



Instruction Manual for ArcPad/RTI

Version 2.0

Introduction

Before we can begin installation, please ensure that ArcPad is already installed on your mobile device and authorized. If not, please contact ESRI or your ESRI vendor for assistance.

Also, please ensure all communication peripherals are working before attempting to install RTI for ArcPad. This includes all cables, cradles, serial ports, USB ports and ActiveSync or Mobile Device Manager. The mobile device must be powered on and connected to the PC before attempting installation.

It is also understood that in order for RTI for ArcPad to work, a valid, licensed copy of TCruise WinCE must be installed and operational on your mobile device.

Installing RTI for ArcPad

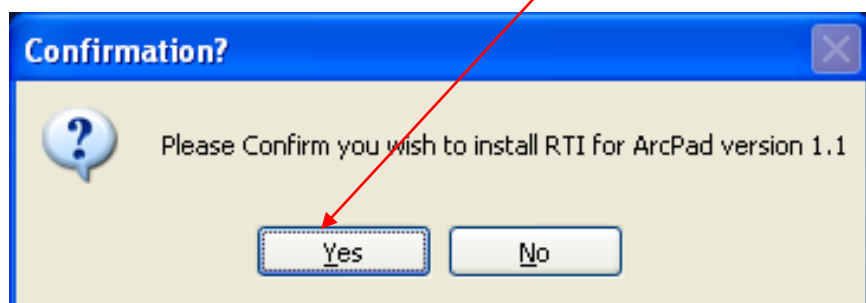


RTI_Install.exe
RTI_Install
Microsoft

After the Installer is provided or downloaded, double-click to execute the installer.



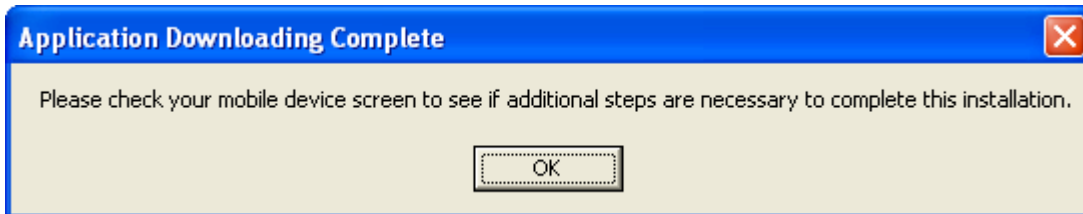
Press “Install” to proceed and Confirm



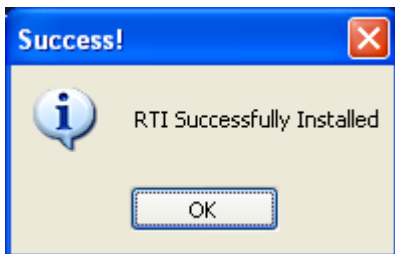
Installing RTI for ArcPad

RTI will then be installed on your mobile device. You will receive several confirmations, two on the PC and one on the mobile device.

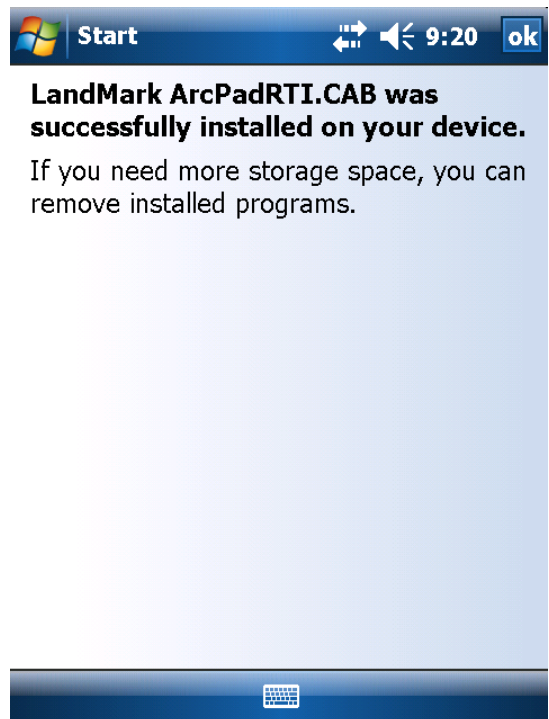
PC Confirmation 1



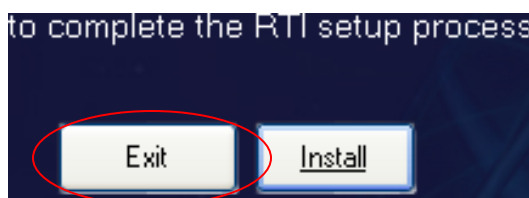
PC Confirmation 2



Mobile Device Confirmation

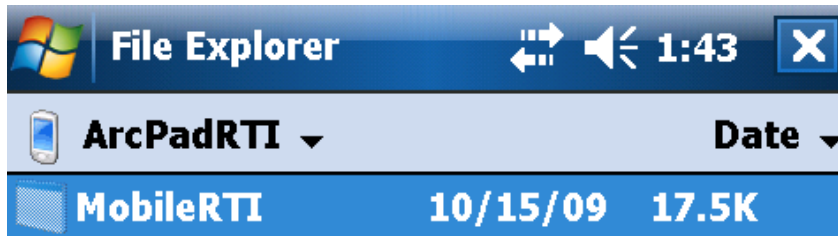


Press "OK" at each confirmation to complete the installation, then Exit from the RTI Installer dialog box.

