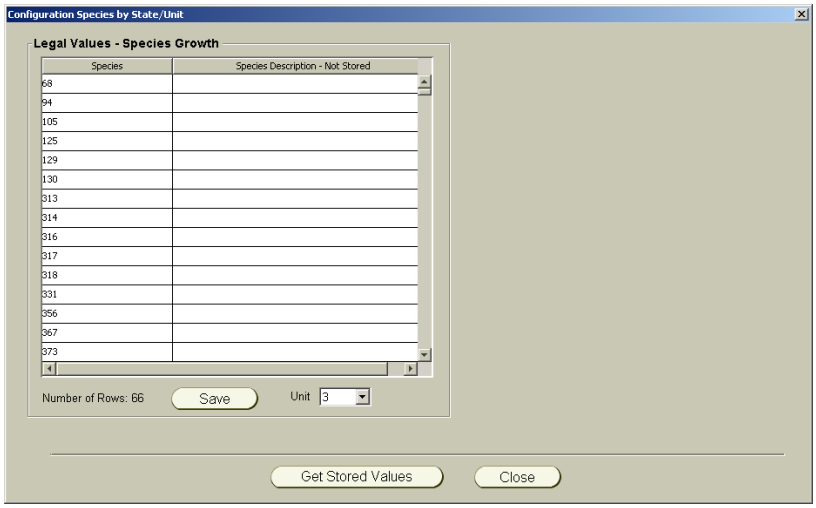
The *Change Prompt Order* button opens a *Prompt Order* screen that allows for the adjustment of the order in which the prompts will appear on the PDR. Use the **>** and **<** buttons to move prompt names from the ***Current Prompt Order*** list to the ***New Prompt Order*** list in order as desired, continuing the process for each prompt. This task will likely be necessary following the creation, addition, or removal of prompts.

When changing prompt order, please note that all hidden attributes must be at the end of the list.

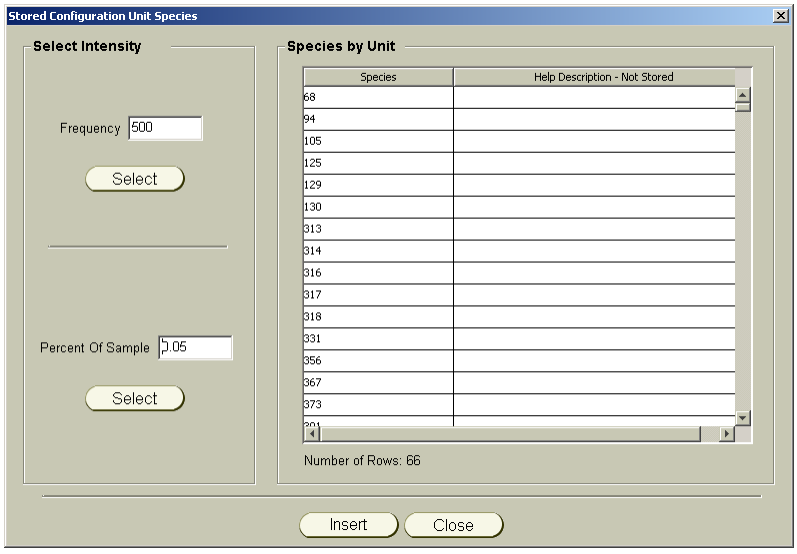


Edit State/Unit Spp

The *Edit State/Unit Spp* button opens a *Configuration Species by State/Unit* screen for viewing and updating a list of species that would be considered normal for the specific state and unit. If a crew enters a species that does not appear on this list, MIDAS will present a warning message indicating that the species is unusual.

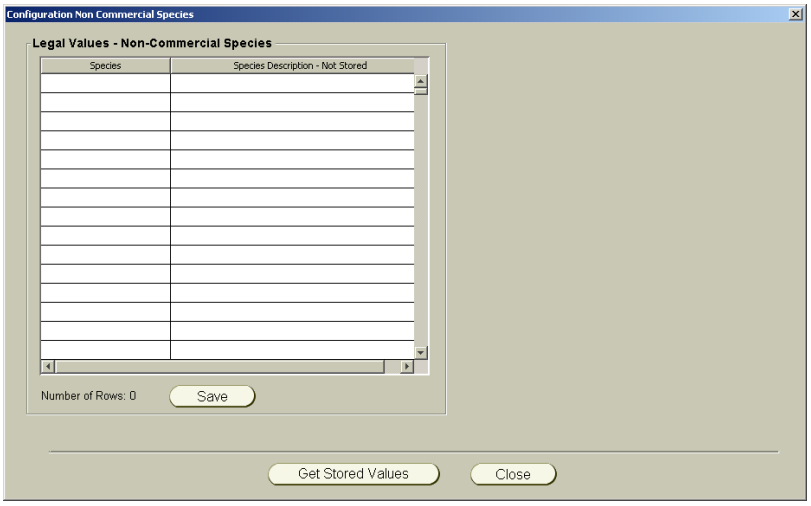


To add a species to the list, click the ***Get Stored Values*** button. In the *Stored Configuration Unit Species* screen, use the ***Select Intensity*** tools to set the threshold of when a species is deemed unusual. For instance, to indicate that a tree species is unusual if it has less than a 0.05% occurrence in the database, enter a value of 0.05 in the ***Percent Of Sample*** text box and click the corresponding ***Select*** button. All species with an occurrence greater than or equal to the 0.05% threshold will appear in the ***Species by Unit*** list … click the ***Insert*** button to add these species to the normal list. The same process may be used to indicate a frequency level threshold for determining unusual, such as defining a species being tallied less than 500 times as unusual.



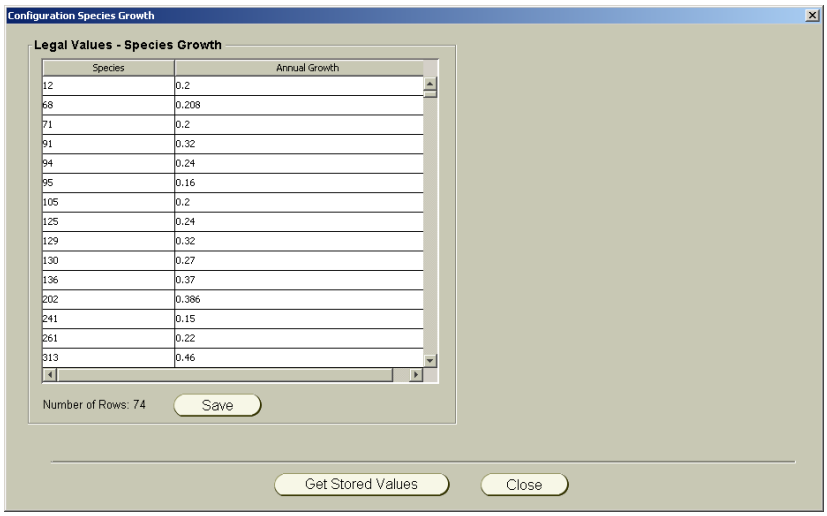
Edit Non-Comm. Spp

The *Edit Non-Comm. Spp* button opens a *Configuration Non Commercial Species* screen for viewing and updating a list of non-commercial species codes.



Edit Spp Growth/Yr

The *Edit Spp Growth/Yr* button opens a *Configuration Species Growth* screen for viewing and updating a list of upper limits that a species is exted to grow weach year. If a crew enters a growth that is higher than the upper limit specified for the species MIDAS will present a warning message indicating that the Species Growth seems high.



Although the calculation of the Species Growth legal values may be automated within MIDAS in the future, at this time it must be done manually. This upper limit should be derived by adding all growth for all trees of a given species in a given year then taking an average of that total and multiplying it by 2.

9. Once all necessary modifications have been made to the configuration, click the ***Save*** button on the *Modify Configuration* screen.

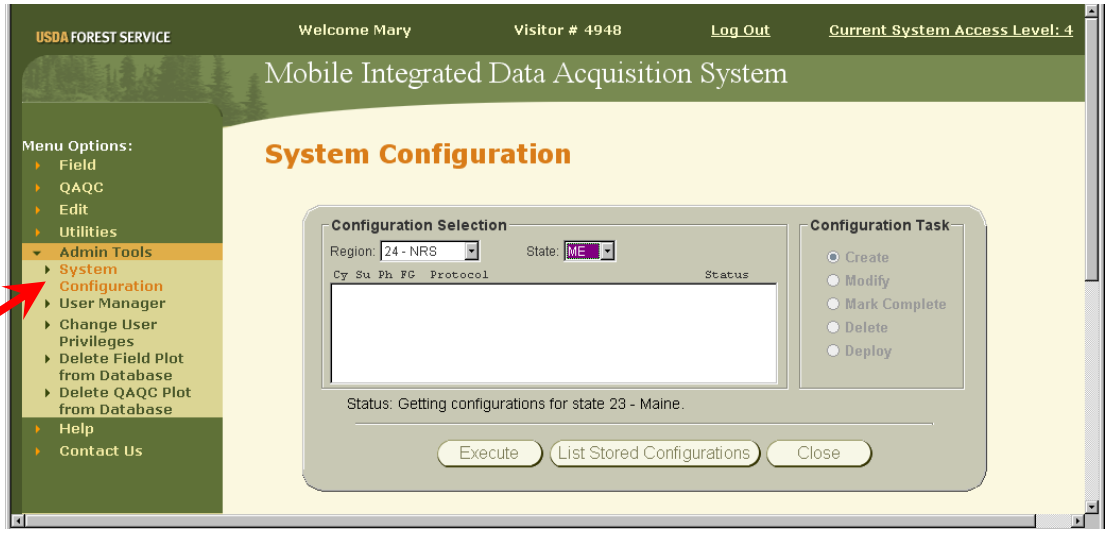
10. The configuration should now be listed with a *status* of ***Modified***. Select the ***Mark Complete*** option from the *Configuration Task* box then click the ***Execute*** button … the *status* of the configuration should now be listed as ***Complete***.

11. Although the newly modified and completed configuration will be automatically deployed the next time the user logs in to the MIDAS web site, it can be manually deployed immediately by selecting the ***Deploy*** option from the *Configuration Task* box then clicking the ***Execute*** button.

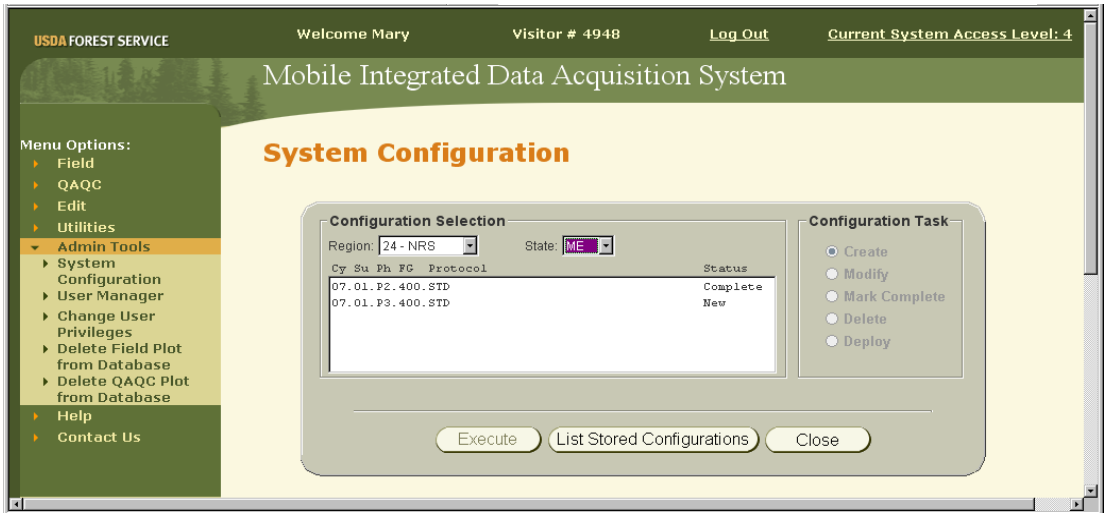
Updating Configuration Files

In order to collect data, the correct configuration must be loaded on the PDR in order to properly define what must be collected … the configuration must coordinate with the specific data that is to be collected, such as P2 data in Maryland using Field Guide 4.0. Generally, this will happen with each new field guide release. However, updating to a new configuration is required if going to a new state to collect data or to begin collecting data for a special study.

1. Once logged in on the MIDAS website, click on ***Admin Tools > System Configuration*** under *Menu Options* on the left side of the web page.

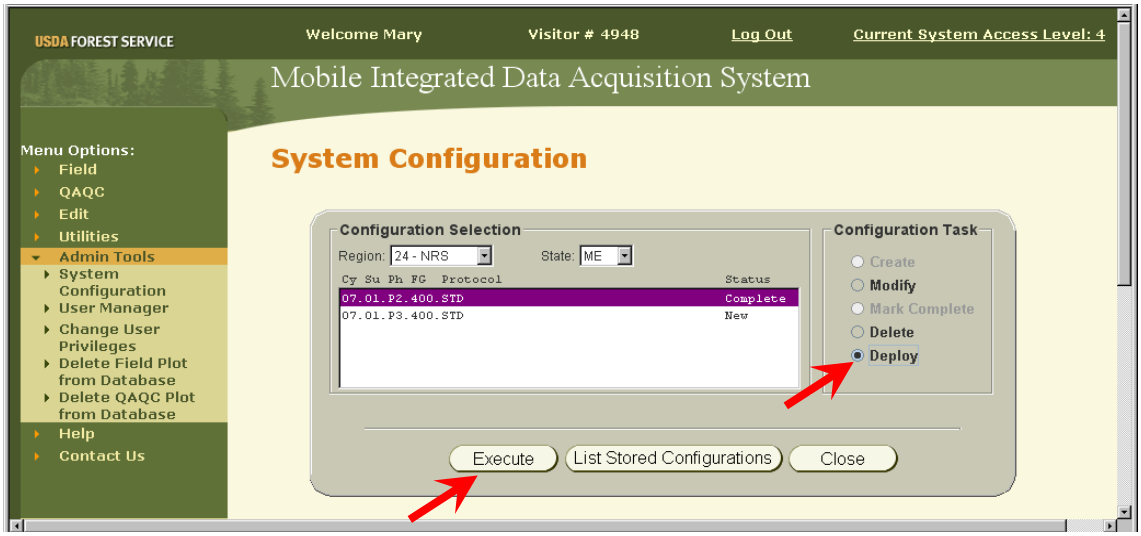


2. On the *System Configuration* screen, select a region from the ***Region*** drop-down box, then select a state from the ***State*** drop-down box. … selecting a region and state will trigger the automatic population of the configuration list with all know configurations for that state. Note that this auto population may take a few seconds.

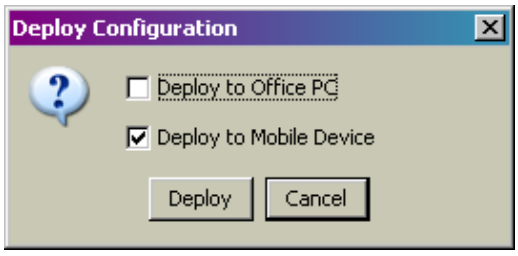


A specific naming convention is used for the configuration listing: *[cycle].[subcycle].[phase].[fieldguide version].[protocol description]*

3. Highlight the desired configuration listed in the ***Configuration Selection*** box, then click to select ***Deploy*** in the ***Configuration Task*** box … click the ***Execute*** button.



4. When prompted to indicate where the configuration should be deployed, click to select the *Office PC*, the *Mobile Device* (PDR), or both.



5. If opting to deploy configuration files directly to the Mobile Device:

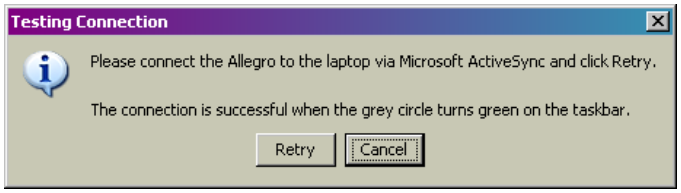
a. On the PDR, close the current MIDAS Mobile application by returning to the main Plot Task screen and either clicking the ***Exit Program*** button or selecting ***Exit*** from the ***File*** menu.

   Note: Return to the main Plot Task screen from within an open plot file by navigating to the main menu screen via the [***F4***] key or the ***Close*** button on the menu bar at the bottom of any data entry screen, then clicking the ***Exit Plot*** button.

b. If not already connected, establish a connection between the PDR and PC via ActiveSync … refer to the section of this guide entitled "Establishing an ActiveSync Connection" for detailed instruction on how to connect via ActiveSync.

6. Click the ***Deploy*** button to begin transferring the configuration files … a *Status* message will appear on the *System Configuration* screen. Please be patient for a few seconds while the program is loaded onto the PC and/or PDR.

7. If MIDAS cannot detect a connection with the PDR while attempting to deploy to the PDR, a message will appear indicating as such … connect the PDR then click the ***Retry*** button.



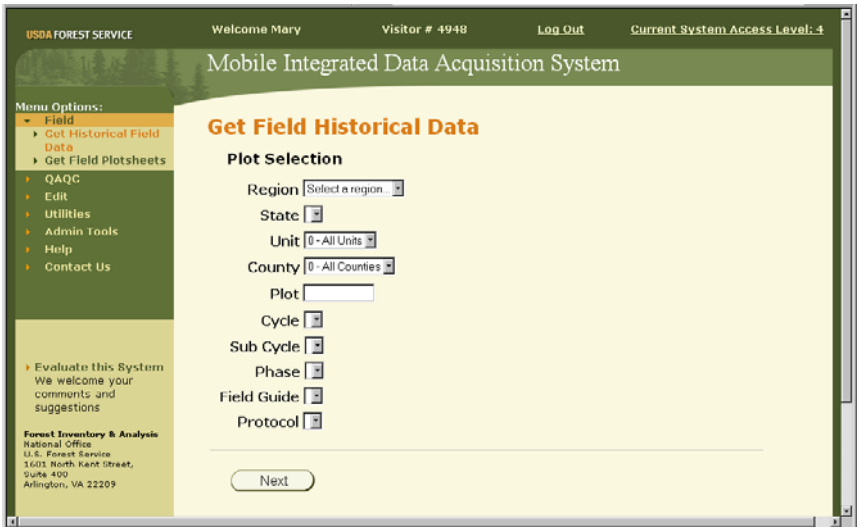
8. When the deployment is complete, a message will be presented indicating that the deployment was successful … click the ***OK*** button.

Create Plot Files

MIDAS requires a base plot file (referred to as a *historical file*) for each field plot that is to be measured. The historical file is pre-populated with basic plot id information as well as available history data in the case of remeasure plots. Creating these historical files is a task available to all levels of users, and involves retrieving the id and history data from the field database. If data is to be collected using the PDR, the historical file must also be sent to the PDR from the PC.

Retrieve Historical Data from the Database

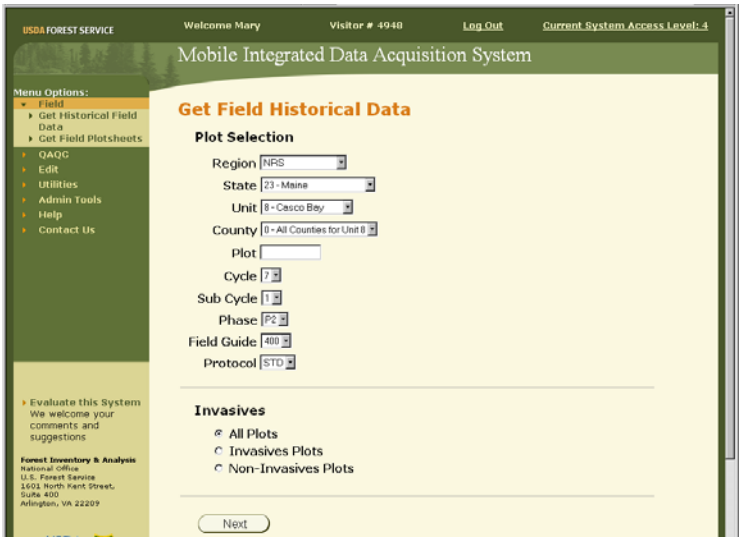
1. Once logged in on the MIDAS website, click on ***Field > Get Historical Field Data*** under *Menu Options* on the left side of the web page.



