

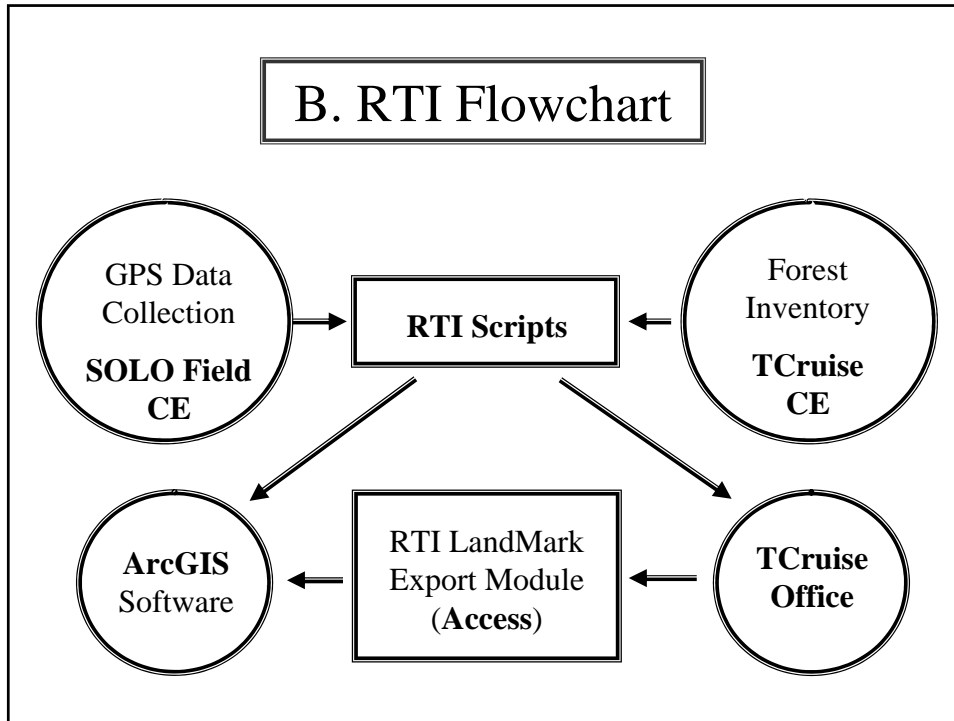
Real Time Inventory

A. RTI Overview

RTI is a patented, custom process that integrates GPS mapping and navigation capabilities with timber cruising. RTI allows the cruiser to download an existing stand perimeter shapefile or use GPS to collect a perimeter in the field. Next, the cruiser creates a cruise grid in whatever width, height, and orientation they desire, and then use their GPS system to guide them to the plot/point. Once they enter a given perimeter around the grid point (~20-25 ft.), RTI alerts them that they are near plot center and asks them if they would like to collect data in TCruise. If they say "Yes", RTI switches them to TCruise and brings over the Plot Id and Lat./Long. of plot center from SoloField to the Plot Id screen in TCruise. The Plot Id establishes a link between the spatial location of the plot and its ultimate volume of timber. Once the plot is recorded, the cruiser then returns to SoloField and selects the next plot to navigate to.

After the cruise is downloaded to the PC and RUN, the LandMark Export Module exports every bit of raw data out of TCruise and into an Access .mdb file. This file contains 6 tables that can then have queries run on them to produce custom tables that can then be linked back to the Stand polygons and Plot points in ArcGIS using the Join and Relate commands.