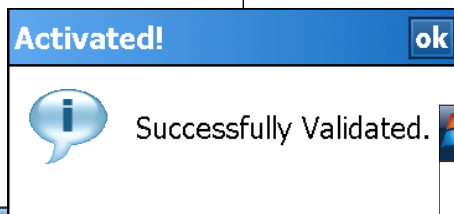
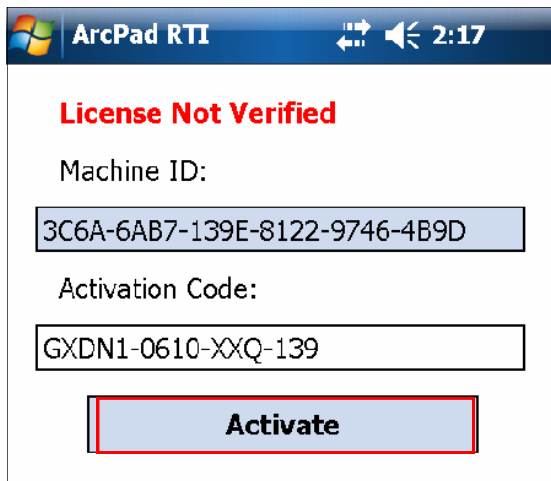
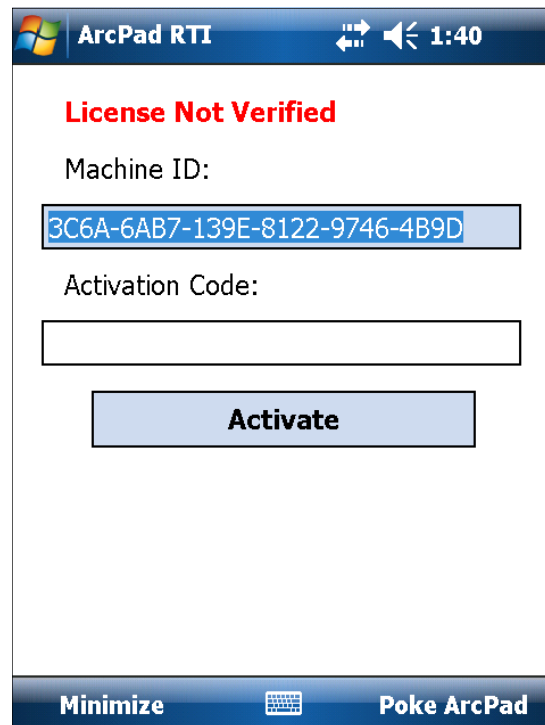


Authorizing ArcPad RTI

Before RTI can be used with ArcPad, it must be registered. Navigate on your handheld to the My Device\Program Files\ArcPadRTI Folder. You should see a file in this folder called "MobileRTI".



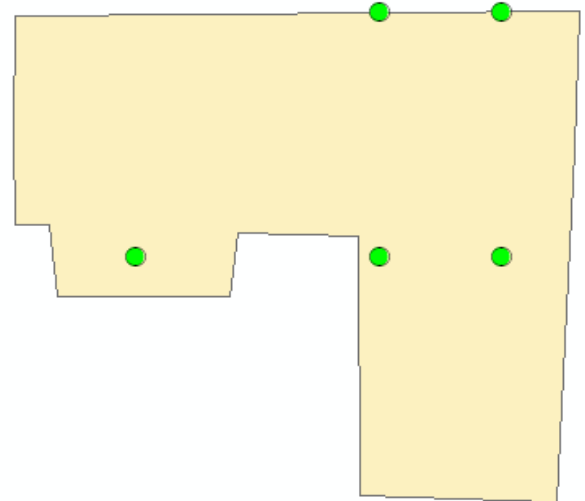
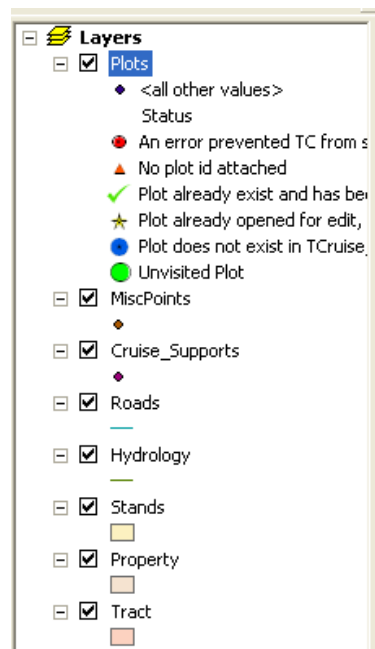
Tap this file to activate the registration process. If you have legally obtained a copy of ArcPad RTI, you will have received an Activation Code. Enter this code in the space provided and press the Activate button.



Preparing For a Cruise

Before we can begin, we must generate cruise plots for the field project. This is just an example for reference and is not intended to be a training manual for generating plots, ArcPad Data Manager, or ArcGIS.

Using SilvAssist Tools for ArcGIS, we can easily generate cruise plots in individual polygons or across ownerships. In this example we placed a specified number of plots (5) on the sample polygon.





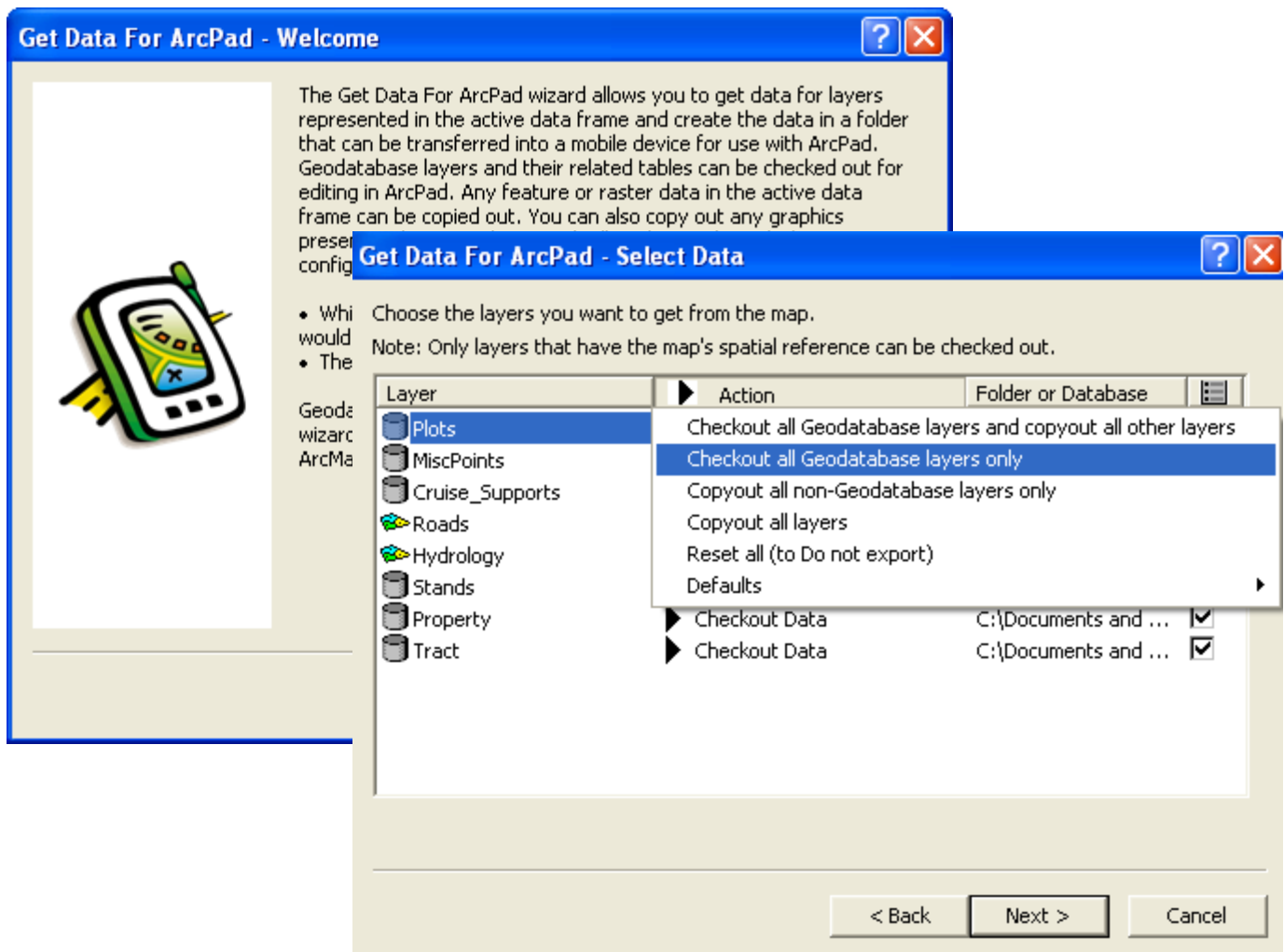
Also, notice the project has been established with symbology defined for cruise plots based on status of plot. This is to help the field user easily identify the status of the plots while they are collecting data and correct any issues that may arise