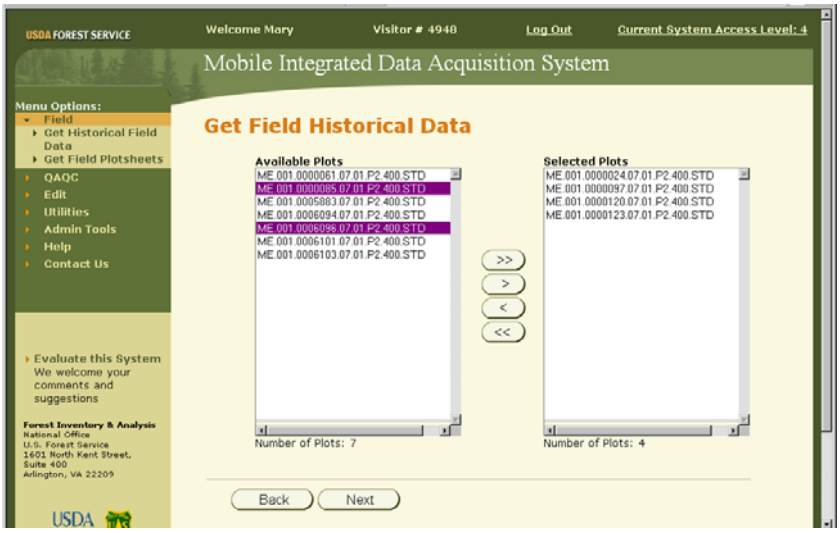
2. On the *Get Field Historical Data* screen, define the ***Plot Selection*** criteria by selecting a region from the ***Region*** drop-down box, then selecting a state from the ***State*** drop-down box. Note that when a selection is made in one box, the selections in the remaining boxes will be automatically updated to reflect the available data based on the values already selected.

3. To further refine the selection of which plot files are desired, select values from the remaining drop-down boxes to meet the selection criteria. Note that the ***Unit*** and ***County*** drop-down boxes will allow for the selection of *All*.

4. After all ***Plot Selection*** criteria have been specified, click the ***Next*** button.
   Note: If the NRS region is selected, an additional selection criteria section will appear at the bottom of the page … click to select the appropriate ***Invasives*** type for the desired plots.



5. Once the desired selection criteria have been submitted, a list of ***Available Plots*** based on that criteria will be presented. To select all of the listed plots, click the **>>** button. Otherwise, click to highlight the desired plots, using the CTRL key to select multiple plots … then click the **>** button to move the selected plots to the ***Selected Plots*** list. To remove any undesired plots from the ***Selected Plots*** list, click to highlight the plot then click the **<** button. The **<<** button will remove all plots from the ***Selected Plots*** list.



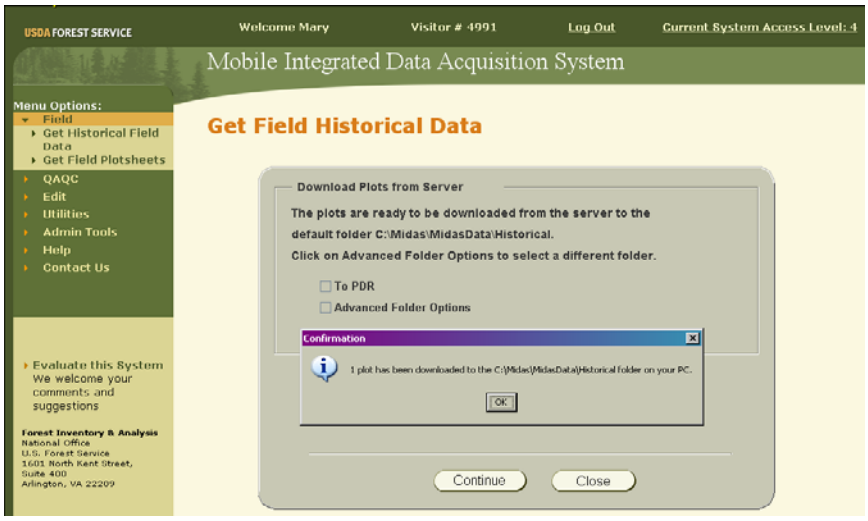
6. Click the ***Next*** button to submit the list of selected plots and proceed to the *Download Plots from Server* screen.

7. Upon entering the *Download Plots from Server* screen, the plots are ready to be downloaded directly to a default directory on the PC. The screen does, however, offer other options:

   - To select an alternate location on the PC for the downloaded history files, click to select the ***Advanced Folder Options*** option and select the desired location.

   - Although not the preferred method, it is also possible to send the downloaded history files to the PDR in addition to the PC by clicking to select the ***To PDR*** option. It is recommended, however, to download to the PC only, then use the process described in the section entitled "Send Plot to the PDR" instead.
     Note: if selecting the PDR option and not already connected, establish a connection between the PDR and PC via ActiveSync … refer to the section of this guide entitled "Establishing an ActiveSync Connection" for detailed instruction on how to connect via ActiveSync.

8. Once all desired download options are selected, click the ***Continue*** button. If no options have been selected, the plots will be downloaded from the server directly to the default directory on the PC.



9. A message will appear confirming that the plot files have been downloaded … click ***OK***.

Send Plots to the PDR

It may be possible that the history files have been downloaded from the database to the PC, but have not been sent to the PDR. This would occur if the ***To PDR*** option was not selected when the plots were originally downloaded from the database, as described in Step 7 of the "Retrieve Historical Data from the Database" section of this document. If this is the case, the history files will need to be sent from the PC to the PDR.

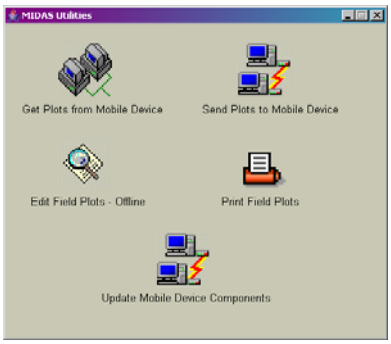
1. On the PDR, close the current MIDAS Mobile application by returning to the main Plot Task screen and either clicking the ***Exit Program*** button or selecting ***Exit*** from the ***File*** menu.

   Note: Return to the main Plot Task screen from within an open plot file by navigating to the main menu screen via the [***F4***] key or the ***Close*** button on the menu bar at the bottom of any data entry screen, then clicking the ***Exit Plot*** button.

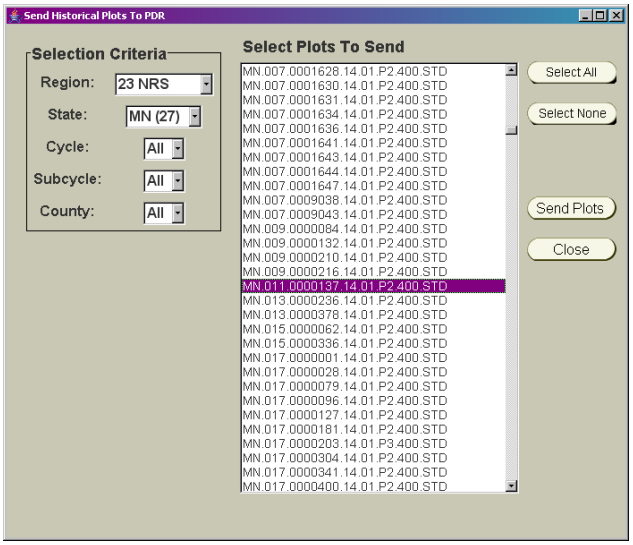
2. If not already connected, establish a connection between the PDR and PC via ActiveSync … refer to the section of this guide entitled "Establishing an ActiveSync Connection" for detailed instruction on how to connect via ActiveSync.

3. Open the *MIDAS Control Panel* on the PC by clicking on the ***MIDAS Contol Panel*** icon on the desktop.

4. In the *MIDAS Control Panel* window, click the ***Send Plots to Mobile Device*** button.



5. After a few seconds, a *Send Historical Plots to PDR* window will open … define the ***Plot Selection*** criteria by selecting a region from the ***Region*** drop-down box, then selecting a state from the ***State*** drop-down box. Note that when a selection is made in one box, the selections in the remaining boxes will be automatically updated to reflect the available data based on the values already selected.



6. To further refine the selection of which plot files are desired, select values from the remaining drop-down boxes to meet the selection criteria. Note that the ***Cylce***, ***Subcycle*** and ***County*** drop-down boxes will allow for the selection of *All*.

7. Once the desired selection criteria have been submitted, a list of available plots based on that criteria will be presented. Click to highlight the desired plot or plots, using the CTRL key to select multiple plots … then click the ***Send Plots*** button to initiate the transfer of the selected plots to the PDR.

8. A message will appear confirming that the plot file(s) have been copied to the PDR … click ***OK***.

In addition to sending over the selected plot history file(s) to the PDR, this process will also automatically send any new MIDAS components (including configuration files, program files, and ActiveSync updates) to ensure that the program is current and up-to-date.

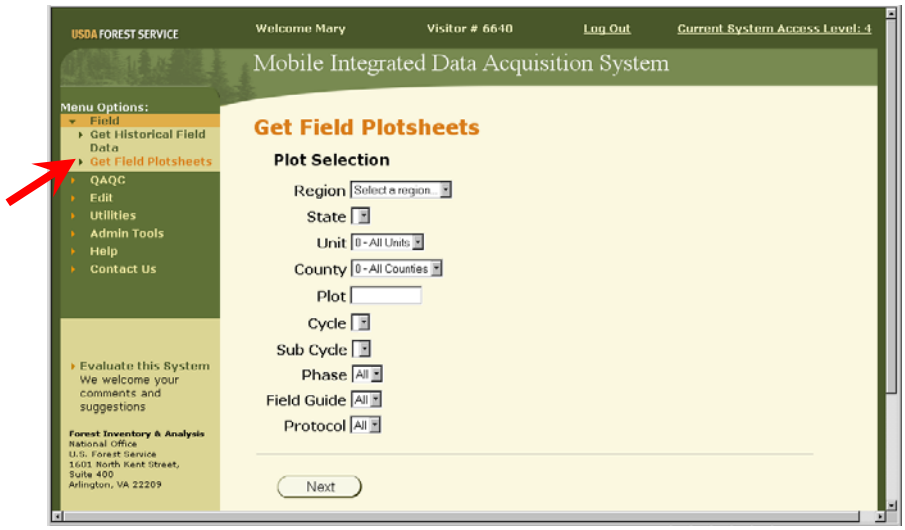
Print Field Plotsheet

In the case of remeasure plots, it may be advantageous to have a printed hardcopy of the field plotsheet. To accommodate this, the MIDAS website has a function that will print a blank plotsheet that contains the respective plot number, historical plot data, historical tree data, and the previous field crew

map that has been scanned into the database.

Note that this feature may not be available in all regions.

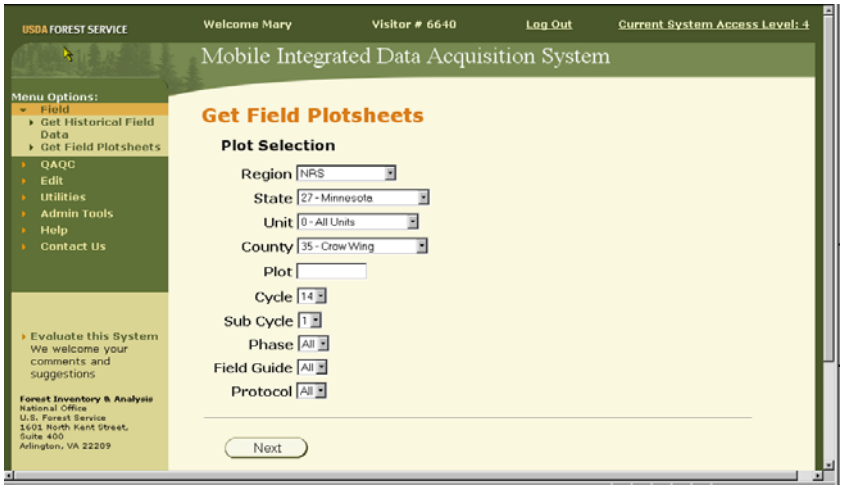
1. Once logged in on the MIDAS website, click on ***Field > Get Field Plotsheets*** under *Menu Options* on the left side of the web page.



2. On the *Get Field Plotsheets* screen, define the ***Plot Selection*** criteria by selecting a region from the ***Region*** drop-down box, then selecting a state from the ***State*** drop-down box. Note that when a selection is made in one box, the selections in the remaining boxes will be automatically updated to reflect the available data based on the values already selected.

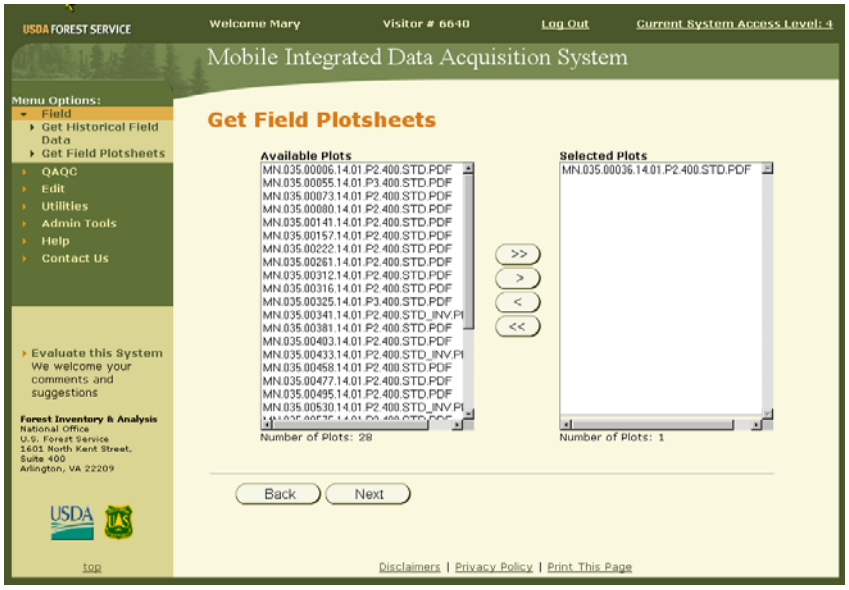
3. To further refine the selection of which plot files are desired, select values from the remaining drop-down boxes to meet the selection criteria. Note that the ***Unit*** and ***County*** drop-down boxes will allow for the selection of *All*.

4. After all ***Plot Selection*** criteria have been specified, click the ***Next*** button.



5. Once the desired selection criteria have been submitted, a list of ***Available Plots*** based on that criteria will be presented. Note that the plotsheet files will have a .PDF extension.

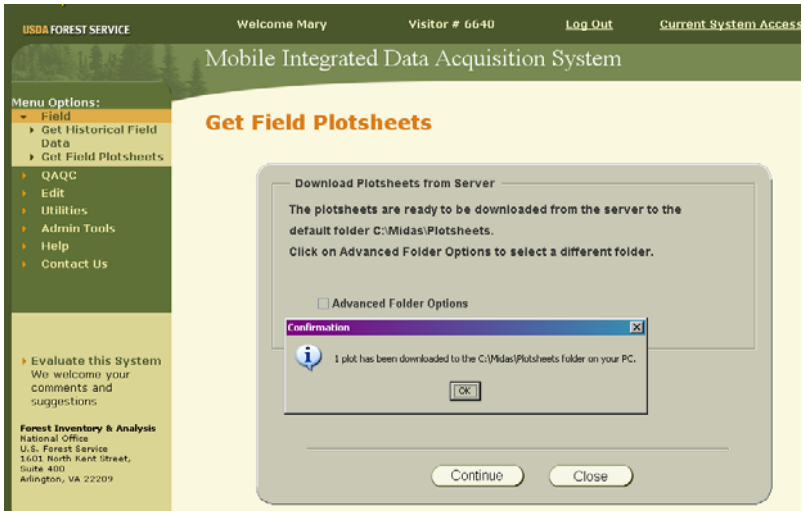
6. Click to select the plotsheet(s) that are desired for download. To select all of the listed plotsheets, click the **>>** button. Otherwise, click to highlight the desired plotsheets, using the CTRL key to select multiple plots … then click the **>** button to move the selected plotsheets to the ***Selected Plots*** list. To remove any undesired plotsheets from the ***Selected Plots*** list, click to highlight the plotheet file then click the **<** button. The **<<** button will remove all plotsheet files from the ***Selected Plots*** list.



7. Click the ***Next*** button to submit the list of selected plotsheets and proceed to the *Download Plotsheets from Server* screen.

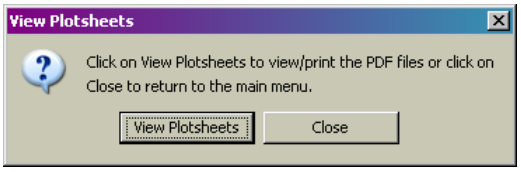
8. Upon entering the *Download Plotsheets from Server* screen, the plotsheets are ready to be downloaded directly to a default directory on the PC. The screen does offer the option to select an alternate location on the PC for the downloaded plotsheet files by clicking to select the ***Advanced Folder Options*** option and selecting the desired location.

9. Click the ***Continue*** button. The plotsheets will be downloaded from the server directly to either the default directory on the PC or to another directory on the PC as specified as an advanced folder option.

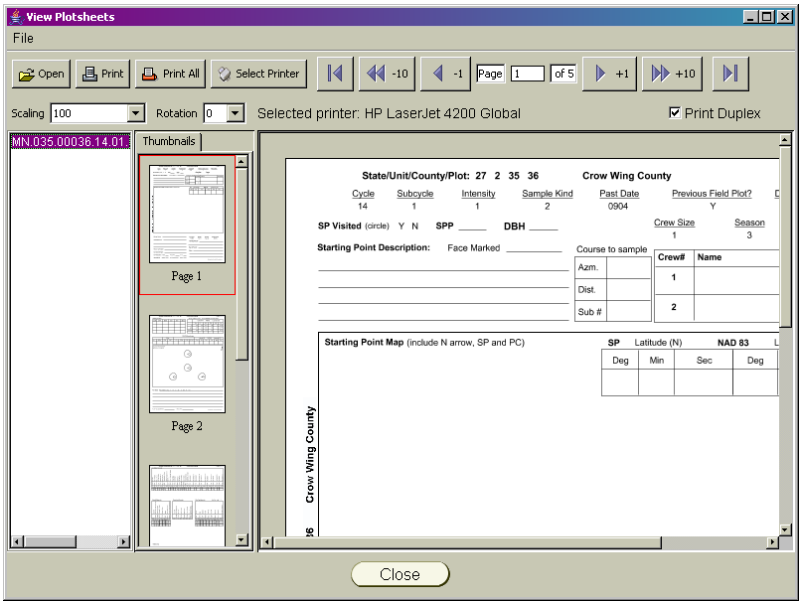


10. A message will appear confirming that the plotsheet(s) have been downloaded … click ***OK*.**

11. A *View Plotsheets* message will appear … click the ***View Plotsheets*** button to open a screen for viewing and printing the plotsheet file.



12. On the *View Plotsheets* screen, click to select the desired plotsheet file(s) … then click the ***Print*** button to send the plotsheet to the default printer for printing.



13. Click the ***Close*** button after the plotsheet has successfully printed.

Data Collection on the PDR

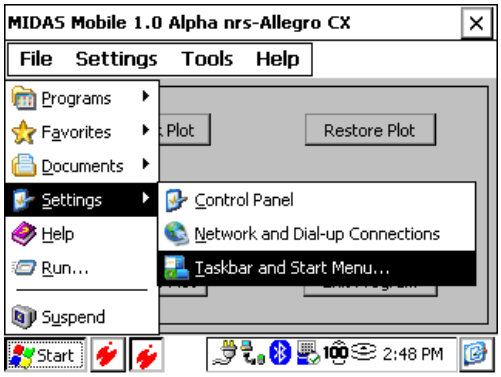
PDR Settings

- While collecting data you may wish to disable the PDR touch screen. On the Allegro, it can be toggled on/off by pressing ***TS*** (the Blue [] key and the Back Space[] key together).

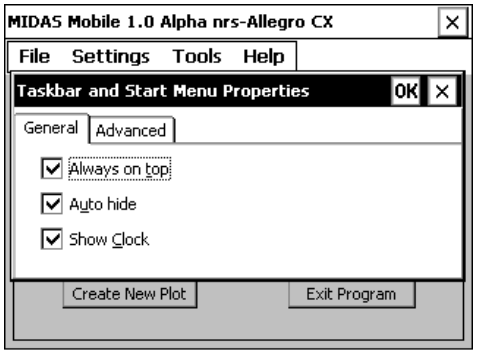
> For all instructions on the PDR, an indication to click on the screen can be duplicated without the use of the touch screen by using the [←], [→], [↑], [↓], or [**TAB**] keys to highlight the desired item then pressing the [**ENTER**] key. For accessing the screen menu bar without the use of the touch screen, press the [**ALT**] key to activate the menus then use the [←], [→], [↑], [↓], or [**TAB**] keys to highlight the desired menu item then press the [**ENTER**] key.

- The MIDAS Mobile program was designed to use the full height and width of the screen. As such, the *System Taskbar* at the bottom of the screen should be set to Auto hide:

  1. On the PDR, select ***Start > Settings > Taskbar and Start Menu***. Note that if using an Allegro, the Start menu can be opened by pressing the Blue [] key and the Start [] key together.



  2. In the *Taskbar and Start Menu Properties* screen, click on the ***General*** tab then check the ***Auto hide*** option.



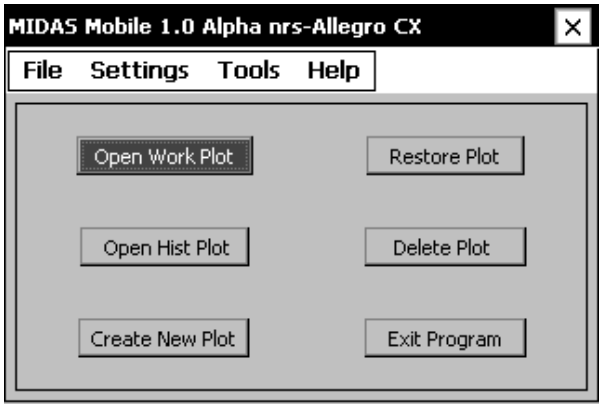
3. Click the ***OK*** button in the top right corner of the screen to apply your new settings.

Starting MIDAS Mobile

MIDAS Mobile is designed to launch automatically when the PDR is reset. If the program has been installed but is not running on the machine, simply press and hold the PDR's ***On/Off*** key until the screen flashes … MIDAS Mobile will automatically open.

General Orientation & Navigation

- In all likelihood, the touch screen of the PDR will be turned off during data collection in the field. A number of standard navigation keys and shortcut keys are available for entering data without the use of the touch screen. Refer to the *Navigation/Shortcut Keys* topic within the "Data Entry" section of this document for detailed descriptions of these keys.
- The program will open to a *Plot Task* screen that provides the most basic actions that can be performed on a plot:



Open Work Plot allows for the opening of an existing plot for which data collection is in progress. This selection will present a listing of all available work plot files on the PDR … use the drop-down boxes on the left side of the screen to narrow down the list by State, Cycle, Subcycle, and/or County.

Open Hist Plot allows for the opening of a base plot file that has been populated with downloaded history data … data collection has not yet begun on these files. This selection will present a listing of all available history plot files on the PDR … use the drop-down boxes on the left side of the screen to narrow down the list by State, Cycle, Subcycle, and/or County.

Create New Plot allows for the on-the-fly creation of a new, empty plot file such as would be needed in the case of a replacement plot.

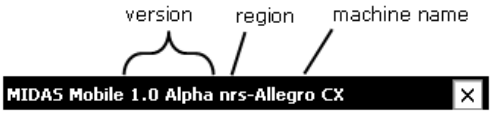
Restore Plot allows for the restoration of a plot that has been lost due to some type of critical error such as a machine crash or battery failure. For a more detailed discussion on this topic, refer to the "Data Restore" section of this guide.

Delete Plot allows for the deletion of plot files that have already been

successfully loaded into the database … files will remain in the backup folders, but will no longer appear in the list of existing plots to be opened/edited.

Exit Program will close the MIDAS Mobile application.

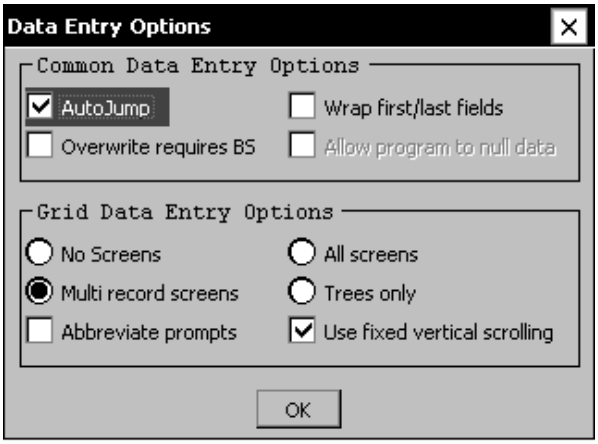
- The screen title bar for the initial Plot Task screen displays the current program version, as well as the region and machine name provided as system settings by the user.



Data Entry

Data Entry Options

Several options are available to customize the data entry screens. To access and set these options, select ***Data Entry Options*** from the ***Settings*** menu on the initial Plot Task screen or press the [***Ctrl***] + [***A***] keys while on any data entry screen.



AutoJump
When set to on, the AutoJump option will enable the cursor to automatically jump to the next field when data entry in a field is complete. That's to say that after the second character in a field with a length of 2 characters is entered, the program will automatically move the cursor to the next field and be ready for data entry of the next field. If the AutoJump option is disabled, moving to the next data entry field will require an additional keystroke on the part of the user, usually in the form of either the [➤] or the [***ENTER***] keys.

Wrap first/last fields
When checked, this option will enable the cursor to automatically wrap back from the last field to the first field of the current record, or vice versa. When unchecked, returning to the last or first field would require the use of a navigation shortcut key, stepping through all keys in

between, or physically clicking on the first or last field on the touch screen.

Overwrite requires BS
When entering a data entry field, any existing value is automatically highlighted. When this option is checked, the existing value will not be overwritten or replaced unless the [***BkSp***] key is first pressed to remove the existing value. When this option is not checked, the existing value will be automatically overwritten if a number key is pressed. Having this option unchecked may accommodate faster data entry, however it also allows the chance for accidental overwriting of existing data.

Grid – No Screens / All screens / Multi record screens / Trees only
The grid "screens" option allows the user to set which screens will appear in grid format. This setting will be applied when a plot file is opened, but will be disabled if the [***Ctrl***] + [***D***] toggle is used while the plot file is open, and the user will then be required to use [***Ctrl***] + [***D***] to toggle between grid and full record format while the plot remains open. Closing and reopening the plot or opening a new plot will once again engage the grid "screens" option setting. Only 1 of the 4 options may be selected at one time … selecting one will deselect the remaining 3.

Grid – Abbreviate prompts
When set to on, the field prompts on the grid display will be reduced to only 2 characters instead of the standard 4 characters. If there is any question as to what the active field is, the full field name is displayed in a black box in the upper right corner of the Tree frame.

Grid – Use fixed vertical scrolling
When checked, the fixed vertical scrolling option will attempt to keep the active grid row centered in the middle of the grid.

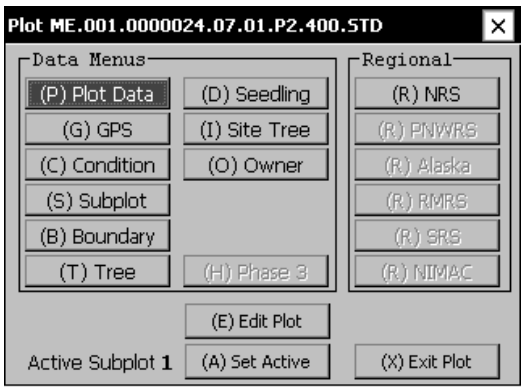
Open a Plot File

- To enter data for a plot, the history file for the desired plot must have been downloaded to the PDR. See the previous sections of this document entitled "Retrieve Historical Data from the Database" and "Send Plots to the PDR" for detailed instruction on downloading history files.
- To open a plot file for data entry, click either the ***Open Hist Plot*** or ***Open Work Plot*** button on the main plot task screen. For a more detailed description of these buttons and how to select and open a plot, see the previous section entitled "General Orientation & Navigation".

Main Menu

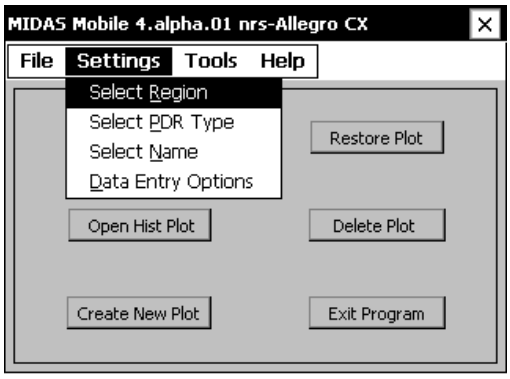
- When a plot is opened, a "home" screen will appear. This home screen or main menu will allow the user to go to a specific part of the plot file if desired. Letter keys, contained in parentheses () preceding the menu

names, are available as shortcuts when entering data without the use of the touch screen.



- In addition to the national data collection screens as available in the *Data Menus* list, a number of regional data collection screens may also be available. To access any available regional data collection screens, use the [***R***] key or click to select the Regional menu button. The regional data collection screens will also appear when scrolling through screens via the next/previous menu feature as available on each data collection screen.

  Note that the regional menu that is available is dependent upon the region value that has been set within MIDAS for that specific PDR … to change the region value, exit the plot and select ***Select Region*** from the ***Settings*** menu on the main Plot Task screen:



- Unlike the other national data entry screens, the *Owner* data entry screen is available only via the main menu. Since *Owner* data is collected at the court house rather than in the field, it is neither necessary nor desirable for the *Owner* screen to appear when scrolling through the data entry screens using the next/previous menu feature while collecting data in the field.
- At the bottom of the main menu, the current active subplot is displayed. For data collection screens that are collected on each subplot, clicking or selecting the data menu from the main menu will open the corresponding collection screen for the active subplot. To change the active subplot,

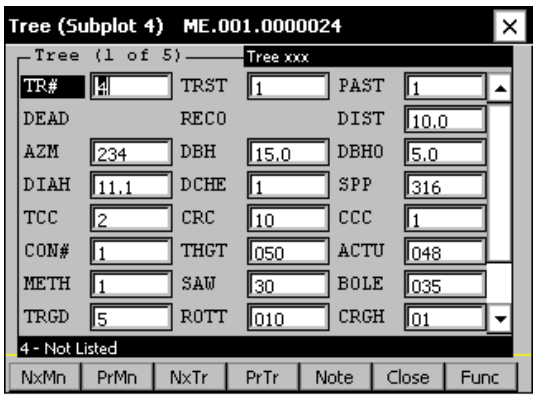
click or select the ***Set Active*** button on the main menu.

Note that when using the next/previous menu feature to scroll through the data collection screens rather than selecting them from the main menu, MIDAS will scroll through all screens for a particular subplot then move on to the next subplot's screens.

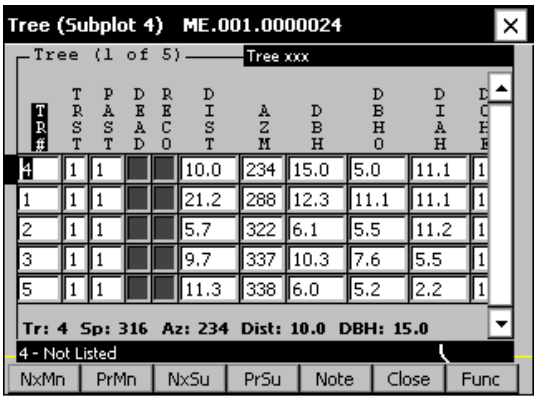
- Once all data has been entered for a plot, click the ***Edit Plot*** button to run all validation edits on all data entry screens for the current plot. A complete detailed explanation of the Edit Plot feature can be found in a later section of this document entitled "Edit Plot Data".
- The ***Exit Plot*** button will close the current plot file and return the user to the main plot task screen.

Data Entry Screens

- The data entry screens may be toggled between 2 different formats depending on user preference … full record format or grid format. For the full record format, only one record is displayed at a time with as many fields for that record displayed as possible. For the grid format, all records are displayed with one record per row. To toggle from one to the other, press the [***CTRL***] + [***D***] keys.

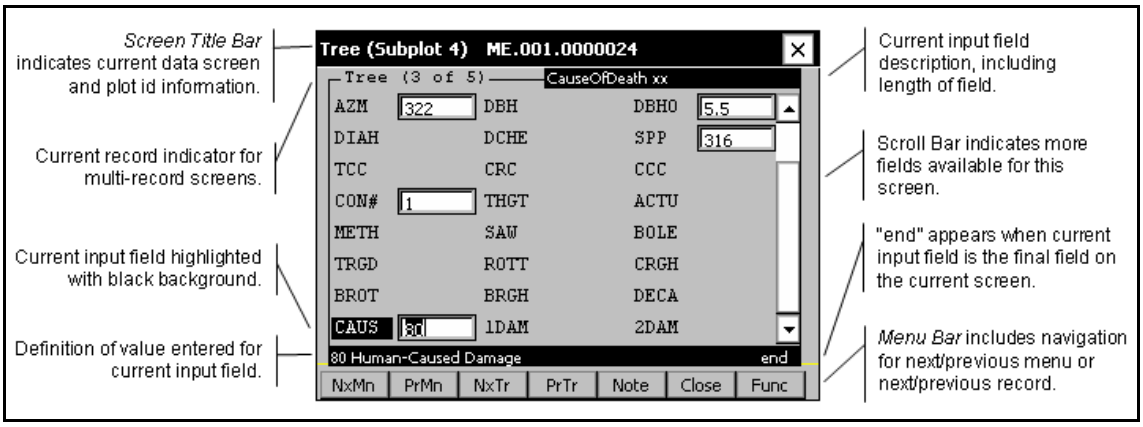


Full Record

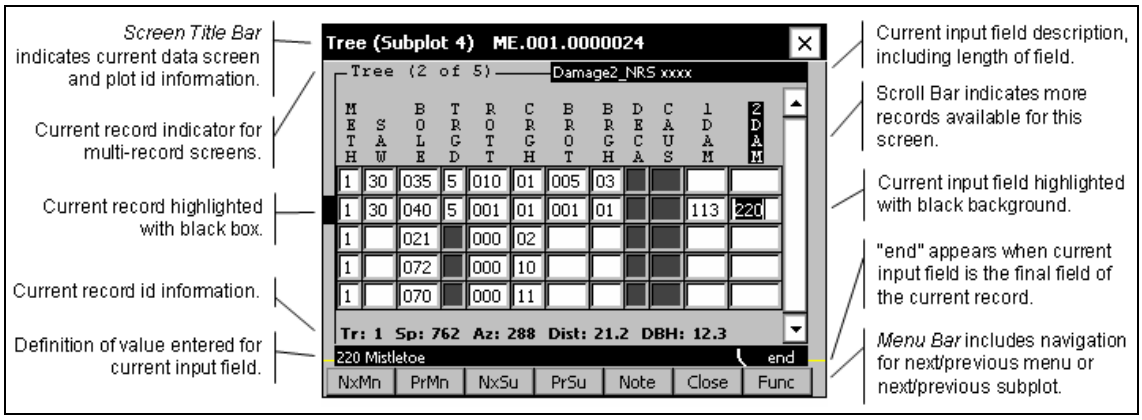


Grid

- Despite the small size of the PDR display, the MIDAS data entry screens have been designed to present a vast amount of information in as little area as possible so that the user has the information they require in front of them at all times.

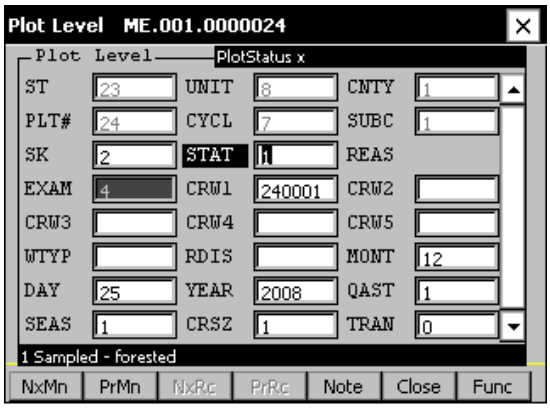


Sample Tree Screen from MIDAS Mobile (*Full Record View*)



Sample Tree Screen from MIDAS Mobile (*Grid View*)

- On occasion, changing the value that was previously entered in a field may result in another field no longer being required to be collected. In this situation the field that should not be collected but which still contains a value will be highlighted with a grey background to alert the user to return to that field and delete the contents. For example, a change in *Plot Status* from a value of 2 to a value of 1 would result in the *Subplots Examined* field no longer requiring a value, as seen at right.



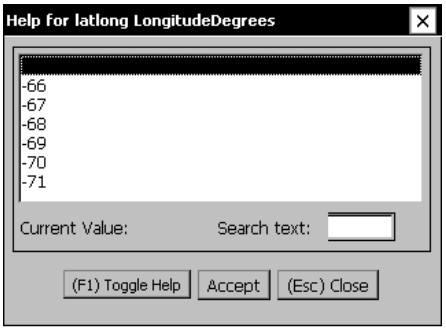
Entering Plot Coordinate Data

The MIDAS Mobile application provides for two ways to enter coordinate data … either manually via the PDR keyboard or by electronic import.

Manual Entry of Coordinate Data

Although the importing of electronic coordinate data is the preferred method for entering plot coordinates, it is also possible to simply enter the data manually via the PDR keyboard.

A word of caution on manually entering the Longitude Degree value … if the coordinate is a negative coordinate, it must be entered as such. On the Allegro, a negative sign is entered by pressing the Blue [] key and the Decimal [] key simultaneously. Alternatively, the user may also access the help menu while in the longitude degree field and select the negative coordinate value from the list of available coordinates.



Importing Electronic Coordinate Data

In order to eliminate data transcription errors, the MIDAS program has the ability to read GPS coordinates from an electronic file and automatically update the coordinate fields in the plot file with those values. *At this time, the coordinate import feature is available only for Allegro PDR's running the LandmarkCE software from Juniper Systems*. The following steps are required to import the coordinate data:

1. Using the LandmarkCE software on the Allegro PDR, collect the desired coordinate data.
2. Use the ***Export*** button on the LandMark CE *Mark Point* screen to write the GPS data to a temporary electronic file.
3. In the MIDAS Mobile program on the Allegro PDR, navigate to the GPS data entry screen within the plot file … press the [***CTRL***] + [***K***] keys to automatically import the coordinate values.

Note that the coordinate values must be imported into MIDAS within 15 minutes of the time that they were collected and saved using the LandmarkCE software to ensure that the proper coordinates are associated with the corresponding plot data.

Adding a New Tree Record (or Condition, or Boundary, or …)

For data screens that contain multiple records, such as the Tree screen, it is not uncommon to require the addition of a new record:

- When viewing tree records on the Tree screen in full record mode, navigate to the final existing tree record then click the ***NxTr*** button on the bottom menu bar to add a new tree record. If the touch screen is not active, press the [***TAB*** ➤] key.

- To add a new tree record when viewing in grid mode, navigate to the final existing tree record then press the [***TAB*** ➤] key.

This same logic also applies to other multi-record screens … ***NxCo*** will add a new condition, ***NxBn*** will add a new boundary, and so on.

Data Tools, Functions, and Function Keys

The data collection screens have a number of navigation aids, data tools and functions that are accessible via the menu bar at the bottom of the data entry screen or via the function keys. While the menu bar is discussed in detail in a later section of this document entitled “Menu Bar”, the following is a description of the functionality that is accessible via the function keys:

F1 Function Key: Item Help

- Displays data help screens, including both valid value information and field guide descriptions.
- When the [***F1***] key is first pressed, it displays a list of valid values, if applicable, for the given data field. For measurement type fields that do not have a valid list, an indication of “Legal List Not Available” will be displayed.
- To view the full field guide description of the given data field, press the [***F1***] key again (or click the ***Toggle Help*** button) while the valid list help screen is displayed.
- To select a value from the list of valid values, use the arrow keys to highlight the selection then press the [***Enter***] key or click the ***Accept*** button.
- To close the help screen without making a selection, press the [***Esc***] key or click the ***Close*** button.
- The help screens may be accessed via the ***Func*** button in the menu bar at the bottom of the data collection screen … click ***Func*** then click ***Item Help*** (or press the [***A***] key).

F2 Function Key: Next Menu

- Press the [***F2***] key to navigate to the next data menu screen, i.e. move from the Tree screen to the Seedling screen.
- The Next Menu functionality is also available via the ***NxMn*** button in the menu bar at the bottom of the data collection screen.