**Note, RTI requires a plot table schema created by the SilvAssist plot Allocator. If you do not have this tool, contact your sales rep to get an empty geodatabase with a plot feature class in it.*

We can now move this project data to the handheld for the sample cruise project.

Preparing For a Cruise

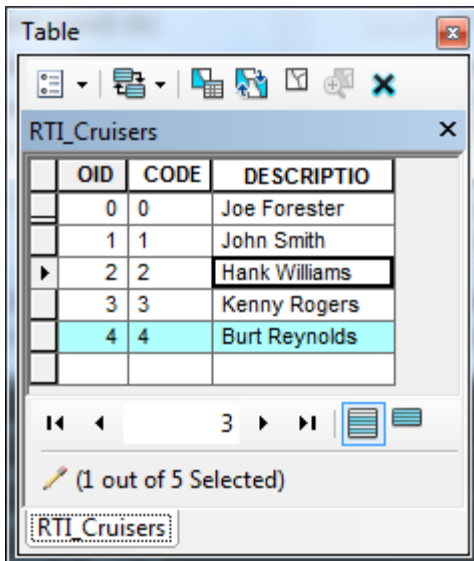
To prepare our data for the field, we will use the ArcPad Data Manager in ArcGIS to prepare the data we need. By selecting the “Get Data For ArcPad” Tool,  we will be prompted to choose the data we would like to transfer to ArcPad. The first screen is a welcome screen that can be disabled by pressing the “Do not show this welcome page again” option. Press “Next>” and we will now start selecting the layers that we wish to export and whether or not they are editable. By left clicking on the “Action” button , we will choose to “Checkout all Geodatabase layers only”.



Preparing For a Cruise

An important feature of RTI for Arpad is that a cruiser name must be selected in the field before plots can be visited. This ensures that every plot has a cruiser name and that there is consistent naming across different devices on any cruise project. To set your companies cruiser names up, you will need to edit the cruiser database file on the device. Note, if you are not comfortable with using ArcMap and editing DBF files, you may need to contact your sales representative. To do this you must first copy the RTI_Cruisers.dbf file from your field device. With your device synched, explore your device and find this file in the following location : \Program Files\ArcPad\Applets

With the DBF file in ArcMap, you should see something like the table below:



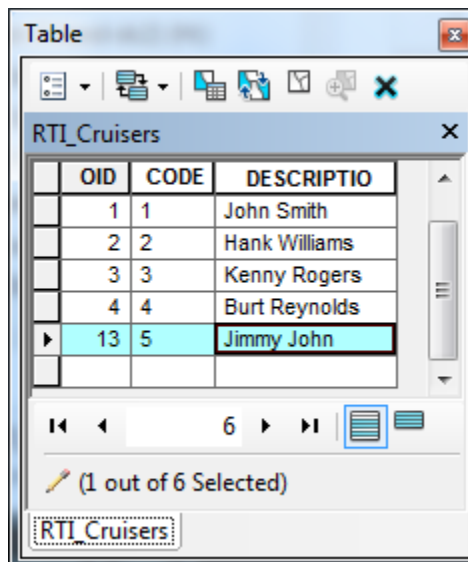
Table

RTI_Cruisers

OID	CODE	DESCRIPTIO
0	0	Joe Forester
1	1	John Smith
2	2	Hank Williams
3	3	Kenny Rogers
4	4	Burt Reynolds

(1 out of 5 Selected)

By entering edit mode from the editor menu, you can change the description field to the names of creatures in your company, and add or delete cruisers.



Table

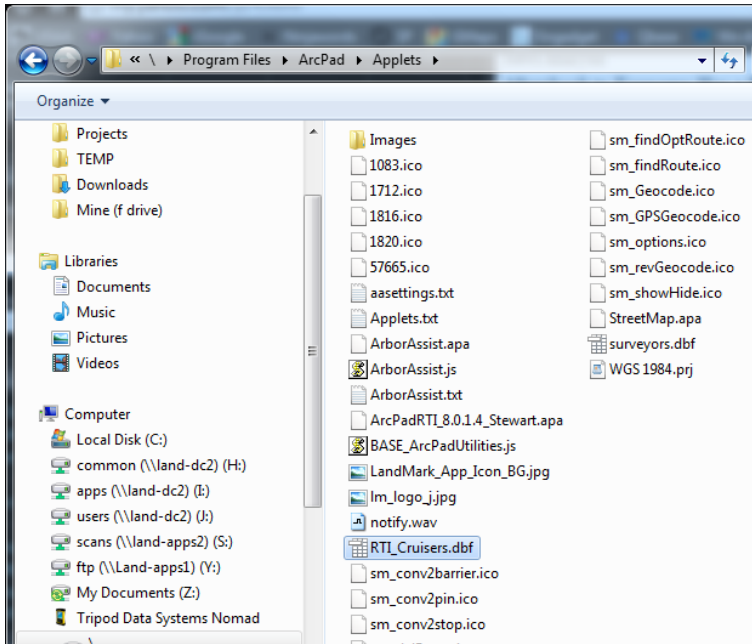
RTI_Cruisers

OID	CODE	DESCRIPTIO
1	1	John Smith
2	2	Hank Williams
3	3	Kenny Rogers
4	4	Burt Reynolds
13	5	Jimmy John