F3 Function Key: Previous Menu

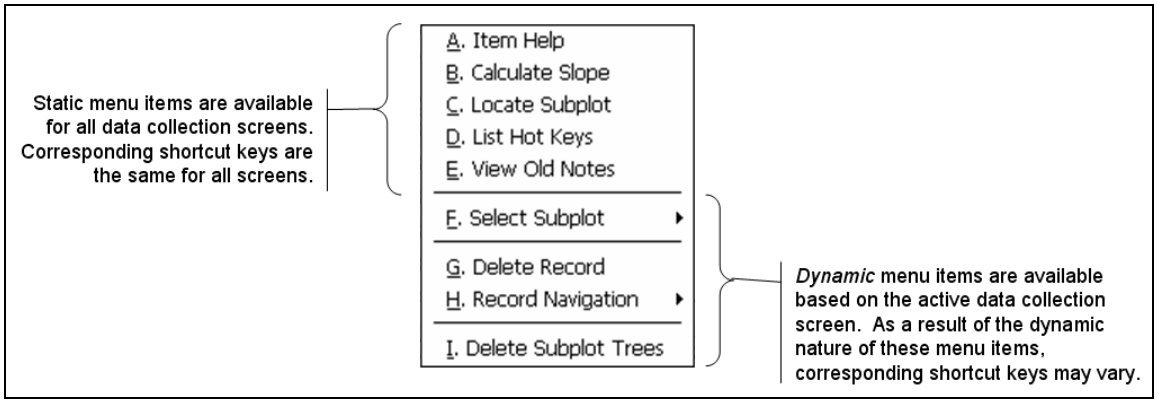
- Press the [***F3***] key to navigate to the previous data menu screen, i.e. move from the Seedling screen to the Tree screen.
- The Previous Menu functionality is also available via the ***PrMn*** button in the menu bar at the bottom of the data collection screen.

F4 Function Key: Return to Main Menu

- Press the [***F4***] key to navigate to the main menu.
- Returning to the main menu is also possible via the ***Close*** button in the menu bar at the bottom of the data collection screen.

F5 Function Key: Data Tools & Functions

- Press the [***F5***] key to access a menu for available data tools and functions.
- The menu of available data tools and functions is also available via the ***Func*** button in the menu bar at the bottom of the data collection screen.
- The ***Func*** button and [***F5***] key are available on all data collection screens with the exception of Owner.
- The menu of data tools and functions is dynamic, meaning that it is different from screen to screen. The top section of menu items are static and will always appear. The other items, however, will only appear if they are applicable for the currently active data screen.



- The following is a brief description of available tools and functions:

  Item Help
  Displays data help screens, including valid value lists and field guide descriptions. Item Help is also accessible via the [***F1***] Function key.

Calculate Slope
Calculation tool for determining Horizontal Distance and Slope Correction based on user inputs of % Slope and Slope Distance.

Locate Subplot
Calculation tool to aid crews in navigating from one subplot to another without going back to subplot #1 by determining Distance and Azimuth between plot centers based on user inputs of starting subplot number and destination subplot number.

List Hot Keys
Displays a list of all hot keys currently available within the program.

View Old Notes
Presents a list of any notes that were provided by previous field crews, as downloaded as part of the plot's history data.

Select Subplot
This function allows the user to switch to another subplot while working in a subplot specific data collection screen, such as Tree or Boundary. The Select Subplot menu item would not appear on a screen such as GPS since GPS data is entered for the plot as a whole rather than for a specific subplot. Select Subplot is also accessible via the [***Ctrl***] + [***I***] key combination … [***Ctrl***] + [***O***] and [***Ctrl***] + [***U***] will allow navigation to the previous and next subplots respectively.

Delete Record
For multi-record data collection screens, such as Tree, this function allows the user to delete the current record. This function will not, however, allow the deletion of a record which contains historical data.

Record Navigation
For multi-record data collection screens, such as Tree, this function allows the user to move to a specific record within the data screen. A submenu allows for the selection of First Record, Last Record or Goto Record #, which prompts the user to enter a record number.

Delete Subplot Trees
Available only for QAQC plots, this function allows for the deletion of all tree records on a specific subplot that were not measured for quality control.

Menu Bar

The data collection screens have a number of navigation aids, data tools and functions that are accessible via the menu bar at the bottom of the data entry screen or via the function keys. While the function keys have been discussed in a previous section of this document entitled "Data Tools, Functions, and Function Keys", the following is a description of the functionality that is accessible via the menu bar at the bottom of the data entry screen:

Next Menu

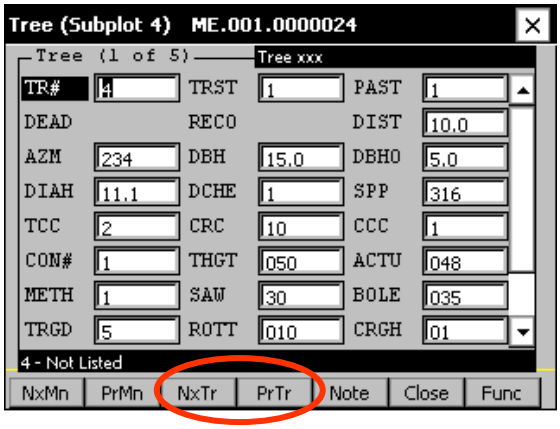
- Navigates to the next data menu or collection screen, in order as presented on the main menu screen. If on the Tree screen, for instance, clicking the ***NxMn*** button will navigate to the Seedling screen.
- For data menus that are collected on each subplot, Next Menu will proceed through all screens for one subplot then loop back and proceed through with the data menus for the next subplot.
- Regional data menus will be viewed via the Next Menu functionality.
- The Ownership menu will not be viewed via the Next Menu functionality … it must be selected from the main menu screen.
- If the touch screen is not active, the Next Menu functionality is also available via the [***F2***] key.

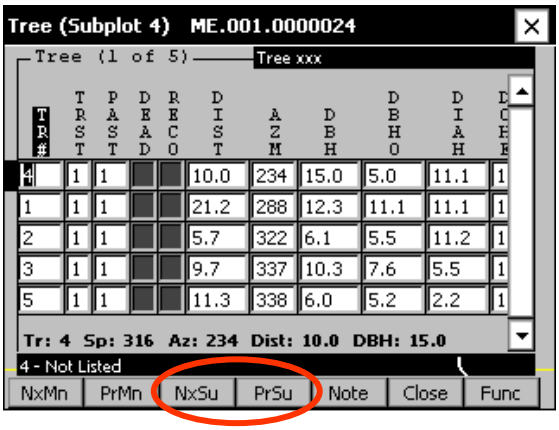
Previous Menu

- Performs in the same manner as Next Menu, going to the previous menu rather than the next menu.
- If the touch screen is not active, the Previous Menu functionality is also available via the [***F3***] key.

Next *Submenu*

- Navigates to the next submenu, such as next tree, next condition, or next subplot.
- Available only on data collection screens that may have multiple records, such as tree or condition.
- If viewing records as a full record, the next submenu will refer to the next record of the active menu screen … so when on the Tree screen the ***NxTr*** button will allow the user to move to the next tree for the current subplot. Note that the button label will change based on the active menu screen … ***NxBn*** if on the Boundary screen, ***NxCo*** if on the Condition scree, and so on. When in grid view, the next submenu will always refer to subplot … so when viewing a grid listing of trees records for one subplot, the user can use the ***NxSu*** button to present the list of tree records for the next subplot.





- When viewing tree records on the Tree screen in full record mode, clicking the ***NxTr*** button while the final tree record is active will add a new tree record. To add a new tree record when viewing in grid mode, navigate to the final existing tree record and press the [***TAB*** ➤] key. This same logic also applies to other multi-record screens … ***NxCo*** will add a new condition, ***NxBn*** will add a new boundary, and so on.
- If the touch screen is not active, the Next Submenu functionality is also available via the [***TAB*** ➤] key.

Previous *Submenu*

- Performs in the same manner as Next Submenu, going to the previous submenu rather than next.
- If the touch screen is not active, the Previous Submenu functionality is also available via the [➤ ***TAB***] key.

Note

- Enter a field text note for the active screen.
- If the touch screen is not active, the Note functionality is also available by pressing the [***CTRL***] + [***N***] keys.

Close

- Click the ***Close*** button to close the current data collection screen and navigate to the main menu.
- When the touch screen is not active, returning to the main menu is also possible via the [***F4***] key.

Functions

- Press the ***Func*** button to access a menu for available data tools and functions.
- If the touch screen is not active, the menu of available data tools and functions is also available via the [***F5***] key.

- The ***Func*** button and [***F5***] key are available on all data collection screens with the exception of Owner.
- For a complete description of all data tools and functions available through the ***Func*** button, please refer to the description provided under the [***F5***] key heading in the previous section of this document entitled "Data Tools, Functions, and Function Keys".

Navigation / Shortcut Keys

During data entry, there are several navigation and shortcut keys that will allow you to move easily between fields on a screen, between records on a multiple-record screen (i.e. different trees on the Tree screen) and between different data entry screens altogether. These keys are especially useful when collecting data in the field, as the touch screen will likely be turned off. Standard navigation keys include the Arrow keys, Enter, Tab, and Back Space:

- Arrow keys ([◄], [►], [▲], [▼]) will navigate between data fields.
- The [***Enter***] key will validate the data entered and navigate to the next data field.
- The [***Tab***] key, right or left, will navigate between records, i.e. Tree #1 to Tree #2.
- The [***BkSp***] key will delete entered text for the active data field.

In addition to standard navigation keys, many shortcut keys are available to immediately access menu item options without having to move through the menu bar system. These include use of the function keys (F1-F5) and 'Ctrl + key' to move between records and between different data entry screens altogether. To access a different data screen or option, you may use the shortcut keys directly, or select the desired screen/option from the Menu Bar. The following is a list of the navigation keys that are available at this time:

Key	Action
BkSp	Delete entered text
Ctrl + A	Data entry options screen
Ctrl + B	Jump to middle of data fields on current screen
Tab Left	Previous record
Tab Right	Next record
Ctrl + F	First record
Ctrl + L	Last record
Ctrl + G	Go to record
Ctrl + C	Next tree number
Ctrl + D	Toggle between single record and grid data entry
Ctrl + H	Home
Ctrl + I	Select subplot
Ctrl + O	Previous subplot
Ctrl + U	Next subplot
Ctrl + S	Save plot
Ctrl + K	Read in GPS file exchange folder coordinates
Ctrl + M	Get slope correction
Ctrl + P	Diameter root collar
Ctrl + N	Note
Ctrl + W	Edit current record
Ctrl + X	Edit current menu
Ctrl + Q	Sort trees by ascending azimuths, trees then saplings
F1	Help
F2	Next menu
F3	Previous menu
F4	Main menu
F5	Functions

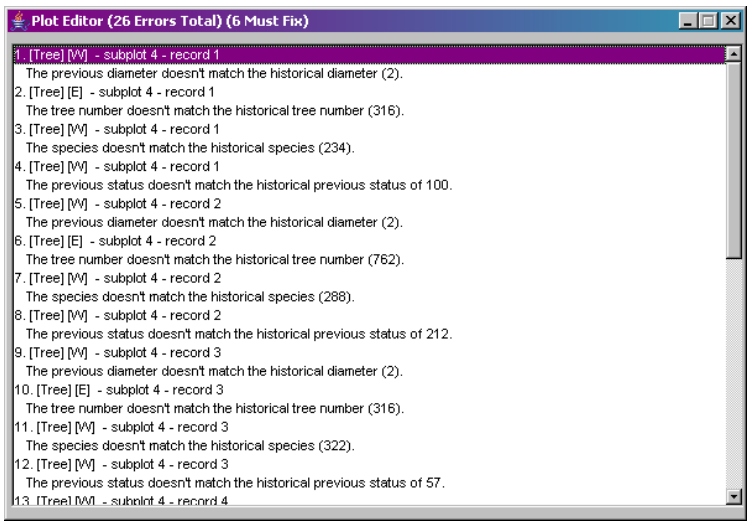
Edit Plot Data

Throughout the data entry process, a number of background edit checks will be occurring while data is entered, including valid value checks and range checks. There are, however, a number of more complicated edit checks that cannot be run until all plot data has been entered. These types of edit checks involve multiple fields, often from multiple data screens, and their relationship to each other. Due to the nature of these edits, the program cannot possibly know when to run them automatically so they must be manually initiated.

Once all data entry has been completed on a plot, run the full suite of edits on the plot:

1. Return to the plot's main menu screen by either pressing the [***F4***] key or by clicking the ***Close*** button on the menu bar at the bottom of a data entry screen.
2. On the main menu screen, press the [***E***] key or click the ***Edit Plot*** button to run all validation edits on all data entry screens for the current plot.

3. A *Plot Editor* screen will appear listing all errors (notated with **[E]**) and warnings (notated with **[W]**) for the plot.



4. Click on any error or warning within the *Plot Editor* window to go directly to the appropriate data entry screen for correction of the error or warning. If the touch screen is disabled, use the [⮝] and [⮟] keys to select the desired error and then press the [***ENTER***] key.

   Note that all errors (notated with **[E]**) *must* be corrected, while warnings (notated with **[W]**) should be reviewed, correcting only if deemed necessary.

5. Once the error is corrected, use the [***F4***] key or the ***Close*** button on the bottom menu bar to return to the error list.

6. If there are more errors remaining on the list, it is highly suggested to close the error list and re-run the edit plot prior to moving on to correct another error. It is not uncommon for the correction of one error to actually correct several other errors, so it really is best to start with a fresh list.

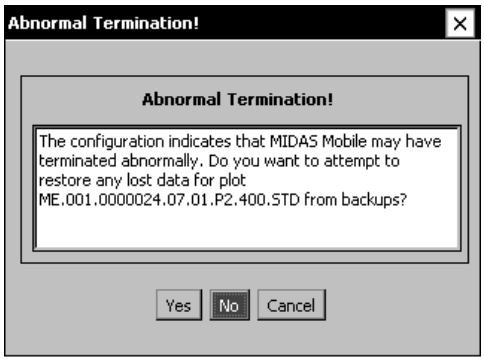
7. Repeat steps 4 through 6 until all must fix (notated with **[E]**) errors have been corrected. It is the decision of the user as to whether or not any warnings (notated with **[W]**) should be fixed.

Note that if the list contains any errors (notated with **[E]**), the plot may be transmitted to the PC but it will not be able to be uploaded to the database. The transmission of plots containing errors should be reserved for unusual circumstances, such as a problem in the MIDAS edit checks that has not yet been resolved. The general rule of thumb is that all errors should be resolved prior to transmitting a plot to the PC.

Data Restore

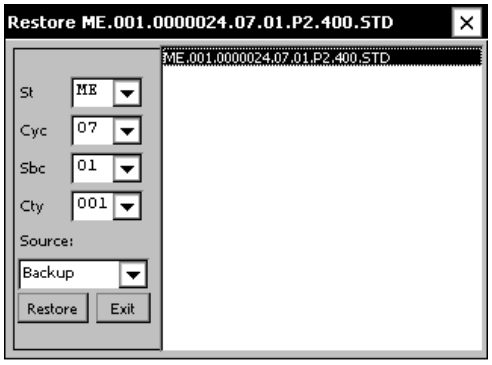
In the event of some type of critical error, such as a machine crash or battery failure, plot data may need to be restored. In most cases, MIDAS will automatically initiate the restore however a button is available on the main *Plot Task* screen to initiate the restore manually.

1. If MIDAS was closed due to some type of critical error, the following message will likely appear when the program is next opened … click ***Yes*** to restore any lost data from backups.

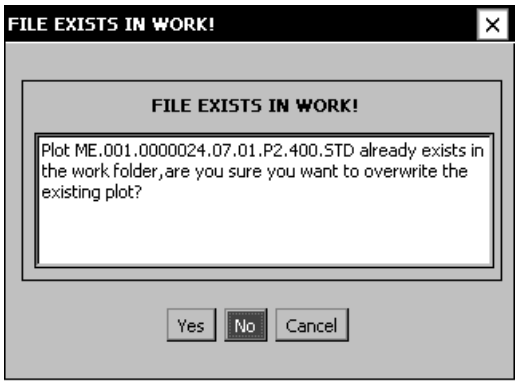


   If this message does not automatically appear, you may manually initiate a data restore by clicking the ***Restore Data*** button on the main *Plot Task* screen.

2. A list of plots available for recovery will be presented … use the selection boxes on the left side of the screen to narrow down the list if necessary, then click to highlight the desired plot and click the ***Restore*** button to begin the recovery.



3. In all likelihood, the file being restored will already exist in the work folder. This file may not contain the most recently entered data fields and should be replaced by the backup file … click ***Yes*** to replace the existing file.



4. A message will appear indicating that the plot was restored to the work folder … click ***OK***.
5. Click the ***Exit*** button to close the *Restore* screen.
6. On the main *Plot Task* screen, click the ***Open Work Plot***, then select and open the restored plot file.

Processing Completed Plots

Once a plot file is completed on the PDR, it will need to undergo a multi-step process prior to being finalized and submitted to the database. This section will provide a detailed outline and explanation of those steps.

Get Completed Plots from the PDR

When plot data is completed, it is necessary to transfer the plot file from the PDR to the PC so that the file may be transmitted/uploaded to the database.

1. On the PDR, close the current MIDAS Mobile application by returning to the main Plot Task screen and either clicking the ***Exit Program*** button or selecting ***Exit*** from the ***File*** menu.

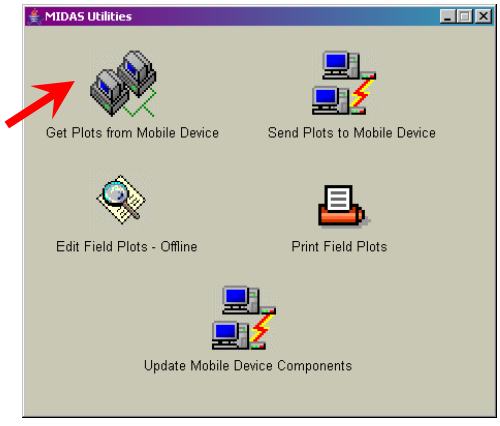
   Note: Return to the main Plot Task screen from within an open plot file by navigating to the main menu screen via the [***F4***] key or the ***Close*** button on the menu bar at the bottom of any data entry screen, then clicking the ***Exit Plot*** button.

2. If not already connected, establish a connection between the PDR and PC via ActiveSync … refer to the section of this guide entitled "Establishing an ActiveSync Connection" for detailed instruction on how to connect via ActiveSync.

3. Make sure that the PDR is plugged into an external power source (rather than running on batteries) to prevent it from powering off during file transfer.

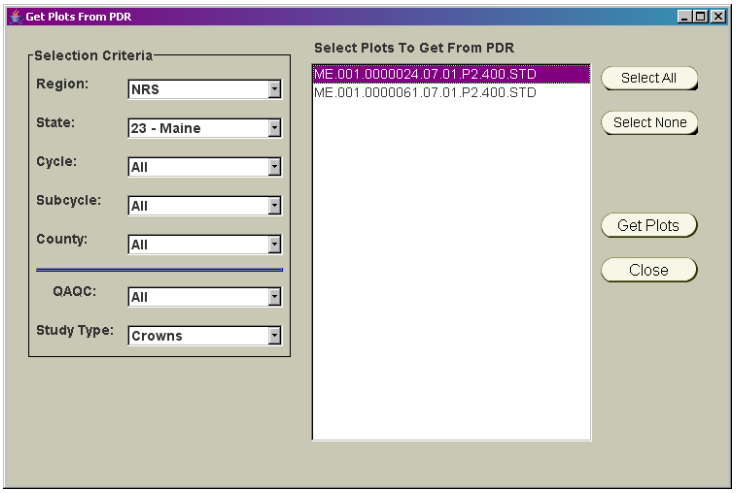
4. Open the *MIDAS Control Panel* on the PC by clicking on the ***MIDAS Contol Panel*** icon on the desktop.

5. In the *MIDAS Control Panel* window, click the ***Get Plots from Mobile Device*** button.



6. After a few seconds, a *Get Plots from PDR* window will open … define the ***Plot Selection*** criteria by selecting a region from the ***Region*** drop-down

box, then selecting a state from the ***State*** drop-down box. Note that when a selection is made in one box, the selections in the remaining boxes will be automatically updated to reflect the available data based on the values already selected.

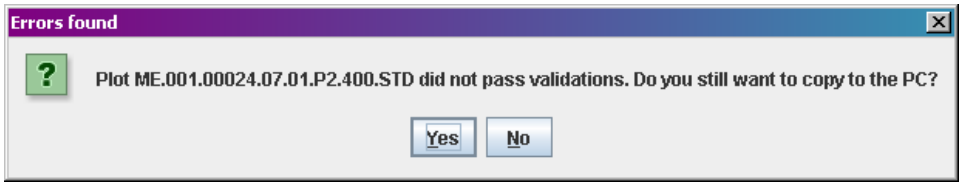


7. To further refine the selection of which plot files are desired, select values from the remaining drop-down boxes to meet the selection criteria. Note that the ***Cylce***, ***Subcycle***, ***County*** and ***QAQC*** drop-down boxes will allow for the selection of *All*.

8. Once the desired selection criteria have been selected, a list of available plots based on that criteria will be presented. Click to highlight the desired plot or plots, using the [***CTRL***] key to select multiple plots … then click the ***Get Plots*** button to initiate the transfer of the selected plots from the PDR to the PC.

9. In the *Get Plots from PDR* window, processing messages will be displayed in the lower left corner to inform the user of progress … messages will include (but are not limited to) process descriptions such as checking for PDR updates, retrieving plot files, and validating plot files.

10. If a plot file contains must fix errors, the validation will fail and a message will appear asking if the file should be copied to the PC … click ***Yes*** or ***No*** to continue.



Note that while files with must fix errors may be copied from the PDR to the PC, they may not be uploaded to the database.

11. A message will appear confirming the number of plot file(s) that have been copied successfully to the PDR … click ***OK***.

In addition to retrieving selected plots from the PDR, this process will also automatically send any new MIDAS components (including configuration files, program files, and ActiveSync updates) to the PDR to ensure that the program is current and up-to-date.

Edit Completed Plots

Once the completed plot file(s) have been retrieved from the PDR they can be edited on the PC or on the MIDAS website. While both edits run the same edits that are run on the PDR in the field, the website edit will also include additional database edits. The PC based edit allows Supervisors and Crew Leads to edit the crew data offline before it is loaded into the database.

The following steps will outline the editing of a single plot file. For greater efficiency, the edit process has been designed to edit multiple plots together in the same edit session. Tips on the editing of multiple plots will follow the single plot outline.

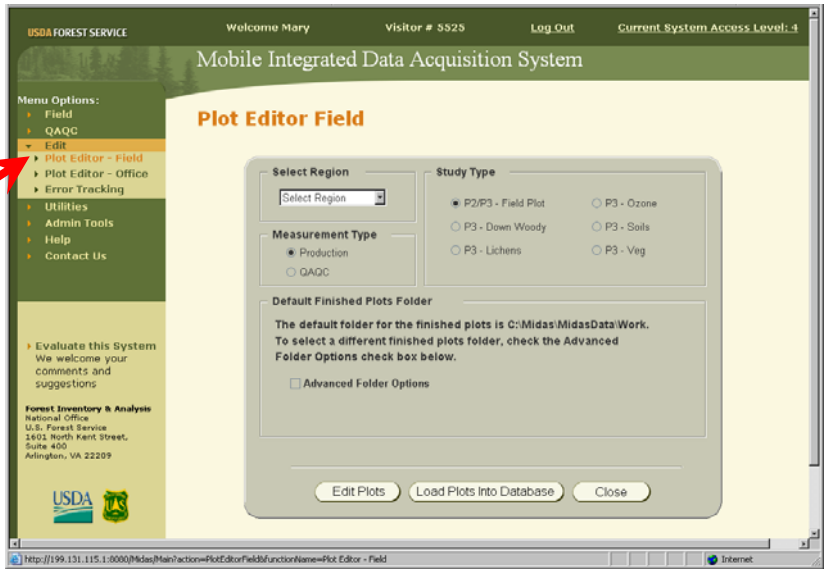
1. Launch the desired plot editor:

   PC Based Edits (Offline)

   a. Click on the ***MIDAS Contol Panel*** icon on the PC desktop to open the *MIDAS Control Panel* … then click the ***Edit Field Plots - Offline*** button to launch the plot editor screen.

   Website Edits

   a. Once logged in on the MIDAS website, click on ***Edit > Plot Editor – Field*** under *Menu Options* on the left side of the web page.



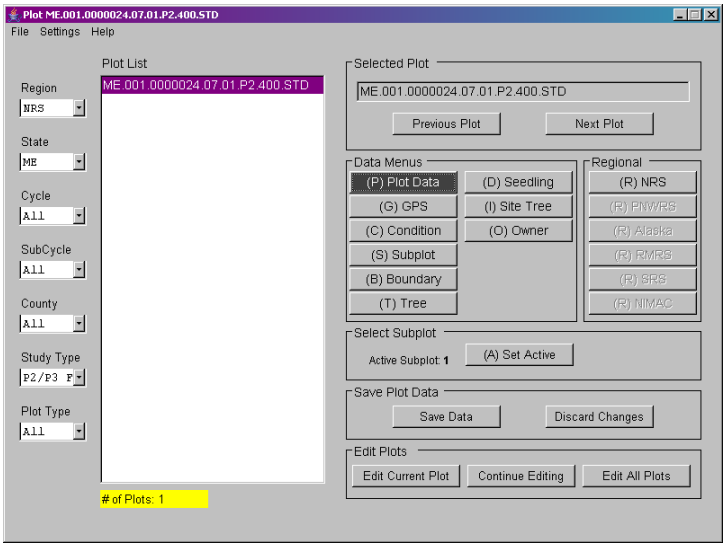
b. On the Plot Editor Field screen, specify a Region, Study Type, and Measurement Type … then click the ***Edit Plots*** button.

c. A status message will appear at the bottom of the Plot Editor Field screen indicating that MIDAS is accessing historical data from the database … when finished, the plot editor screen will be launched.

2. In the Plot screen, select a region from the ***Region*** drop-down box on the left side of the screen … a list of all available plots for that region will be displayed in the *Plot List*.

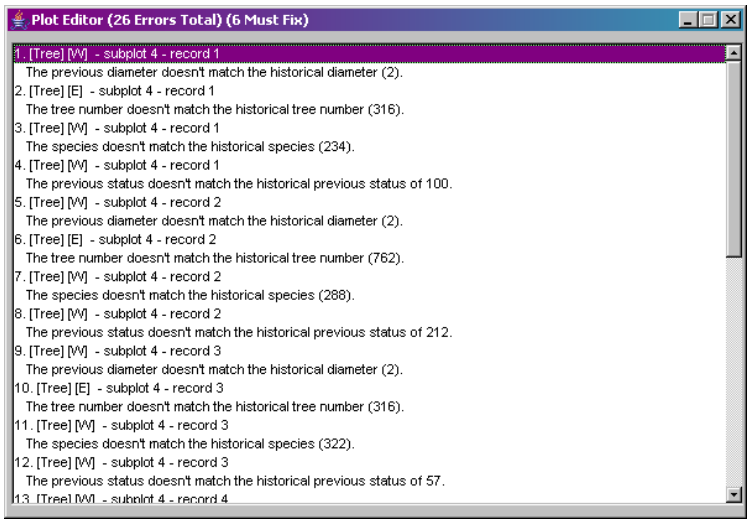
3. To further refine the list of available plot files, select values as appropriate from the remaining drop-down boxes along the left side of the screen, including state, cycle, study type, etc. Note that when a selection is made in one box, the selections in the remaining boxes will be automatically updated to reflect the available data based on the values already selected.

4. Click on the plot name in the *Plot List* to select the desired plot … the plot file will load and the name of the selected plot will appear in the *Selected Plot* text box.



5. Clicking on any of the *Data Menus* or *Regional* buttons will present a data entry screen similar to the PDR program.

6. To run extensive edits on the plot data, click the ***Edit Current Plot*** button in the *Edit Plots* box … a *Plot Editor* window will appear listing all errors (notated with **[E]**) and warnings (notated with **[W]**) for the plot.



7. Click on any error or warning within the *Plot Editor* window to be taken directly to the appropriate data entry screen for correction of the error or warning. Note that all errors (notated with **[E]**) *must* be corrected, while warnings (notated with **[W]**) should be reviewed, correcting only if deemed necessary.
8. Once an error or warning is corrected, click the ***Edit Current Plot*** button again to re-run the edits. It is not necessary to close the data entry screen or *Plot Editor* window first … they will be closed automatically and a new *Plot Editor* window will be displayed presenting the new edit results.
9. Once all data corrections have been made … click the ***Save Data*** button in the *Save Plot Data* box. If, for some reason, the data corrections should not be saved … click the ***Discard Changes*** button in the *Save Plot Data* box.
10. If finished editing plots, close the Plot screen.

For efficiency, this process has been designed to allow for editing multiple plots together in the same session. The following actions are available to that end:

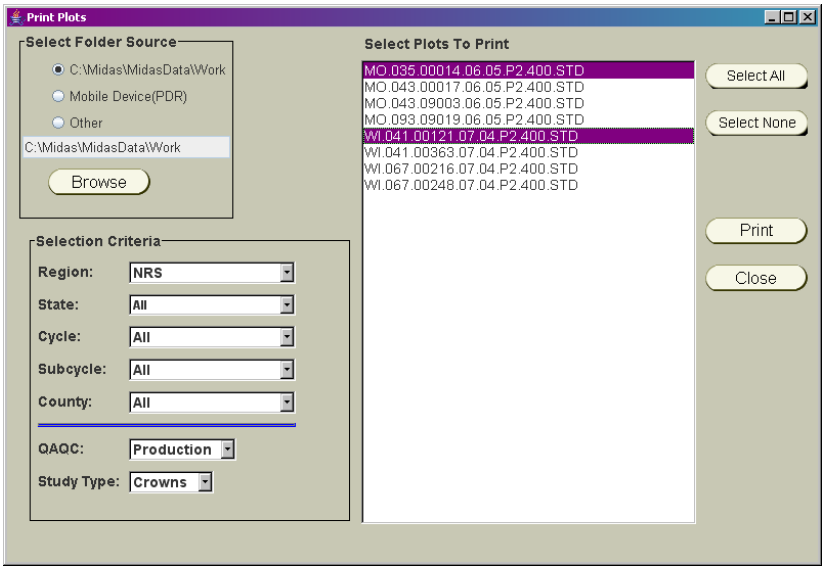
- Click on the ***Previous Plot*** or ***Next Plot*** buttons in the *Selected Plot* box to scroll through the list of plots in the *Plot List*.
- In the *Edit Plots* box, clicking the **Edit Current Plot** button will run the validation checks on the active plot while clicking the ***Edit All Plots*** button will start at the first plot on the list in the *Plot List* and continue down the list editing plots until a plot is located with an error or warning message. Clicking the ***Continue Editing*** button will continue down the list editing until another plot is located with an error or warning message.

Print Completed Plots

A utility for printing a hardcopy of plots is available via the MIDAS Control Panel on the PC. This utility provides for the creation of a hardcopy backup of completed plots, as well as the ability to print and review plot data to examine for accuracy.

1. Click on the ***MIDAS Contol Panel*** icon on the PC desktop to open the *MIDAS Control Panel* … then click the ***Print Field Plots*** button.

2. In the *Print Plots* screen, select a new folder source if necessary then use the drop-downs in the ***Selection Criteria*** box to narrow down the list of plots in the ***Select Plots To Print*** list.



   Note that if there is a need to print plot data to examine it for accuracy prior to the plot being transferred to the PC, select the ***Mobile Device (PDR)*** option in the ***Select Folder Source*** box.

3. Click to highlight the desired plot or plots for printing, using the [***CTRL***] key to select multiple plots, or clicking the ***Select All*** button to select all of the listed plots.

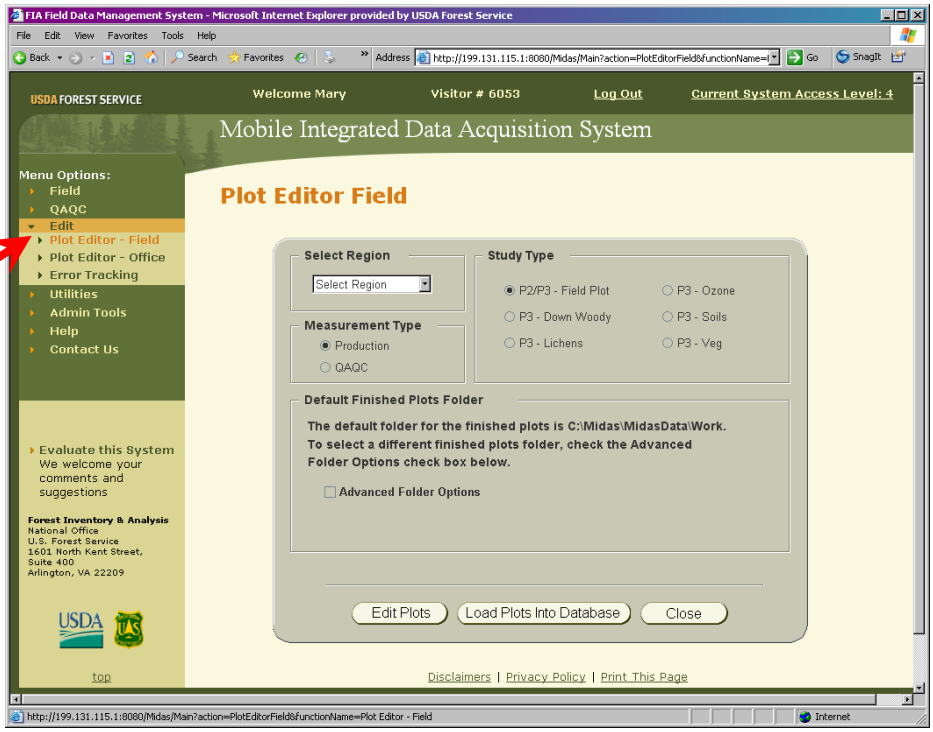
4. When all desired plots have been highlighted, click the ***Print*** button to open the system print tool for plot printing.

5. Use the system print tool to select and print to the desired printer.

Load Completed Plots into Raw Database Tables

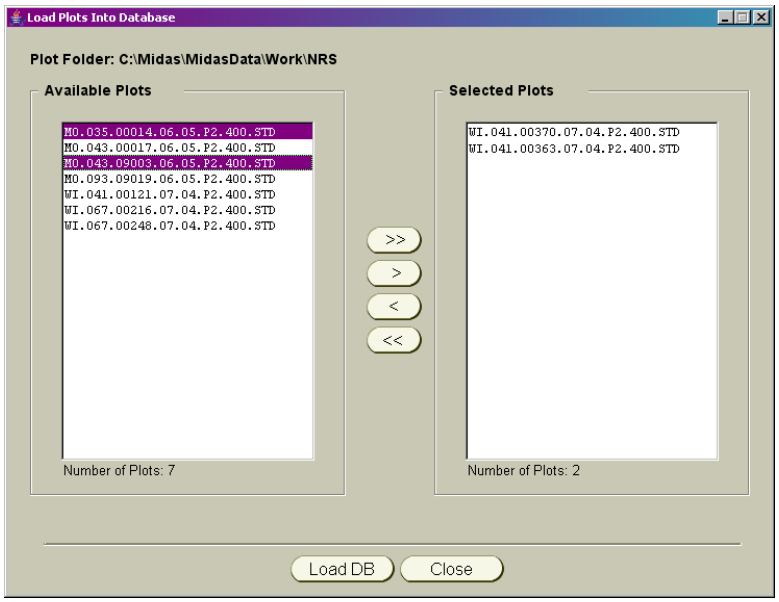
After completed plots have been fully edited as described in the section of this guide entitled “Edit Completed Plots”, they should be loaded into the database. The raw database stores the field data for future reference … the raw database tables are intended to preserve the field collected data as it was prior to office edits by admin users.

1. Once logged in on the MIDAS website, click on ***Edit > Plot Editor – Field*** under *Menu Options* on the left side of the web page.



2. On the *Plot Editor Field* screen, specify a Region, Study Type, and Measurement Type … then click the ***Load Plots into Database*** button.

3. In the *Load Plots Into Database* screen, select the plots to be loaded into the database from the list of ***Available Plots***. To select all of the listed plots, click the **>>** button. Otherwise, click to highlight the desired plots, using the CTRL key to select multiple plots … then click the **>** button to move the selected plots to the ***Selected Plots*** list. To remove any undesired plots from the ***Selected Plots*** list, click to highlight the plot then click the **<** button. The **<<** button will remove all plots from the ***Selected Plots*** list.

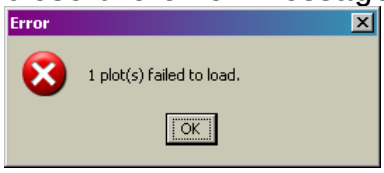


4. Click the ***Load DB*** button.

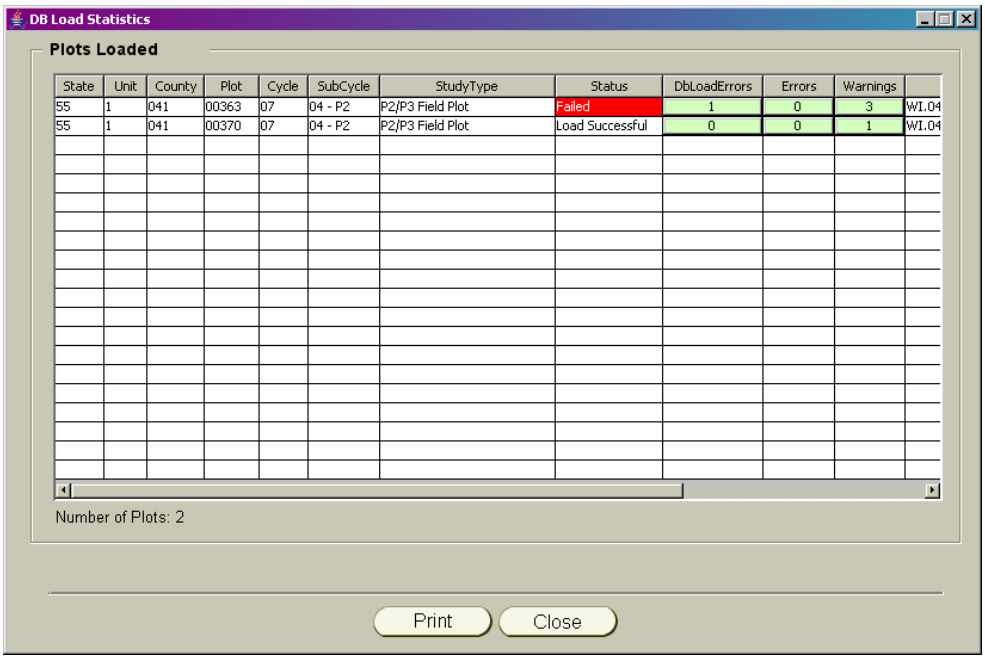
5. A warning message will appear to indicate that the plots will be loaded into the Field database tables … click ***Continue*** to proceed with the data load.

6. Click ***OK*** when a message appears indicating that MIDAS is finished loading plots into the database.

7. Despite the "finished" message, an error message may be presented if any problems should occur in loading the data … click the ***OK*** button to close the error message.

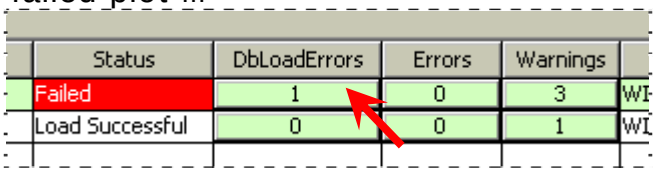


8. A status report will be displayed, listing each plot that was included in the list of selected plots to load along with the status of the load for each plot.

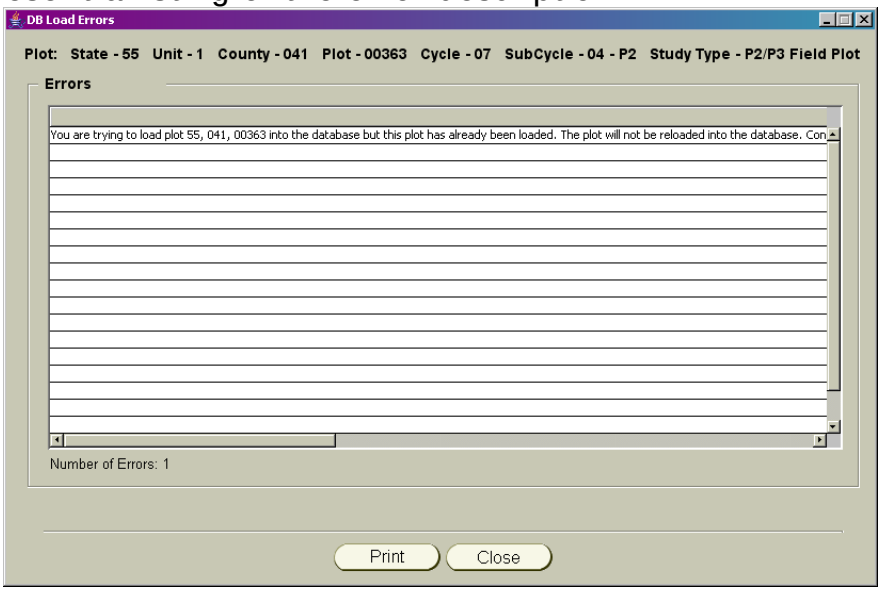


9. If any plots are displayed with *Failed* highlighted in red, click on the specific count included in any of the error columns for that plot to determine what caused the failure for that plot.

    a. For example, click on the DbLoadErrors column with a count of 1 for the failed plot …



    … to present a listing of the error description:



b. Possible errors that may cause a load to fail include the plot having been previously loaded or the plot having a “Must Fix Error” … all errors must be resolved before the plot can be loaded.