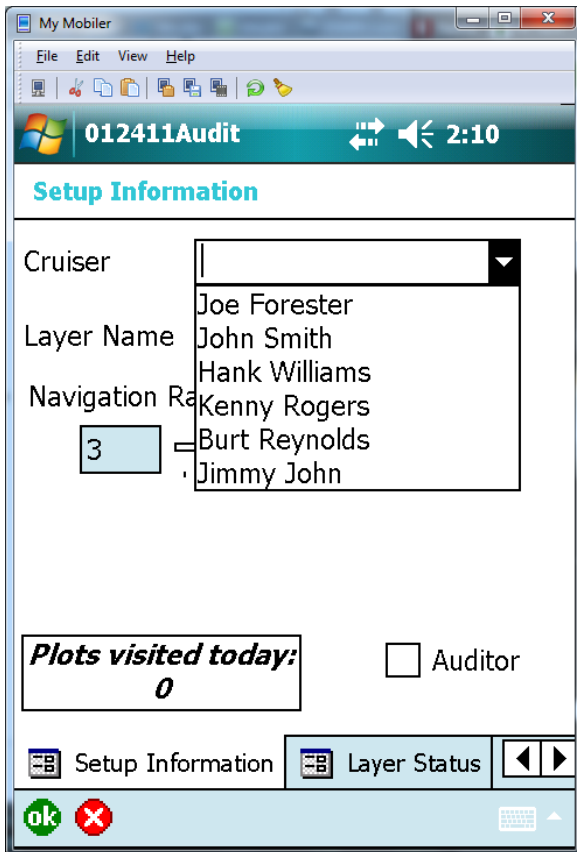
(1 out of 6 Selected)

In this image, a cruiser has been added, Jimmy John has been added. Note, you should add you a unique code number for new cruisers. The OID field will be automatically populated.

Preparing For a Cruise



With all your cruiser edits done in the DBF file, the file should be copied back to the applets folder on the field device as shown to the left.



The next time RTI ArcPad is opened, You should see all the values entered in the cruiser DBF file.

If you would like to see your cursor names in your geo-database when you load your plot data, you should create an attribute domain in your geo-database using the cruiser DBF file.

Information on how to do this can be found here:

[http://webhelp.esri.com/arcgisDEsktop/9.3/index.cfm?TopicName=table_to_domain_\(data_management\)](http://webhelp.esri.com/arcgisDEsktop/9.3/index.cfm?TopicName=table_to_domain_(data_management))

Preparing For a Cruise

We can now choose the extents of the data we want to export, specify the location to store the field project and name the field project.

Get Data For ArcPad - Select Output Options

What data do you want?

Spatial extent: The current display extent

- Only get selected features
- Only get features specified in layer's definition query
- Only get fields specified as visible in layer's properties

Specify a name for the folder that will be created to store the data:

DataForArcPad2

Where do you want this folder to be stored?:

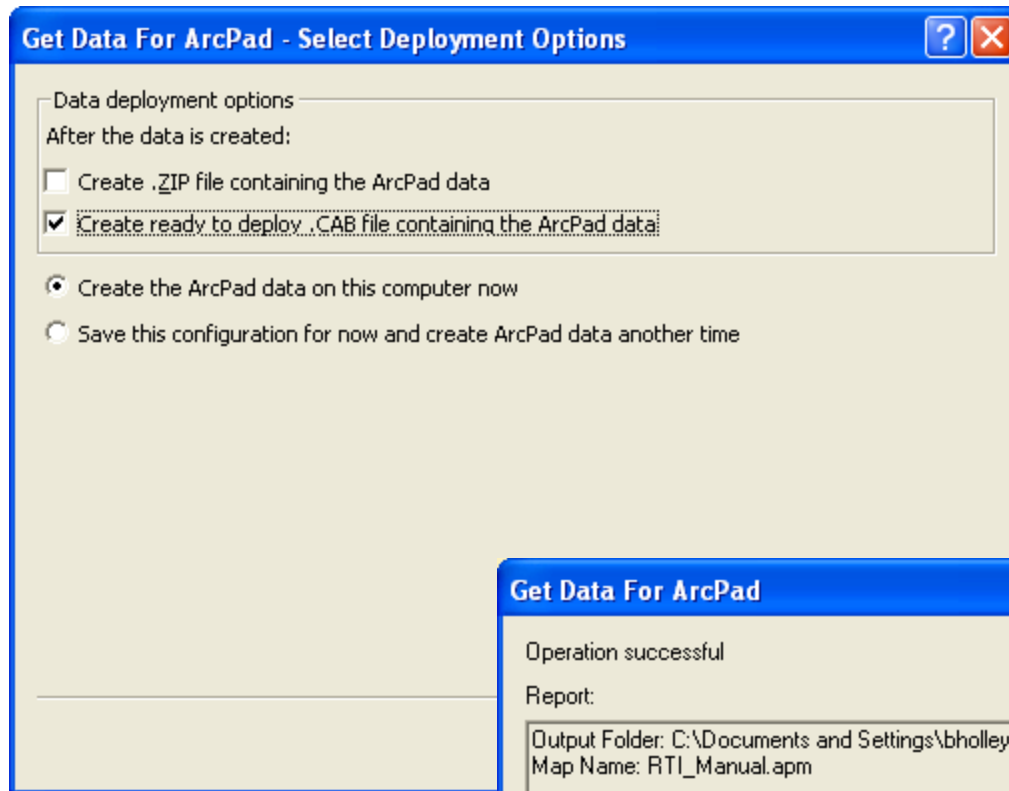
C:\Documents and Settings\bholley\My Documents\Programs\LandMark Programs\ArcPad_F

- Create an ArcPad map (.apm file) for the data Map name: RTI_Manual .apm
- Encrypt checked out data Password:
- Validate feature classes before checking out