   Note that if a plot failed because it has already been loaded into the database and there truly is a need to replace the previously loaded plot, contact a MIDAS Administrator to have the previously loaded plot deleted. This task is available via the MIDAS website by selecting ***Delete Field Plot from Database*** from ***Admin Tools*** under the *Menu Options* on the left side of the screen, however Administrative level privileges are required.

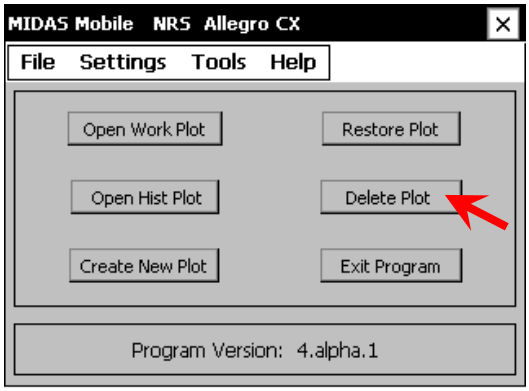
10. Use the ***Close*** button to close the status report or print a copy of the plot list using the screen’s ***Print*** button.

11. Once the plot or plots have been loaded into the database, the completed plot(s) may be removed from the list of plots that appear in the MIDAS Mobile application on the PDR … a backup file will remain on the PDR but the data will not be visible for continued data entry.

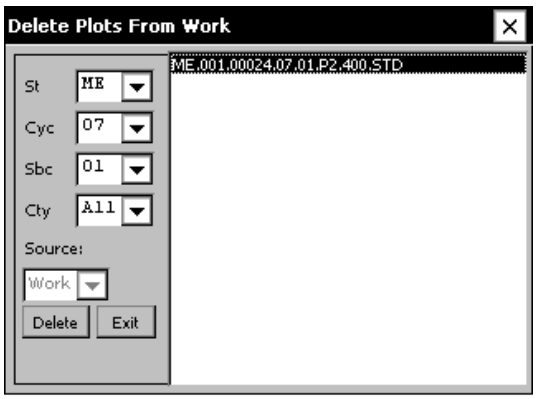
    a. On the PDR, open the MIDAS Mobile application or (if already open) navigate to the main Plot Task screen.

       Note: To navigate to the main Plot Task screen from within an open plot file, return to the main menu screen via the [***F4***] key or the ***Close*** button on the menu bar at the bottom of any data entry screen then click the ***Exit Plot*** button.

    b. On the main Plot Task screen, click the ***Delete Plot*** button.

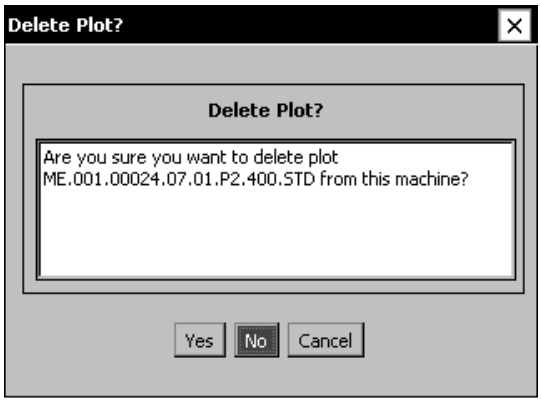


c. In the ***Delete Plots*** screen, use the drop-down boxes on the left side of the screen to narrow down the list of plots in the plot list.



d. Click to highlight the desired plot for deletion then click the ***Delete*** button.

e. When prompted to confirm plot deletion, click the ***Yes*** button to proceed.



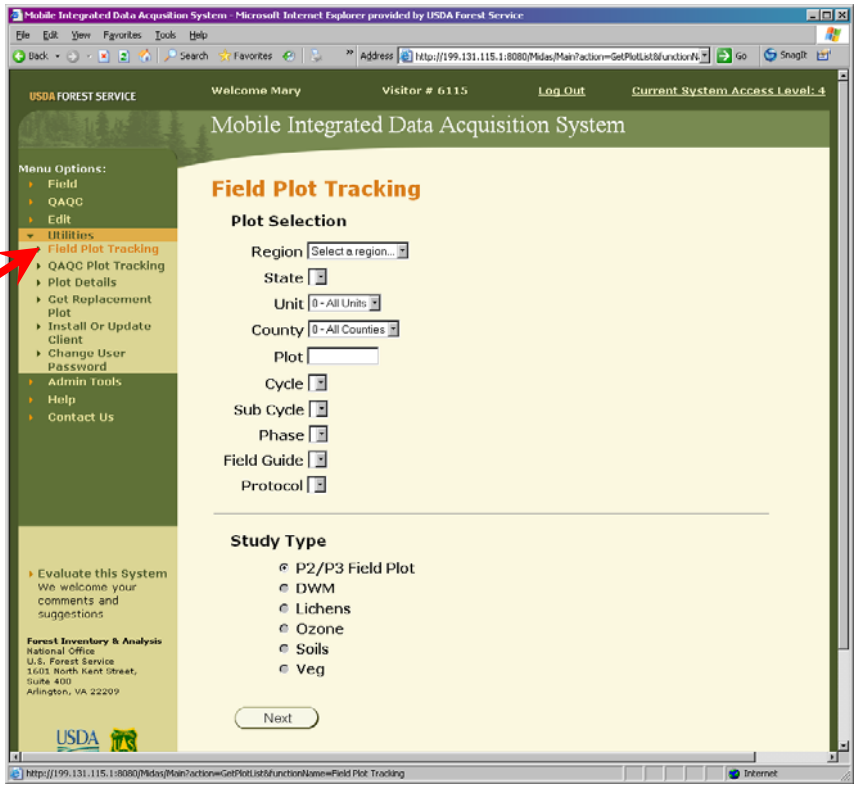
f. A message will appear indicating that the plot was successfully deleted … click the ***OK*** button.

g. Click the ***Exit*** button to close the *Delete Plots* screen.

Plot Tracking

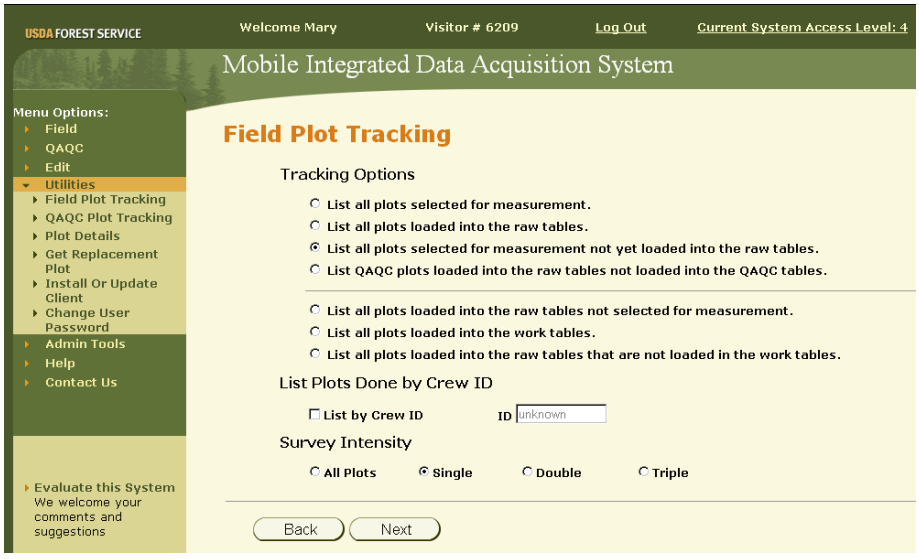
The MIDAS web site has a plot tracking feature that provides crews with access to the list of plots selected for field measurement. Using this feature, crews will be able to retrieve real-time information from the database concerning the status of each plot, which plots have been completed and loaded into the database. The plot tracking feature has a number of filters to customize what information the user is seeking and how it is presented.

1. Once logged in on the MIDAS website, click on ***Utilities > Field Plot Tracking*** under *Menu Options* on the left side of the web page.

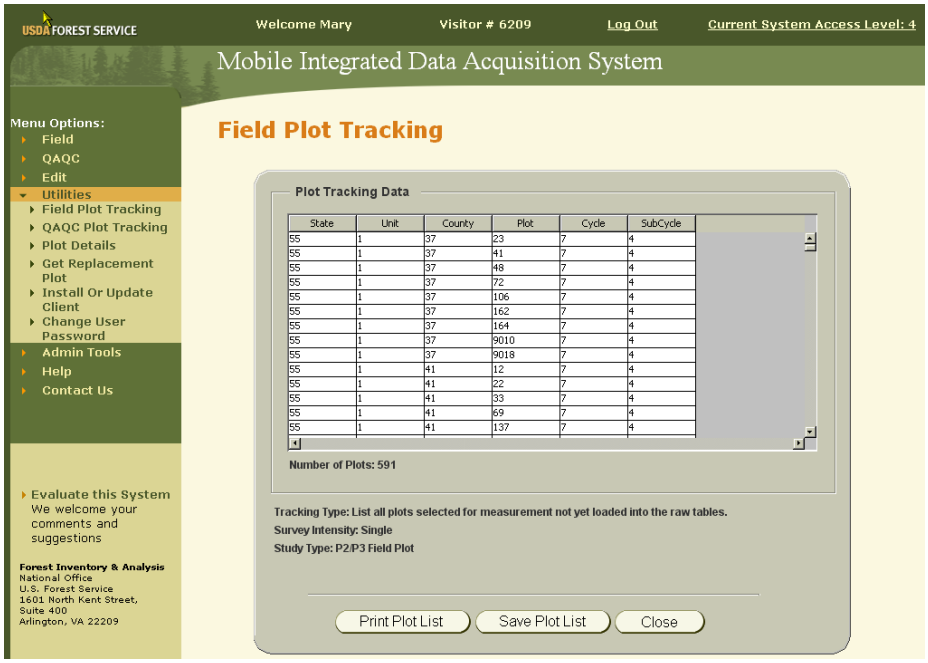


2. On the *Field Plot Tracking* screen, specify the ***Study Type*** and ***Plot Selection*** details (such as Region, State, etc) as needed to narrow down the list of plots … then click the ***Next*** button.

3. Select the desired tracking options … then click the ***Next*** button.



4. A spreadsheet-like screen will be presented listing all plots that meet the specified selection criteria as summarized below the list of plots.



5. Use the ***Print Plot List*** and/or ***Save Plot List*** buttons to print a hard copy of the resulting plot list or to save the list to an *html* formatted file … click the ***Close*** button when finished.

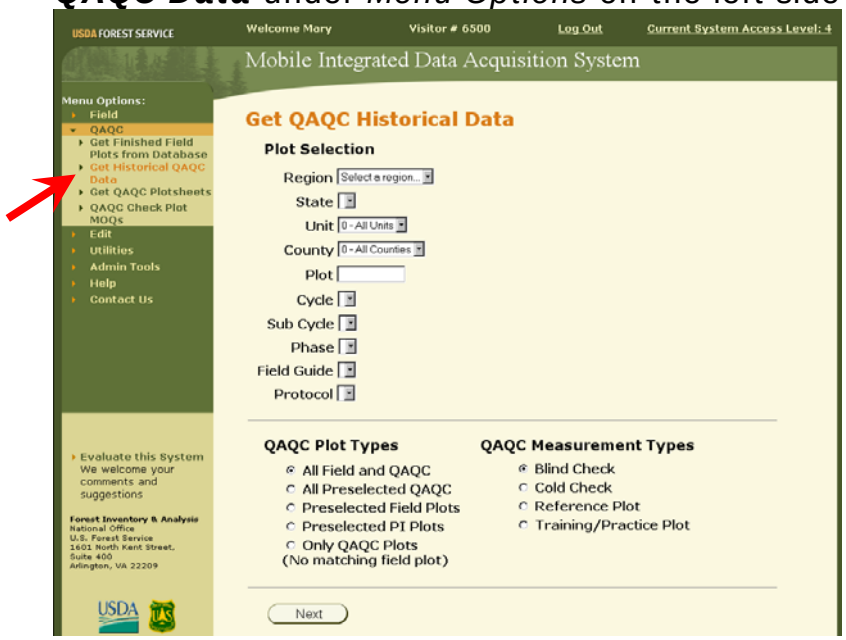
QAQC Functions

Many of the functions performed on/with a QAQC plot file are actually very similar to those of a regular plot file. A QAQC history file must be retrieved from the database and QAQC data is collected on the PDR using the MIDAS Mobile program.

Retrieve Historical Data from the Database

Just as with regular plots, MIDAS requires a base QAQC file (referred to as a *historical file*) for each QAQC plot that is to be measured. The historical file is pre-populated with basic plot id information as well as available history data in the case of remeasure plots.

1. Once logged in on the MIDAS website, click on ***QAQC > Get Historical QAQC Data*** under *Menu Options* on the left side of the web page.

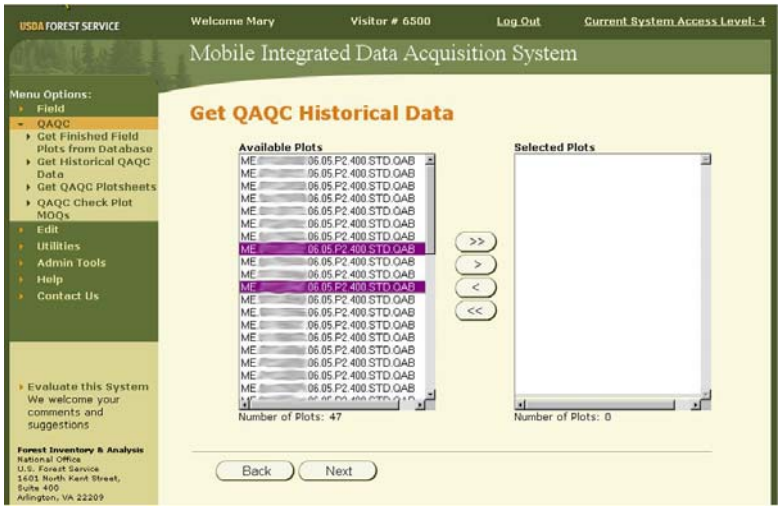


2. On the *Get QAQC Historical Data* screen, define the ***Plot Selection*** criteria by selecting a region from the ***Region*** drop-down box, then selecting a state from the ***State*** drop-down box. Note that when a selection is made in one box, the selections in the remaining boxes will be automatically updated to reflect the available data based on the values already selected.

3. To further refine the selection of which plot files are desired, select values from the remaining drop-down boxes to meet the selection criteria. Note that the ***Unit*** and ***County*** drop-down boxes will allow for the selection of *All*.

4. Select a QAQC Plot Type and a QAQC Measurement Type … then click the ***Next*** button.

5. A list of ***Available Plots*** based on the specified criteria will be presented. To select all of the listed plots, click the **>>** button. Otherwise, click to highlight the desired plots, using the CTRL key to select multiple plots … then click the **>** button to move the selected plots to the ***Selected Plots*** list. To remove any undesired plots from the ***Selected Plots*** list, click to highlight the plot then click the **<** button. The **<<** button will remove all plots from the ***Selected Plots*** list.



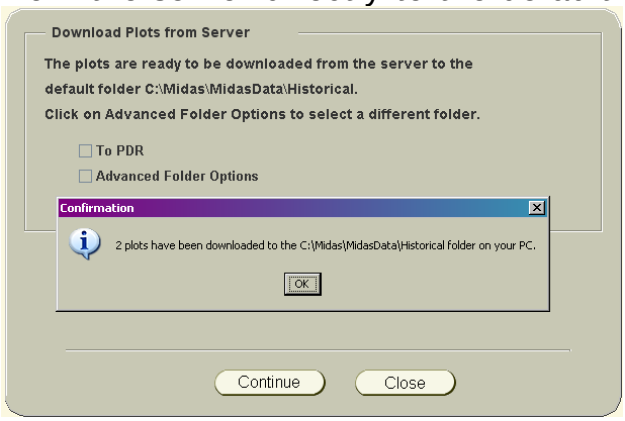
6. Click the ***Next*** button to submit the list of selected plots and proceed to the *Download Plots from Server* screen.

7. Upon entering the *Download Plots from Server* screen, the plots are ready to be downloaded directly to a default directory on the PC. The screen does, however, offer other options:

   - To select an alternate location on the PC for the downloaded history files, click to select the ***Advanced Folder Options*** option and select the desired location.

   - Although not the preferred method, it is also possible to send the downloaded history files to the PDR in addition to the PC by clicking to select the ***To PDR*** option. It is recommended, however, to download to the PC only, then use the process described in the section entitled "Send QAQC Plot to the PDR" instead.
     Note: if selecting the PDR option and not already connected, establish a connection between the PDR and PC via ActiveSync … refer to the section of this guide entitled "Establishing an ActiveSync Connection" for detailed instruction on how to connect via ActiveSync.

8. Once all desired download options are selected, click the ***Continue*** button. If no options have been selected, the plots will be downloaded from the server directly to the default directory on the PC.

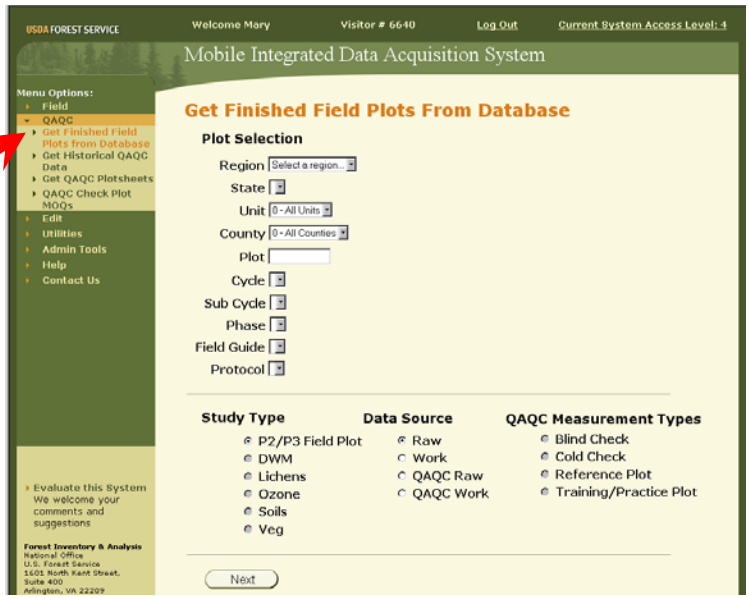


9. A message will appear confirming that the plot files have been downloaded … click ***OK***.

Retrieve Completed Field Plot Data from the Database

When doing a QAQC plot, it may be advantageous to download the completed regular plot file from the database so that the data can be printed and easily compared for scoring purposes. The MIDAS website provides just such a utility. *Note that Level 2 access is required for this utility*.

1. Once logged in to the MIDAS website, click on ***QAQC > Get Finished Field Plots From Database*** under *Menu Options* on the left side of the web page.



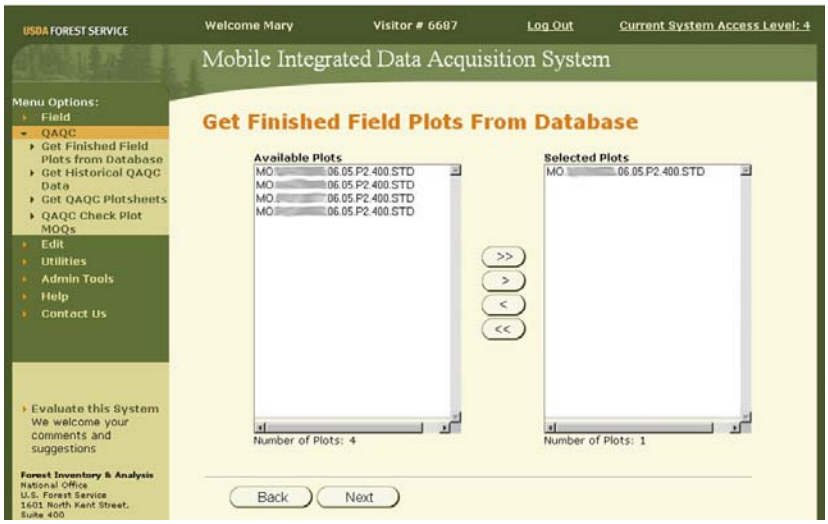
2. On the *Get Finished Field Plots From Database* screen, define the ***Plot Selection*** criteria by selecting a region from the ***Region*** drop-down box, then selecting a state from the ***State*** drop-down box. Note that when a selection is made in one box, the selections in the remaining boxes will be automatically updated to reflect the available data based on the values already selected.