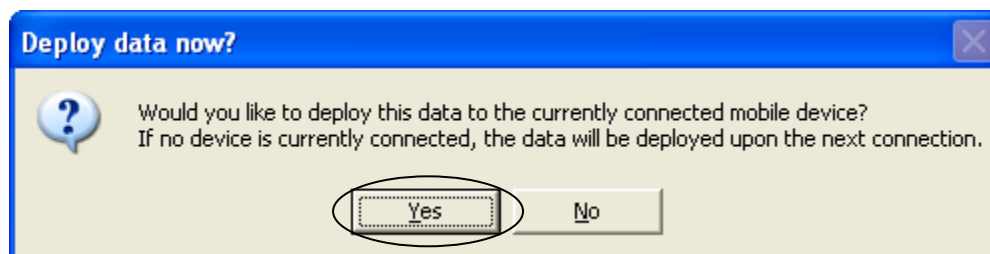
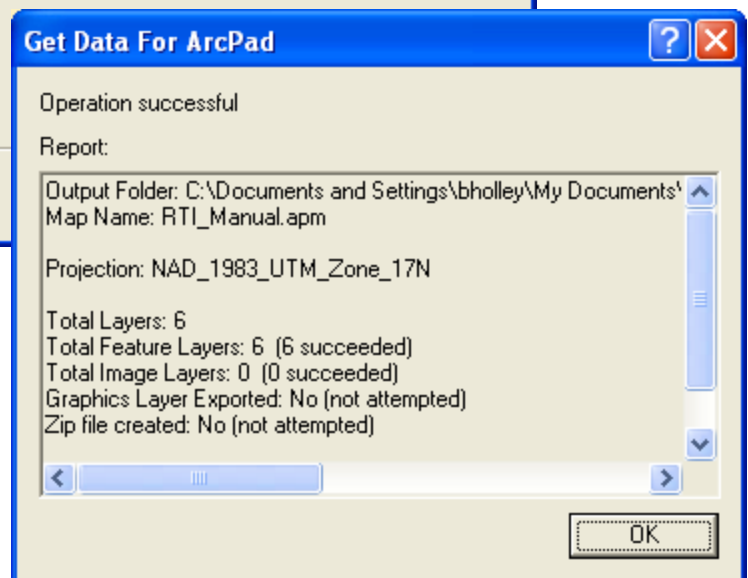
< Back Next > Cancel

Preparing For a Cruise

Next, choose how you want to deploy the data. In this example, we will choose to create a .CAB file for deployment and to create the data now.

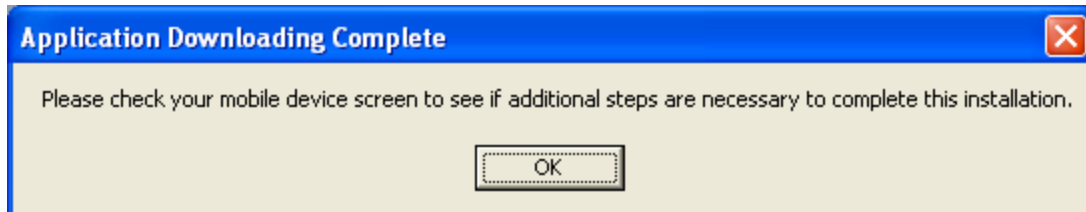


If the project was created successfully, you will receive a confirmation, with project details. Now choose when to deploy the project.

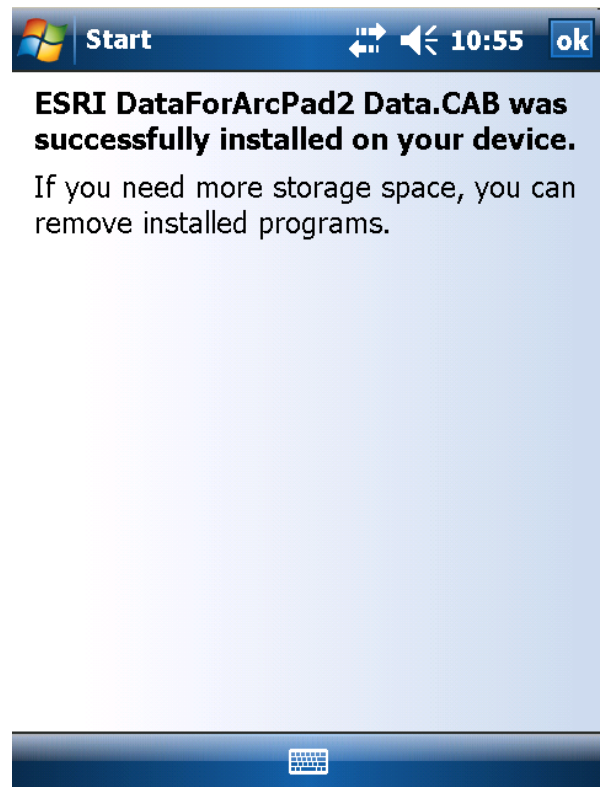


Deploying For Field Use

When process is complete, a notification similar to the one below will display



Once the project has copied to the handheld, the following screen will appear on the handheld.



Field Procedures

We will first begin by starting TCruise on the handheld and loading our cruising template.

1

2

3

4

Start

Today 9:33 AM

Calculator

File Explorer On

LandMark Info

SOLO_Forest

SoloFieldCE Quickstart IPAQ

TC Pro Pocket

TCruisePro Help

ArcPad 8.0

Internet Explorer

Pictures & Videos

Solitaire

Programs

Settings

Calendar Contacts

TCruisePK 9:34 ok

Choose action:

- No initial action
- Create a new cruise
- Open an existing cruise
- Import a code-param file
- Exit this program

OK Cancel

Show this dialog on startup

TCruisePK 9:36

Open

Folder: All Folders Cancel

Type: Codes(*.tcc)

Name ▲

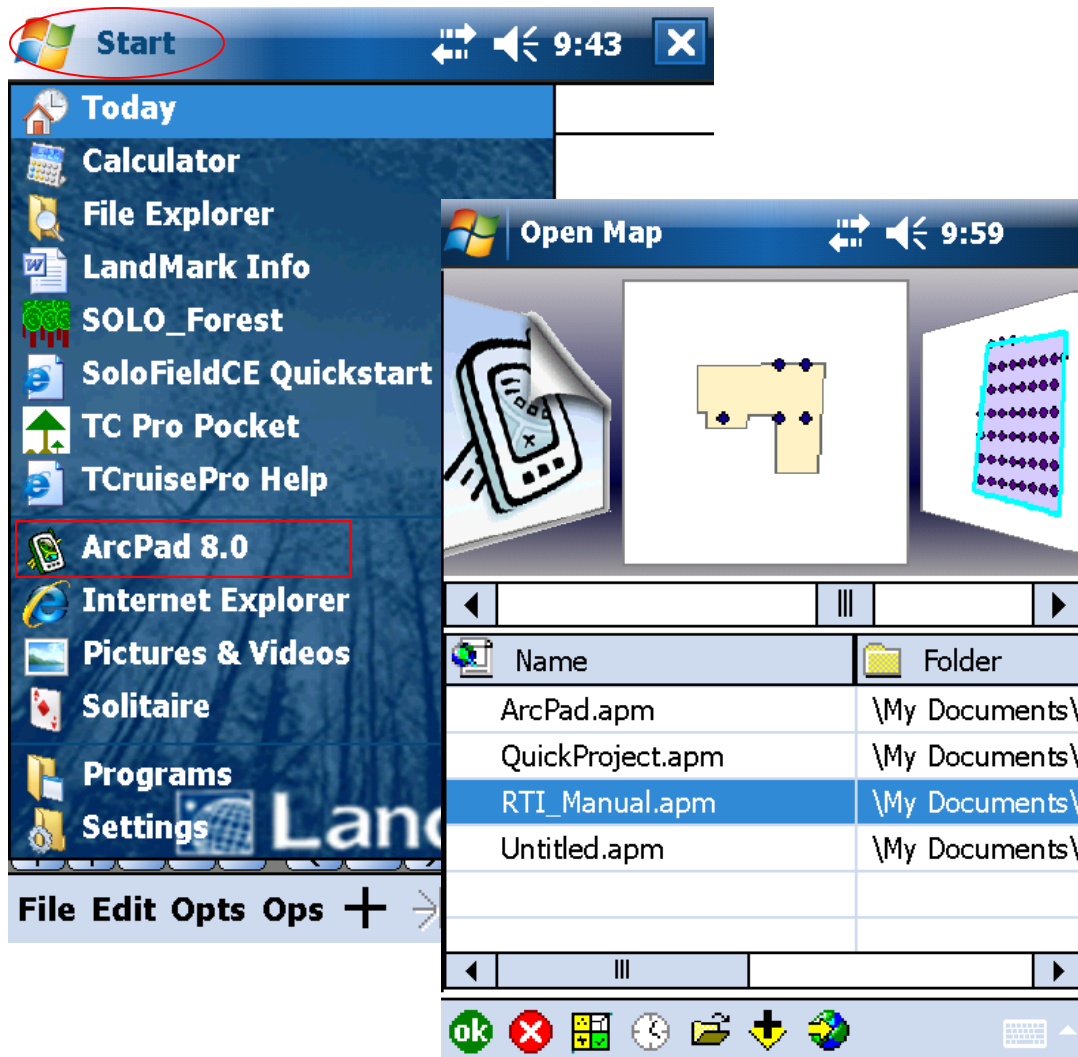
PineBluff

TCruiseProPK ok

Codes are loaded

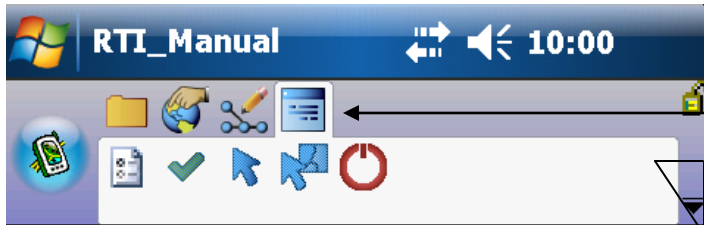
Field Procedures

Next, we will open the ArcPad project created in ArcGIS, RTI_Manual.apm



We will now choose the RTI_Manual.apm file and press OK

Field Procedures—Settings



Once installed and authorized, the RTI Menu will be active.



Settings button



Manually Select and Edit Plot



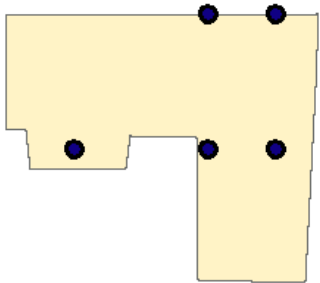
Navigate To Plot



Clear Navigation Target



Close and Save Map



30 m

Field Procedures—Settings



By selecting the RTI Settings button, the user has several entries to make before cruising.

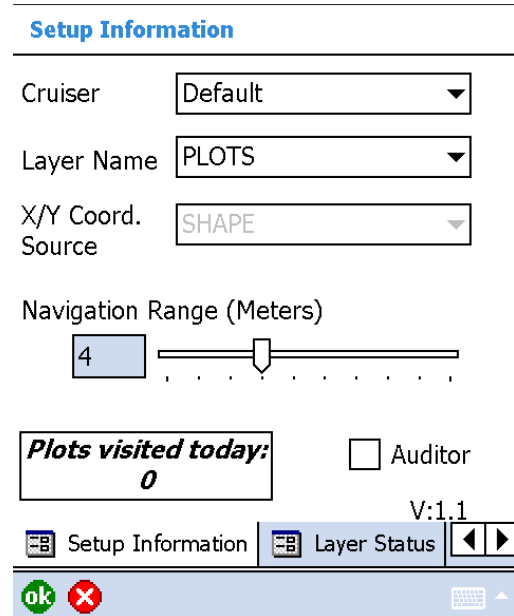
The Setup Information Screen allows the users to define the Cruiser, Layer Name, X/Y Coordinate Source, and Navigation Range (in Meters). The Cruiser information can be set up in the geodatabase with a pick list of default cruisers. (For more information on this feature, please contact your Authorized Land-Mark Systems Business Partner).

Choosing a Coordinate Source allows one to record actual GPS coordinates or the coordinates of a predetermined point/plot.


The Navigation range is easily adjustable to accommodate for poor GPS reception or accuracy. This can be locked as per requirements of the job.

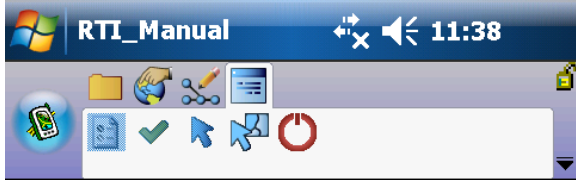
A “Plots Visited” indicator is also present in the Setup Information tab to gauge daily production.

The Auditor flag is available for easily comparing tree tally by plot.



Field Procedures

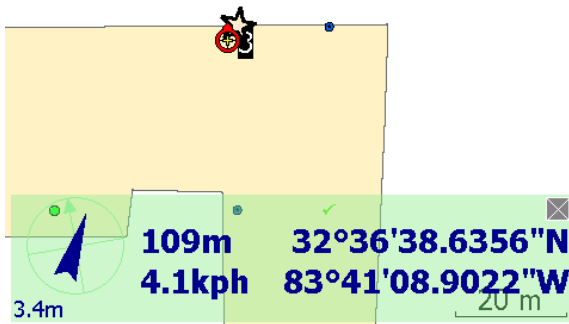
Now that the settings are complete, we can begin navigation to plots. First, select the plot to which you wish to navigate by using the Navigate to Plot button  and then selecting the plot. The plot selected for navigation will show a star (as shown below)



Once we are within range of the plot, we will be prompted to collect data with TCruise.



Edit Plot



Do you want to record tree data with T-Cruise?