3. To further refine the selection of which plot files are desired, select values from the remaining drop-down boxes to meet the selection criteria. Note that the ***Unit*** and ***County*** drop-down boxes will allow for the selection of *All*.

4. Select a Study Type, Data Source, and a QAQC Measurement Type … then click the ***Next*** button.

5. A list of ***Available Plots*** based on the specified criteria will be presented. To select all of the listed plots, click the **>>** button. Otherwise, click to highlight the desired plots, using the CTRL key to select multiple plots … then click the **>** button to move the selected plots

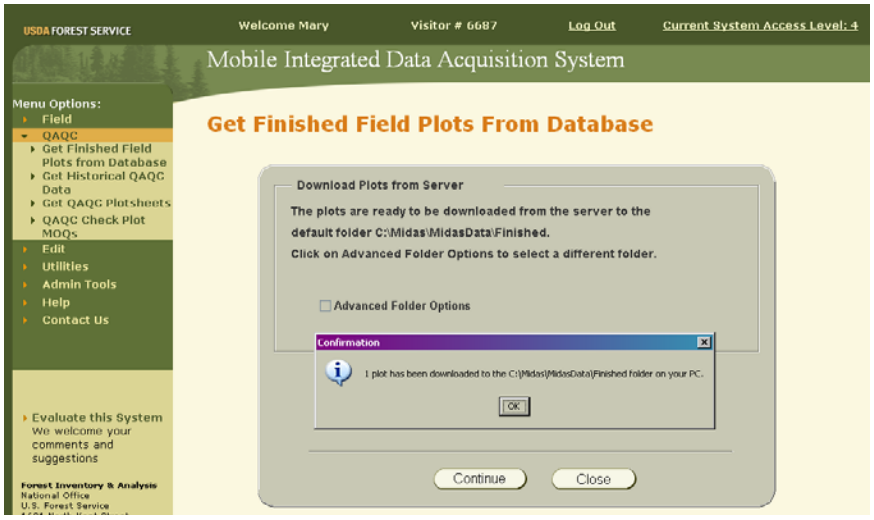
to the ***Selected Plots*** list. To remove any undesired plots from the ***Selected Plots*** list, click to highlight the plot then click the **<** button. The **<<** button will remove all plots from the ***Selected Plots*** list.



6. Click the ***Next*** button to submit the list of selected plots and proceed to the *Download Plots from Server* screen.

7. Upon entering the *Download Plots from Server* screen, the plots are ready to be downloaded directly to a default directory on the PC. The screen does offer the option to select an alternate location on the PC for the downloaded plot files by clicking to select the ***Advanced Folder Options*** option and selecting the desired location.

8. Click the ***Continue*** button. The QAQC plotsheets will be downloaded from the server directly to either the default directory on the PC or to another directory on the PC as specified as an advanced folder option.



9. A message will appear confirming that the plot(s) have been downloaded … click ***OK*.**

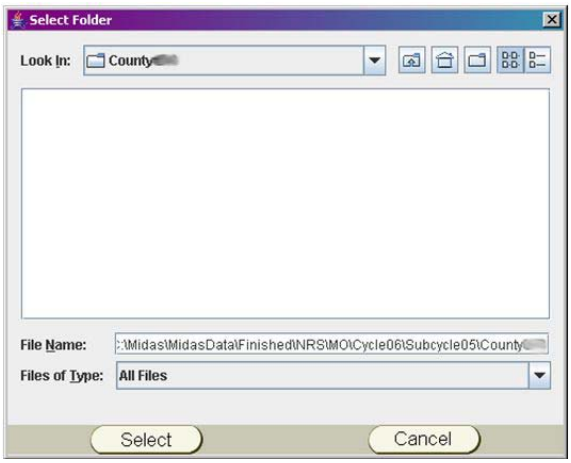
10. Close or minimize the MIDAS website window.

11. Click on the ***MIDAS Contol Panel*** icon on the PC desktop to open the *MIDAS Control Panel* … then click the ***Print Field Plots*** button.

12. In the *Print Plots* screen, click the ***Other*** option in the ***Select Folder Source*** box, then click the ***Browse*** button.

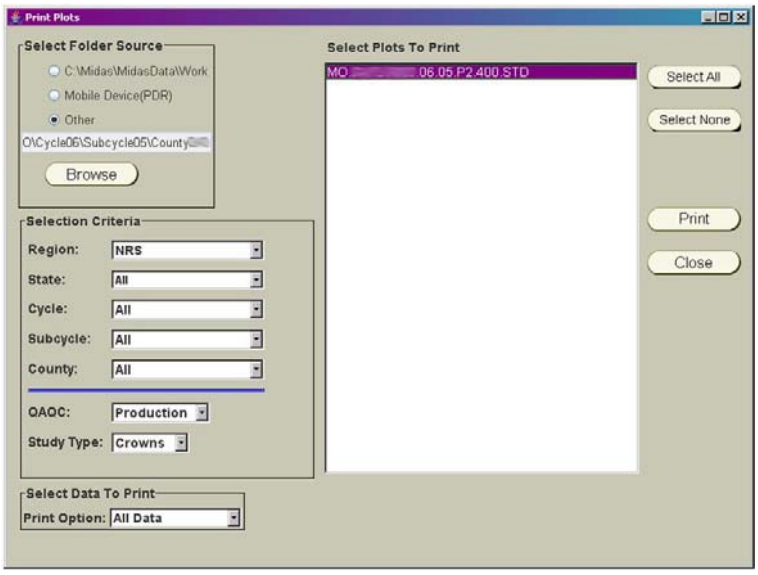
13. In the ***Select Folder*** window, navigate to the downloaded plot file(s) … if the default download location was used, they will be in a subfolder of the C:\Midas\MidasData\Finished\ folder. For instance, the plot file used as an example here (MO.0xx.0xxxx.06.05.P2.400.STD) would be found at C:\Midas\MidasData\Finished\NRS\MO\Cycle06\Subcycle05\County0xx\.

    Note that you will not see the files listed at this point, you must just be aware of where the file should be.



14. Click the ***Select*** button.

15. In the *Print Plots* screen, use the drop-downs in the ***Selection Criteria*** box to narrow down the list of plots in the ***Select Plots To Print*** list. Be sure that "*Production*" has been selected for the QAQC drop-down box.



16. Click to highlight the desired plot for printing, then click the ***Print*** button.

17. The ***Close*** button will be temporarily disabled while the plot prints. When printing is complete, the ***Close*** button will be enabled … click the ***Close*** button.

Send QAQC Plots to the PDR

It may be possible that the QAQC history files have been downloaded from the database to the PC, but have not been sent to the PDR. This would occur if the ***To PDR*** option was not selected when the QAQC plots were originally downloaded from the database, as described in Step 7 of "Retrieve Historical Data from the Database" in the *QAQC Functions* section of this document. If this is the case, the QAQC history files will need to be sent from the PC to the PDR.

1. On the PDR, close the current MIDAS Mobile application by returning to the main Plot Task screen and either clicking the ***Exit Program*** button or selecting ***Exit*** from the ***File*** menu.

   Note: Return to the main Plot Task screen from within an open plot file by navigating to the main menu screen via the [***F4***] key or the ***Close*** button on the menu bar at the bottom of any data entry screen, then clicking the ***Exit Plot*** button.

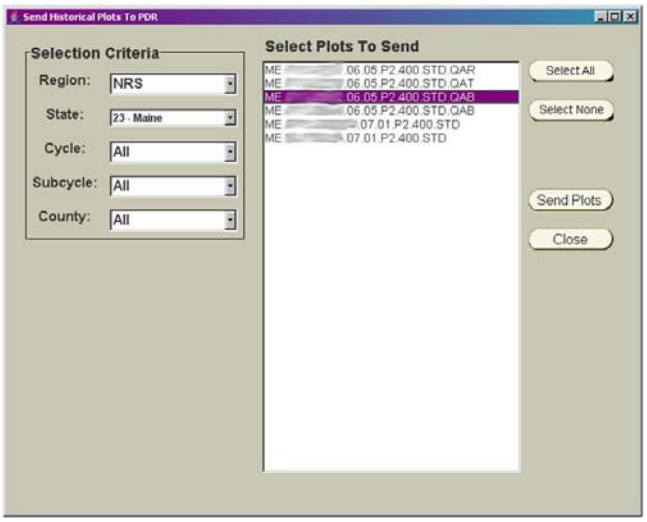
2. If not already connected, establish a connection between the PDR and PC via ActiveSync … refer to the section of this guide entitled "Establishing

an ActiveSync Connection" for detailed instruction on how to connect via ActiveSync.

3. Open the *MIDAS Control Panel* on the PC by clicking on the ***MIDAS Contol Panel*** icon on the desktop.

4. In the *MIDAS Control Panel* window, click the ***Send Plots to Mobile Device*** button.

5. After a few seconds, a *Send Historical Plots to PDR* window will open … define the ***Plot Selection*** criteria by selecting a region from the ***Region*** drop-down box, then selecting a state from the ***State*** drop-down box. Note that when a selection is made in one box, the selections in the remaining boxes will be automatically updated to reflect the available data based on the values already selected.



6. To further refine the selection of which plot files are desired, select values from the remaining drop-down boxes to meet the selection criteria. Note that the ***Cylce***, ***Subcycle*** and ***County*** drop-down boxes will allow for the selection of *All*.

7. Once the desired selection criteria have been submitted, a list of available plots based on that criteria will be presented. Click to highlight the desired plot or plots, using the CTRL key to select multiple plots.

   Note that both QAQC and regular field plots may be listed … QAQC plots may be differentiated by looking for the .QA* extension on the end of the plot name.

8. Click the ***Send Plots*** button to initiate the transfer of the selected QAQC plots to the PDR.

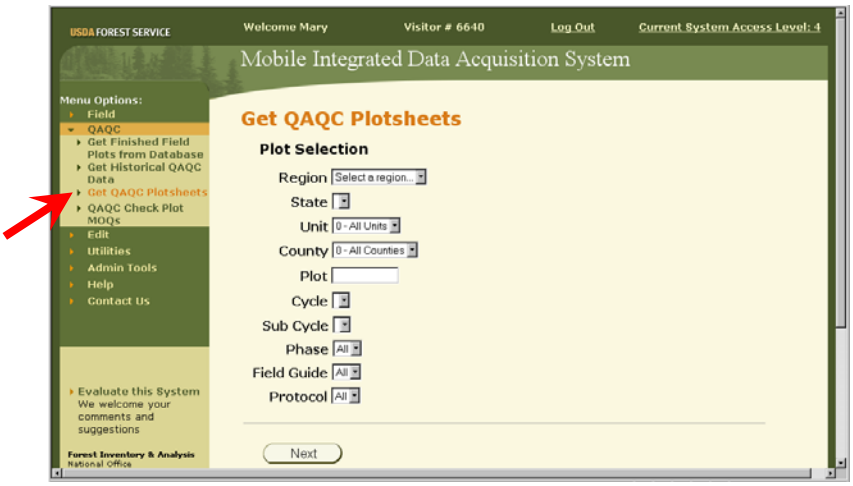
9. A message will appear confirming that the QAQC plot file(s) have been copied to the PDR … click ***OK***.

In addition to sending over the selected QAQC history file(s) to the PDR, this process will also automatically send any new MIDAS components (including configuration files, program files, and ActiveSync updates) to ensure that the program is current and up-to-date.

Printing QAQC Plotsheets

Some QAQC crews may wish to have a hardcopy QAQC plotsheet. To accommodate this, the MIDAS website has a function that will print the QAQC plotsheet.

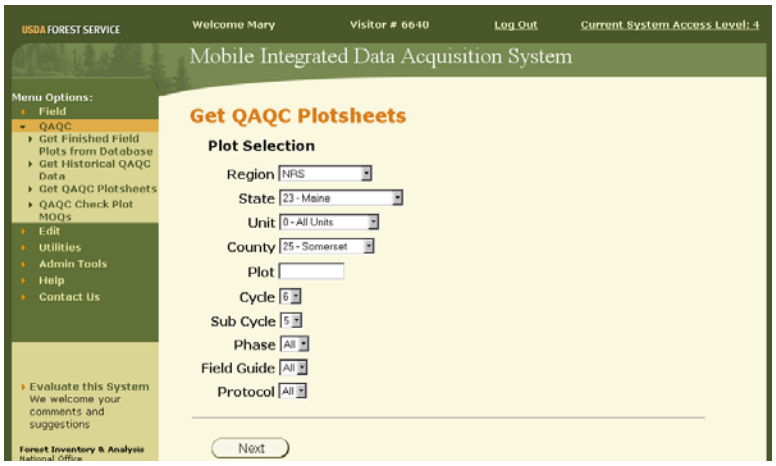
1. Once logged in on the MIDAS website, click on ***QAQC > Get QAQC Plotsheets*** under *Menu Options* on the left side of the web page.



2. On the *Get QAQC Plotsheets* screen, define the ***Plot Selection*** criteria by selecting a region from the ***Region*** drop-down box, then selecting a state from the ***State*** drop-down box. Note that when a selection is made in one box, the selections in the remaining boxes will be automatically updated to reflect the available data based on the values already selected.

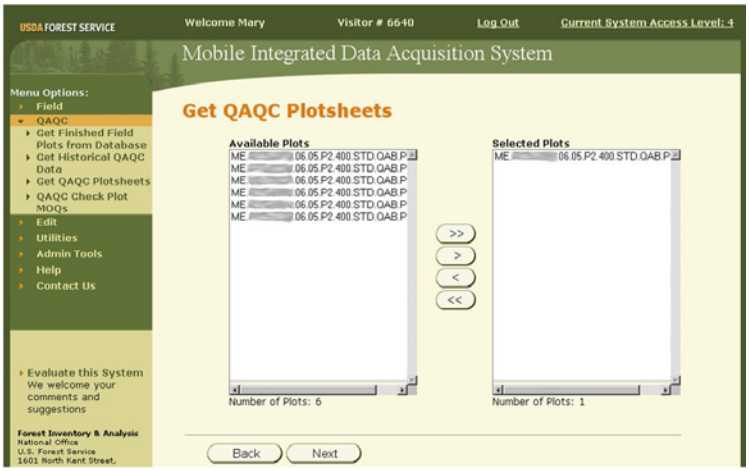
3. To further refine the selection of which QAQC files are desired, select values from the remaining drop-down boxes to meet the selection criteria. Note that the ***Unit*** and ***County*** drop-down boxes will allow for the selection of *All*.

4. After all ***Plot Selection*** criteria have been specified, click the ***Next*** button.



5. Once the desired selection criteria have been submitted, a list of ***Available Plots*** based on that criteria will be presented. Note that the QAQC plotsheet files will have a .PDF extension.

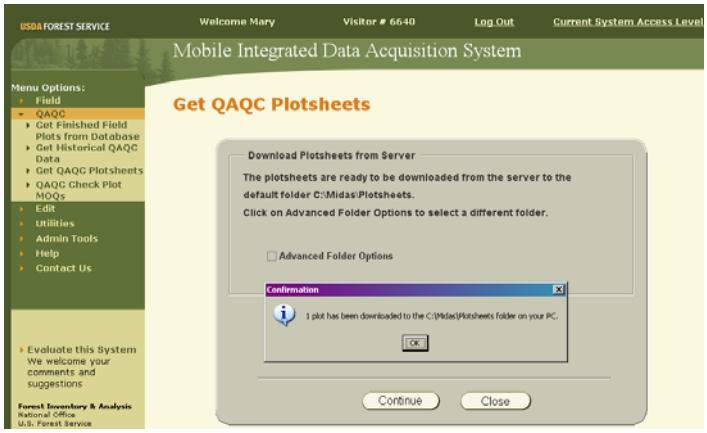
6. Click to select the QAQC plotsheet(s) that are desired for printing. To select all of the listed plotsheets, click the **>>** button. Otherwise, click to highlight the desired plotsheets, using the CTRL key to select multiple plots … then click the **>** button to move the selected plotsheets to the ***Selected Plots*** list. To remove any undesired plotsheets from the ***Selected Plots*** list, click to highlight the plotheet file then click the **<** button. The **<<** button will remove all plotsheet files from the ***Selected Plots*** list.



7. Click the ***Next*** button to submit the list of selected QAQC plotsheets and proceed to the *Download Plotsheets from Server* screen.

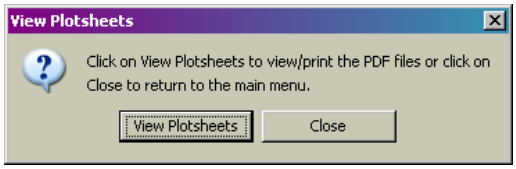
8. Upon entering the *Download Plotsheets from Server* screen, the QAQC plotsheets are ready to be downloaded directly to a default directory on the PC. The screen does offer the option to select an alternate location on the PC for the downloaded plotsheet files by clicking to select the ***Advanced Folder Options*** option and selecting the desired location.

9. Click the ***Continue*** button. The QAQC plotsheets will be downloaded from the server directly to either the default directory on the PC or to another directory on the PC as specified as an advanced folder option.

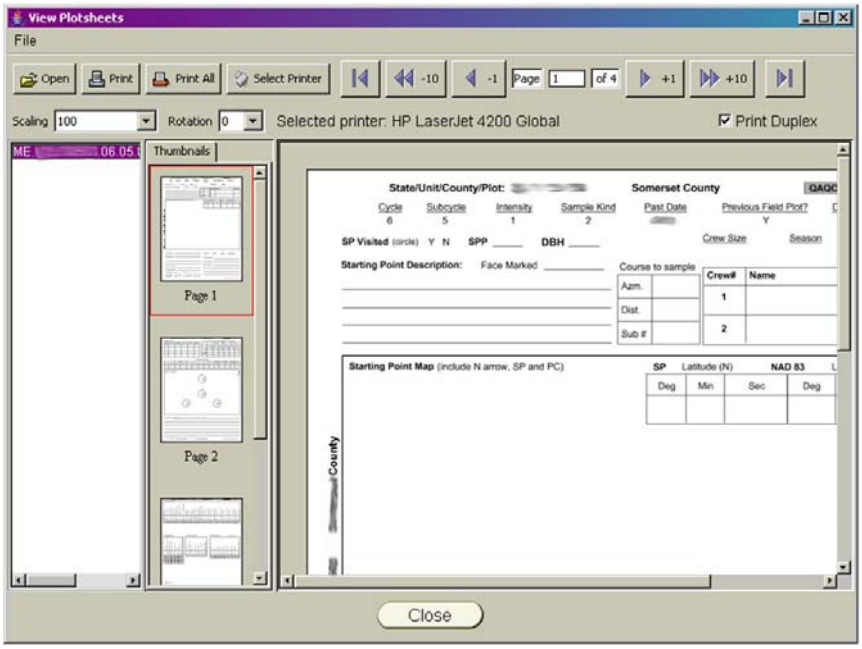


10. A message will appear confirming that the QAQC plotsheet(s) have been downloaded … click ***OK*.**

11. A *View Plotsheets* message will appear … click the ***View Plotsheets*** button to open a screen for viewing and printing the QAQC plotsheet.



12. On the *View Plotsheets* screen, click to select the desired plotsheet file(s) … then click the ***Print*** button to send the plotsheet to the default printer for printing.



13. Click the ***Close*** button after the QAQC plotsheet has successfully printed.

QAQC Data Entry

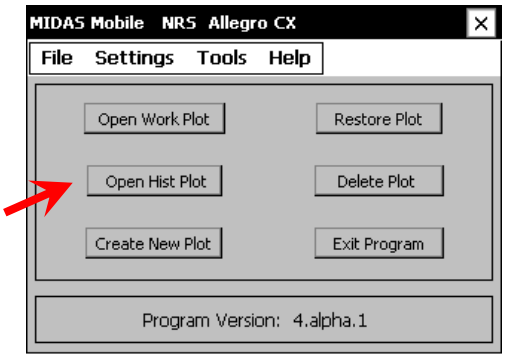
For the most part, entering data for a QAQC plot follows the same process as entering data for a regular plot. Within the MIDAS Mobile program on the PDR the data entry screens will look the same and navigation within the program will be essentially the same … a detailed description can be found in the section of this document entitled "Data Entry". There are a few subtle differences, however, as described below:

Open a Plot File

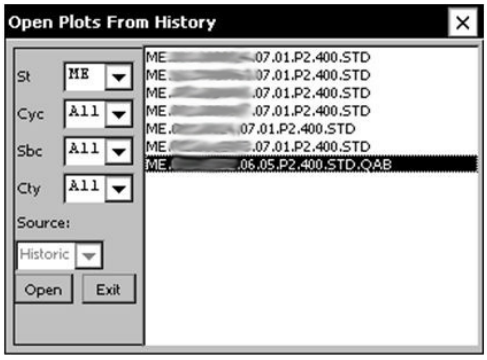
To enter data for a QAQC plot, the history file for the desired QAQC plot must have been downloaded to the PDR. See the previous section above entitled "Retrieve QAQC Historical Data from the Database" and "Send QAQC Plots to the PDR" for detailed instruction on downloading QAQC history files.