YES

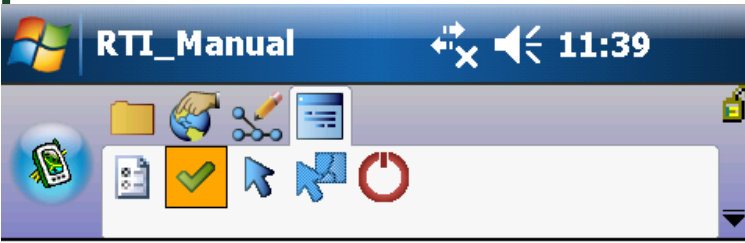
NO

GPS IN-RANGE

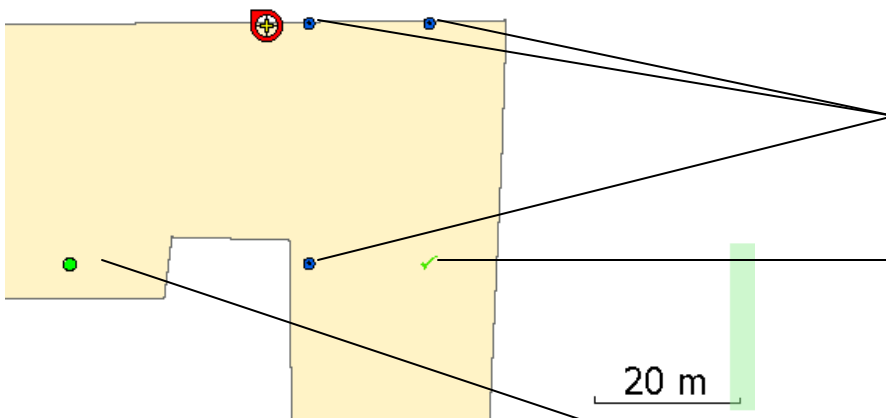
If we selects Yes, TCruise will be called and we can begin entering plot data. If No is selected, then the plot navigation and selection is canceled. We will then need to select the plot we wish to navigate to and collect plot data.



Field Procedures



The symbology for the plots is important. Quickly, we can determine the status of our plots.



New plot was created in TCruise and Visited by the user

New plot was created in TCruise and Visited by the user and then edited

Plot has not been visited by the user and no data has been collected for this plot

Field Procedures

The editing of plot data is easily done by using the Plot Edit Tool. Select the Plot Edit Tool (as shown below) and then select the plot that you wish to edit.

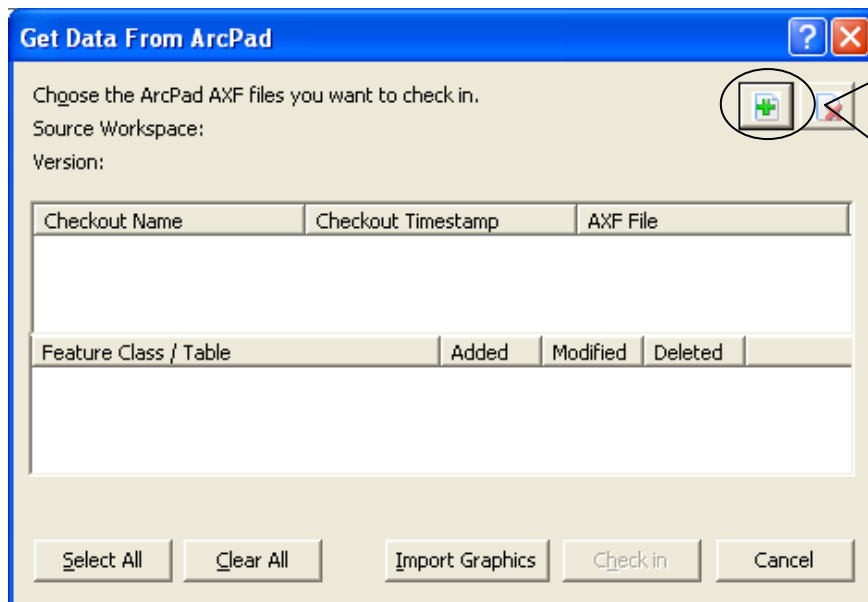
The image shows a screenshot of the RTI_Manual software interface. At the top, the title bar reads 'RTI_Manual' with a system clock showing 11:32. Below the title bar is a toolbar with various icons, including a hand icon for editing. A dialog box titled 'Edit?' is open, asking 'Edit this plot using T-Cruise?' with 'Yes' and 'No' buttons. Below the dialog, a map shows a yellow plot area with a star icon. A line labeled '30 m' indicates the plot size. To the right, a 'TCruisePK' window displays a data table for '001 - 4K of 4 e0 TCruise.tce'. The table has columns for 'Sp__', 'dbh', 'Prod', 'Ht Tot', 'Ht Saw', and 'HtLC'. The first row shows '1', '22.0', 'AA', '80', '48'. Below the table is a virtual keyboard and a menu bar with 'File Edit Opts Ops' and other icons.

Sp__	dbh	Prod	Ht Tot	Ht Saw	HtLC
1	22.0	AA	80	48	
1		AA			
1		AA			
1		AA			
1		AA			
1		AA			
1		AA			

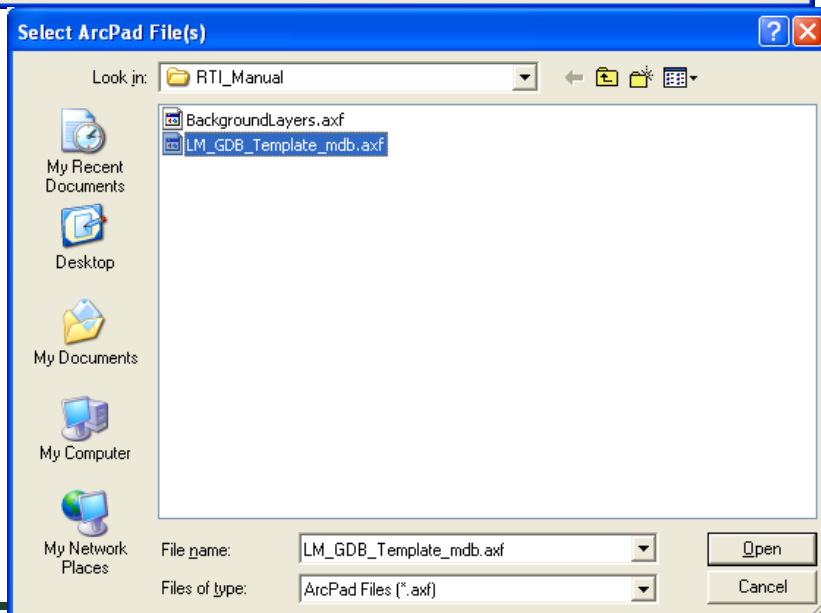
Importing the Changes

IMPORTANT: before you import field data, begin an edit session on the Geodatabase layer. This will allow you to “undo” any changes made to the GDB in the field that you do not wish to keep.