To open a QAQC plot file for data entry:

1. Click the ***Open Hist Plot*** button on the main plot task screen within MIDAS Mobile.



2. In the ***Open Plot From History*** screen, use the drop-down boxes on the left side of the screen to narrow down the list of plots.



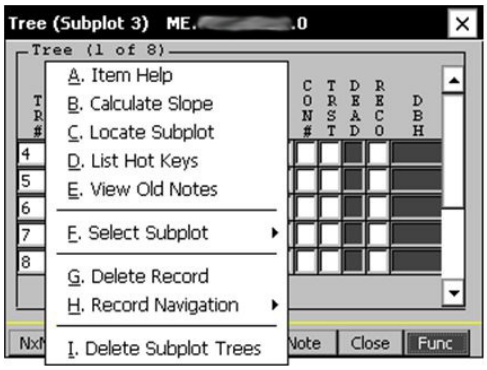
3. Click to highlight the desired QAQC plot then click the ***Open*** button to load the QAQC plot for data entry.

   Note that both QAQC and regular field plots may be listed … QAQC plots may be differentiated by looking for the .QA* extension on the end of the plot name.

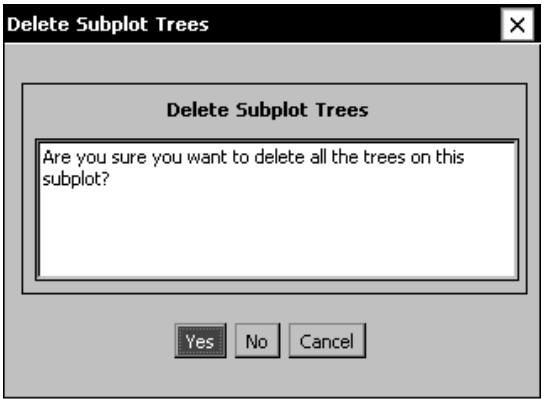
Deleting Subplot Trees that were not Quality Checked

When doing a QAQC plot, not all existing trees will be measured for quality control. For this reason, the MIDAS Mobile program has a function available only for QAQC plots that allows for the deletion of tree records that were not measured for quality control. This function is available via the [***F5***] function key.

1. While the QAQC plot is open within the MIDAS Mobile application, navigate to the Tree screen of the subplot that is not to be measured.
2. Press the [***F5***] key to access a menu for available data tools and functions. The menu of available data tools and functions is also available via the ***Func*** button in the menu bar at the bottom of the data collection screen.
3. From the pop-up menu, select ***Delete Subplot Trees***.



4. A message window will ask for confirmation of the delete trees action … click the ***Yes*** button.

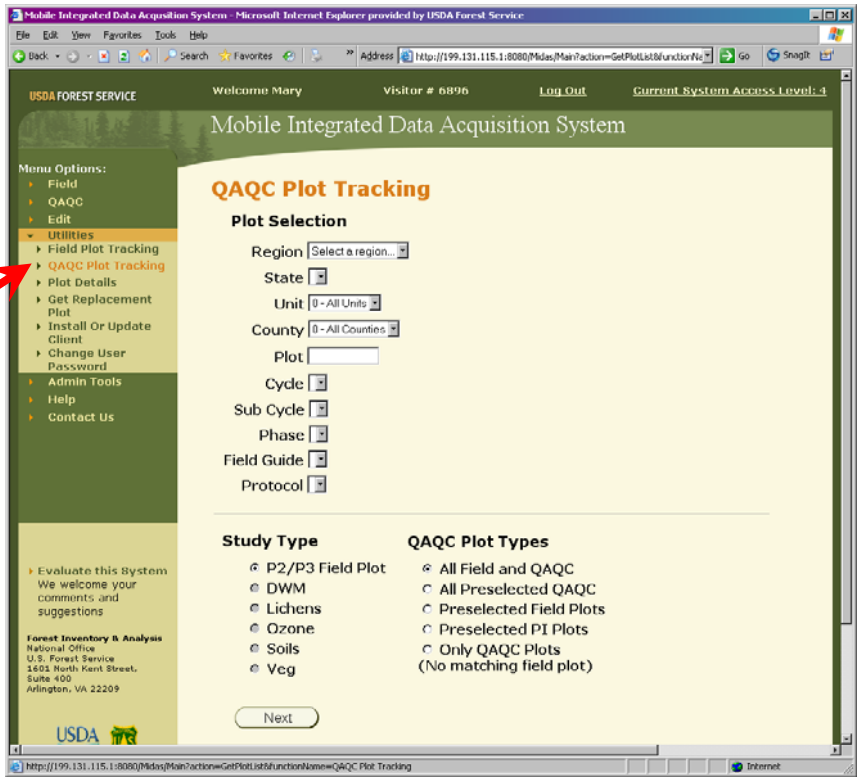


5. All tree records for that particular subplot will be deleted and the screen will refresh to display a Tree screen with no tree records. Note that there is no way to recover the data once it is deleted.

QAQC Plot Tracking

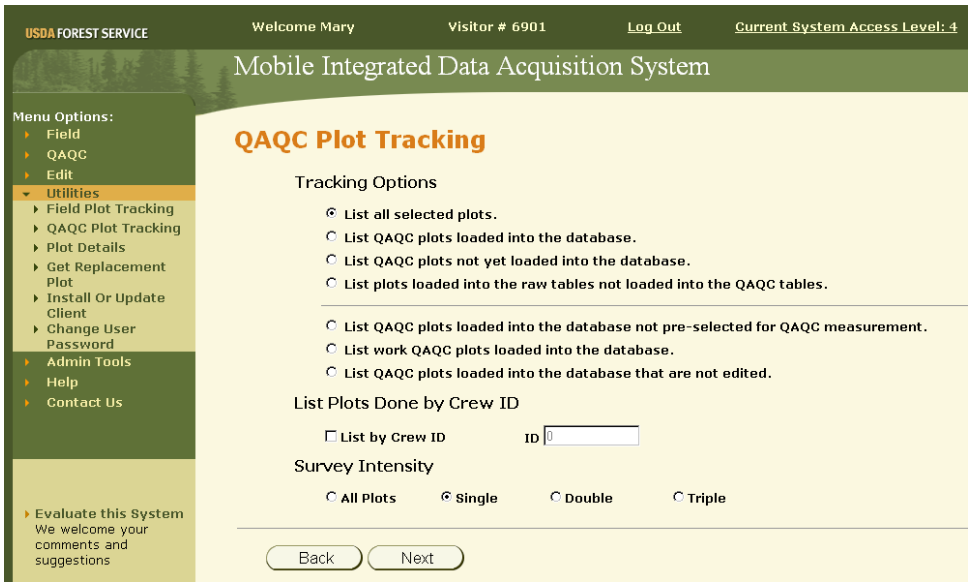
The MIDAS web site has a plot tracking feature that provides limited access to the list of QAQC plots selected for measurement. Using this feature, QAQC crews will be able to retrieve real-time information from the database concerning the status of each plot, which plots have been completed and loaded into the database. The plot tracking feature has a number of filters to customize what information the user is seeking and how it is presented.

1. Once logged in on the MIDAS website, click on ***Utilities > QAQC Plot Tracking*** under *Menu Options* on the left side of the web page.

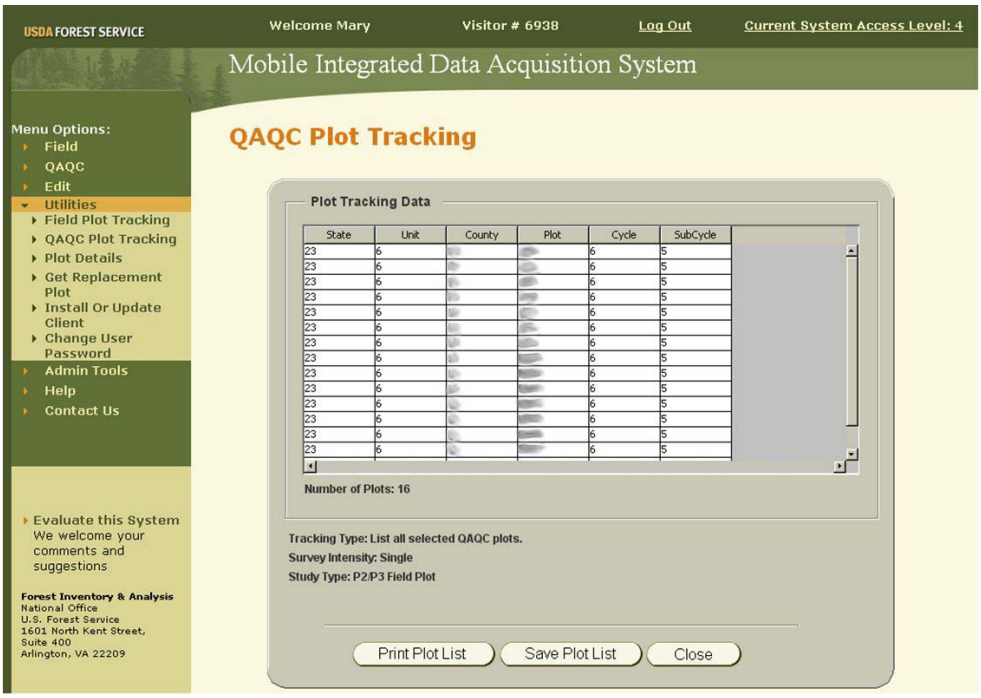


2. On the *QAQC Plot Tracking* screen, specify the ***Study Type***, the ***QAQC Plot Type*** and ***Plot Selection*** details (such as Region, State, etc) as needed to narrow down the list of plots … then click the ***Next*** button.

3. Select the desired tracking options … then click the ***Next*** button.



4. A spreadsheet-like screen will be presented listing all plots that meet the specified selection criteria as summarized below the list of plots.



5. Use the ***Print Plot List*** and/or ***Save Plot List*** buttons to print a hard copy of the resulting plot list or to save the list to an *html* formatted file … click the ***Close*** button when finished.

Load Field Data into Work Database Tables

Admin users may edit field plot data within the office. Once all edits to a plot have been completed, the plot will be loaded into the work database tables. Only admin users may perform this task.

1. Once logged in on the MIDAS website, click on ***Edit > Plot Editor – Office*** under *Menu Options* on the left side of the web page.

2. The remainder of the process is nearly identical to the process used by the field crews to load their plot data into the raw database tables. Please refer to the step-by-step instructions found under the heading of *Load Completed Plots into Raw Database Tables* found in the *Processing Completed Plots* section of this document.

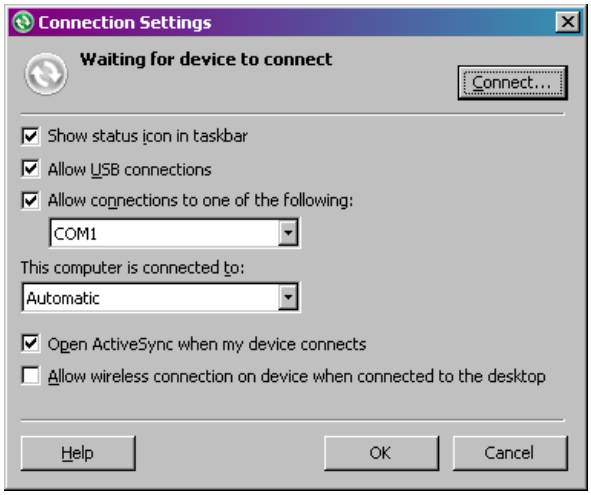
Appendix A: Establishing an ActiveSync Connection

At the writing of this document, the Allegro is the most commonly used PDR across all FIA stations. As such, this section of the document will focus on establishing an ActiveSync connection between an Allegro CX and a PC.

The instructions require steps to be performed on both the Laptop/PC and on the Allegro. For clarity, each instruction has been preceded with either [PC] or [Allegro] to indicate on which machine the action is to be performed.

Please note that Microsoft ActiveSync is sometimes unpredictable in its behavior … if you have any problems during this process, please contact your station's crew support person for assistance in resolving your issues.

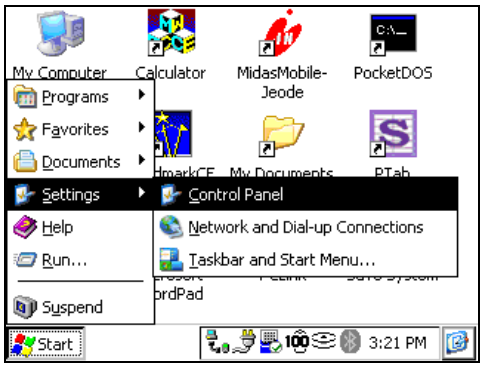
1. [PC] On the PC, select ***All Programs*** > ***Microsoft ActiveSync*** from the ***START*** menu.
2. [PC] In the *Microsoft ActiveSync* window, select ***Connection Settings*** from the ***File*** menu.
3. [PC] A *Connection Settings* window will open.



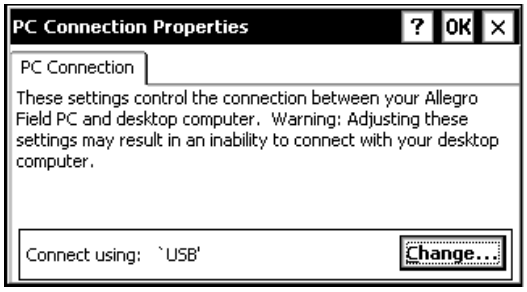
4. [PC] Make sure that the options are set as indicated above. Most importantly, the following options should be checked:
   - Allow USB connections
   - Allow connections to one of the following:
   - Open ActiveSync when my device connects
5. [PC] Select a COM port for the ***Allow connections to one of the following:*** option. If just using a standard serial cable, this will most likely be COM1. If using the USB to serial adapter, this may be COM3 or COM4 … please refer to the instructions provided with the adapter for specific instruction.

6. [PC] Click the ***OK*** button.

7. [Allegro] On the Allegro, select ***Settings*** > ***Control Panel*** from the ***START*** menu.



8. [Allegro] Double Click on the ***PC Connection*** icon … A *PC Connection Properties* window should appear.

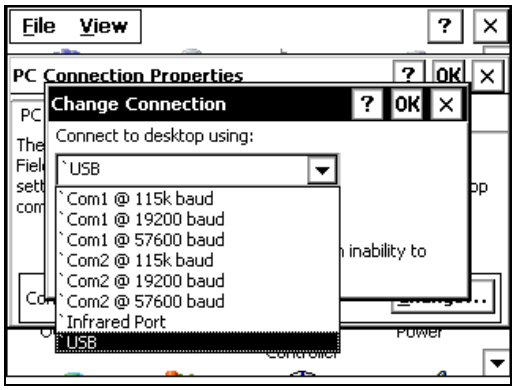


9. [Allegro] In the *PC Connection Properties* window, the ***Connect using*** box should indicate the type of connection that will be used to connect the Allegro CX to the PC. The three primary methods used with the Allegro CX are as follows:

   - USB ……..…….. Connect using: ***'USB'***
   - Serial ……..…….. Connect using: ***'Com1 @ 115k baud'***
   - USB to Serial Adapter …... Connect using: ***'Com1 @ 19200 baud'***

10. [Allegro] If the ***Connect using*** box does not indicate the desired setting:

    - [Allegro] Click the ***Change…*** button.
    - [Allegro] From the *Change Connection* pop-up window, select the desired setting from the drop-down box.



- Click the ***OK*** button in the upper right corner of the *Change Connection* pop-up window to save your selection … if you do not click ***OK***, your setting will not be saved.

- **[Allegro]** Click the ***OK*** button in the upper right corner of the *PC Connection Properties* window to save your selection … if you do not click ***OK***, your setting will not be saved.

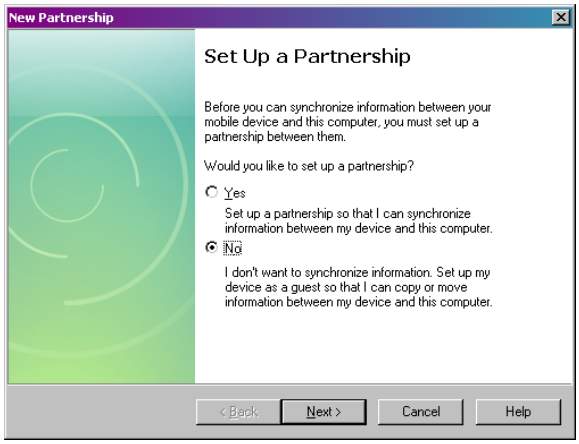
11. **[Allegro]** Turn off the Allegro and connect the Allegro to the PC with the appropriate cable. If using USB via the Allegro Docking Station, make sure that the docking station is plugged into a power source and is connected to your PC via the USB cable.

12. **[Allegro]** Turn on the Allegro. If using the USB/Docking Station, simply place the Allegro into the Docking Station and the Allegro will turn itself on.

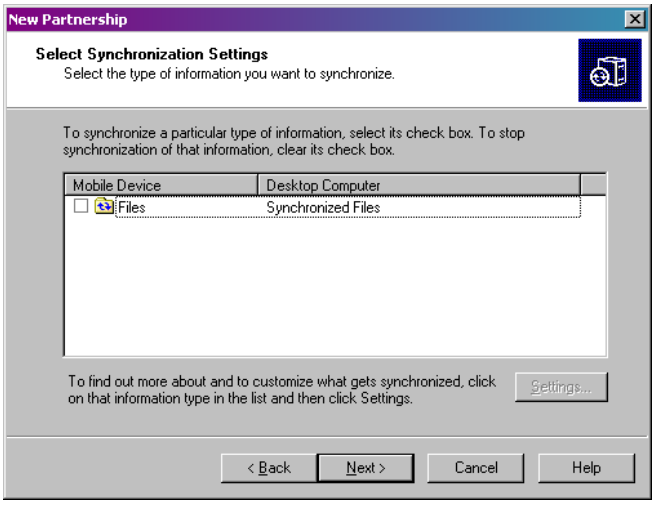
13. **[PC]** ActiveSync should automatically detect the Allegro and start up a dialog. *Be patient, as this may take a minute.*

    [Allegro] It is possible that ActiveSync may not automatically respond … if this happens, double click the ***PCLink*** icon on your Allegro desktop to kickstart the connection.

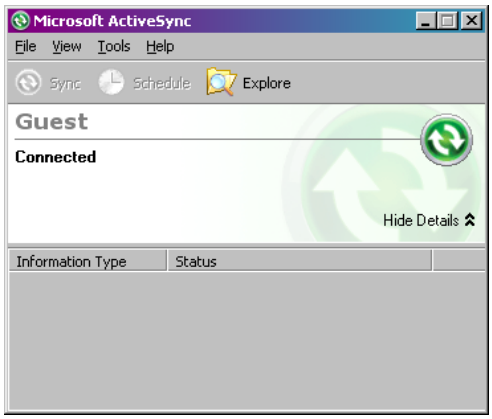
14. **[PC]** Once a connection is established, a *New Partnership* window will appear … select ***No***, then click the ***Next*** button.



Special Note: When no partnership is established, the *New Partnership* window will appear each time the Allegro is connected. If this is annoying to the user, a partnership can be created but it is important that *Files* not be selected on the *Select Synchronization Settings* screen.



15. **[PC]** The *Microsoft ActiveSync* window should now indicate that a Guest device is connected.



16. **[Allegro]** To ensure that the Allegro connection settings are retained in the event of a machine crash or loss of battery power, save the settings to non-volatile memory by selecting ***Programs*** > ***Utilities*** > ***Save System*** from the START menu.

Appendix B: Navigation Keys for the MIDAS PDR Application

BkSp	Delete entered text
Ctrl + A	Data entry options screen
Ctrl + B	Jump to middle of data fields on current screen
Tab Left	Previous record
Tab Right	Next record
Ctrl + F	First record
Ctrl + L	Last record
Ctrl + G	Go to record
Ctrl + C	Next tree number
Ctrl + D	Toggle between single record and grid data entry
Ctrl + H	Home
Ctrl + I	Select subplot
Ctrl + O	Previous subplot
Ctrl + U	Next subplot
Ctrl + S	Save plot
Ctrl + K	Read in GPS file exchange folder coordinates
Ctrl + M	Get slope correction
Ctrl + P	Diameter root collar
Ctrl + N	Note
Ctrl + W	Edit current record
Ctrl + X	Edit current menu
Ctrl + Q	Sort trees by ascending azimuths, trees then saplings
F1	Help
F2	Next menu
F3	Previous menu
F4	Main menu
F5	Functions