Now that the project is complete, we can bring the data from ArcPad into the Geodatabase using the ArcPad Data Manager “Get Data **From** ArcPad” tool . Before you can import the field data, please make sure that you have copied the project from your handheld to your PC.



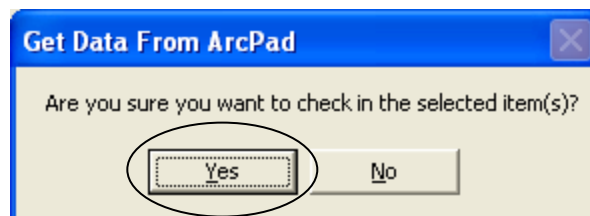
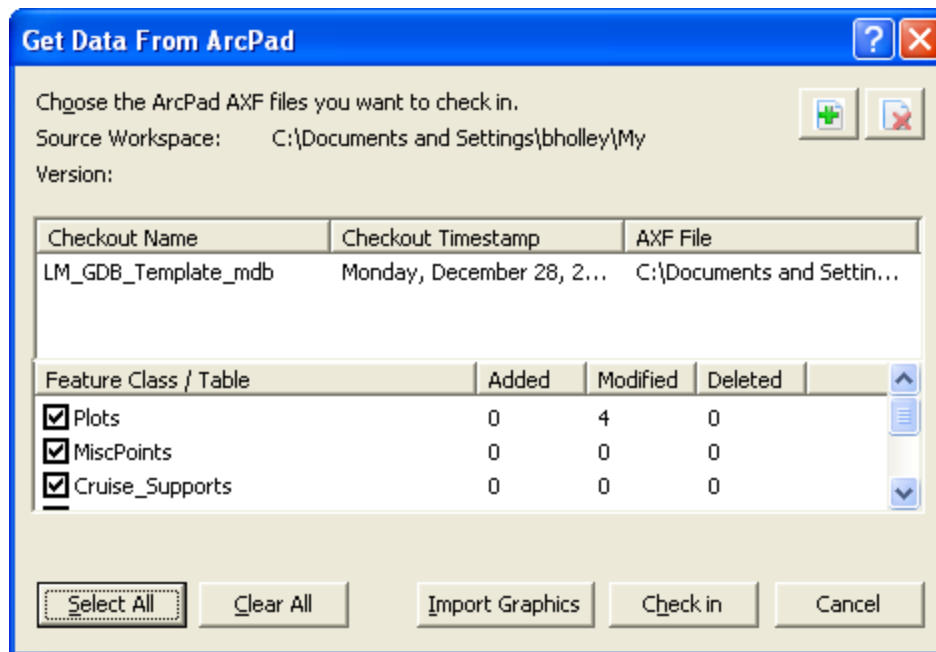
Press the Select .AXF project to Import Button.....



....And choose the file from your PC to import.

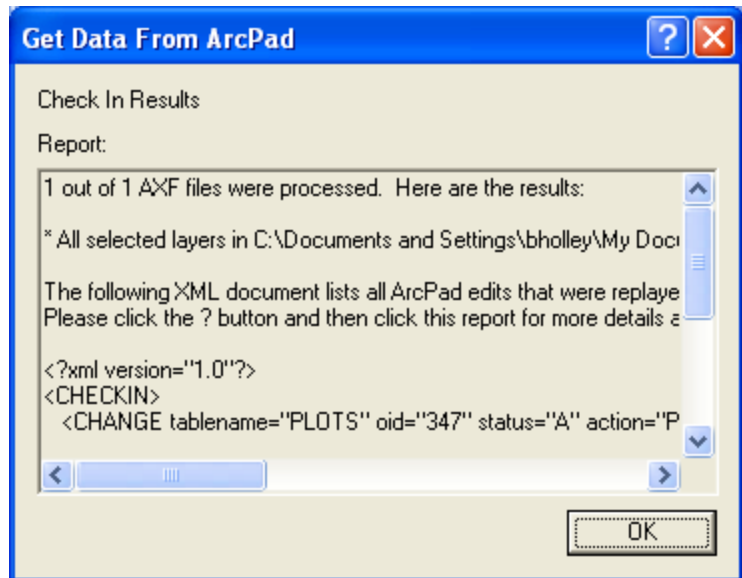
Checking In Field Data

You will now be prompted to select the layers to import, and in this example, we will choose “Select All”. Now select “Check in” to begin the process.

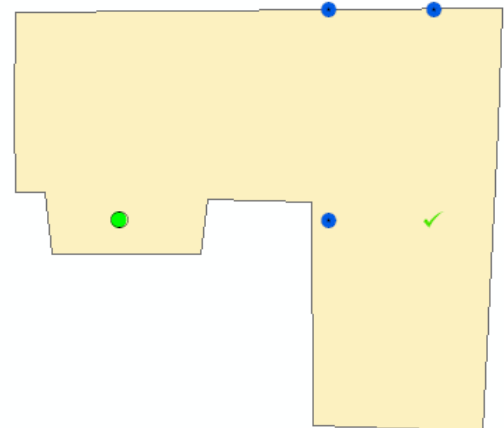
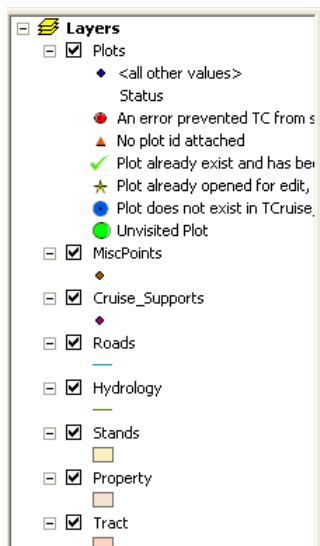


Checking In Field Data

The changes made to the Geodatabase in the field will be explained in the Check In Results dialog box.



The Results can now be viewed in ArcGIS. The data now shows 4 visited plots (1 that was edited) and 1 unvisited plot.





This manual is intended to show the process of preparing the data for field use, collecting field data using RTI, and Checking In the field data. It is not intended to be an instruction manual for TCruise, ArcGIS or ArcPad. It is inferred that the user has good understanding of these programs before attempting to collect data using RTI for ArcPad. Training is available for these products. Please contact your regional LandMark Systems Business Partner for information regarding training or for technical support.

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For additional Support options, tips or post a question: see our online community at

http://community.thinkf4.com/f4_tech

Or on the SilvAssist product page:
<http://www.thinkf4.com/solutions/silvassist-20>