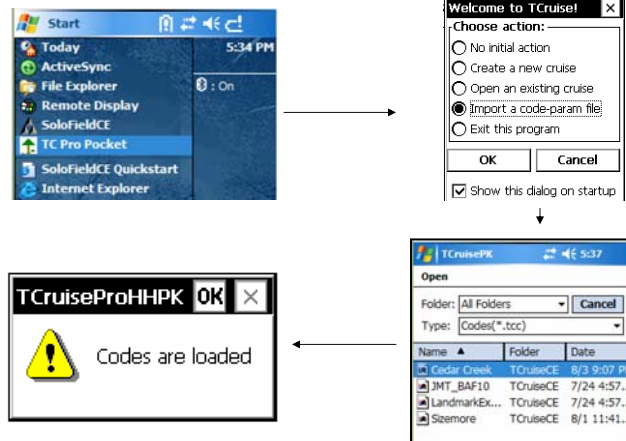
B. RTI Flowchart



Technical Support: (850) 385-3667

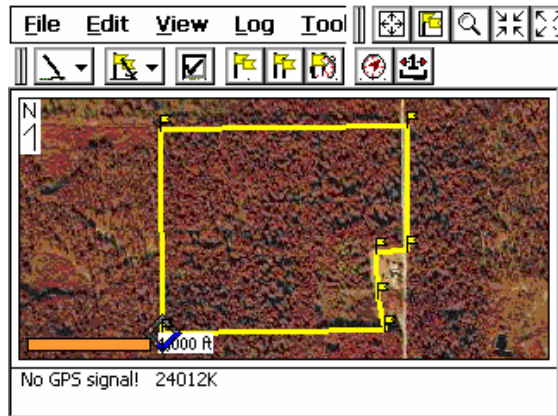
C. RTI Field Example

Step #1- Open TCruise CE and Load Template



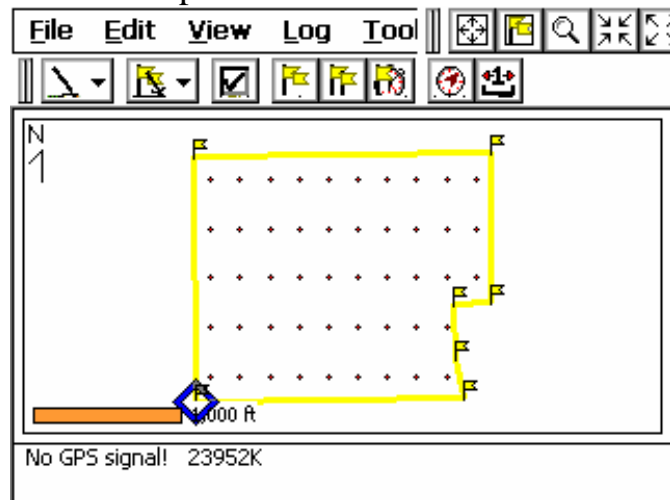
RTI Field Example

Step #2- Open SoloField CE and either GPS the Perimeter or Load Basemaps from GIS Program



RTI Field Example

Step #3- Create a Cruise Grid

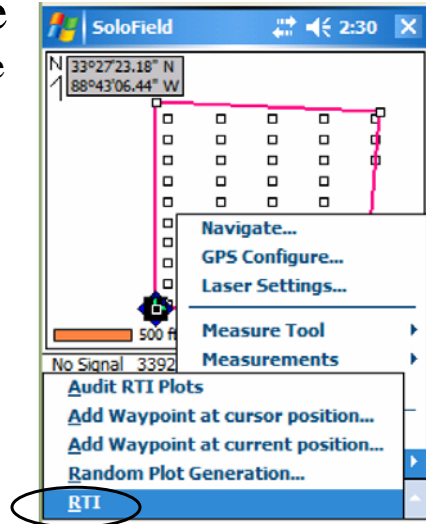


RTI Field Example

Step #4- Initiate RTI Mode

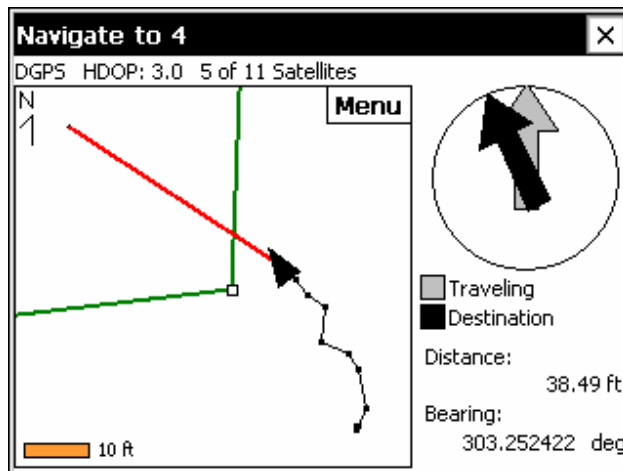
To engage the RTI scripts, you need to select **Tool > More > RTI**.

Note that you can also use the Add Waypoint scripts to add waypoints in areas that may not have been adequately sampled.



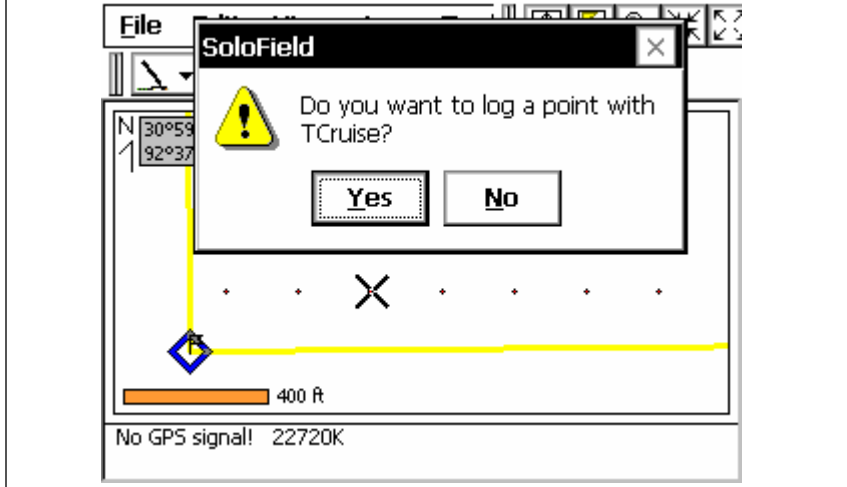
RTI Field Example

Step #4- Navigate to Plot



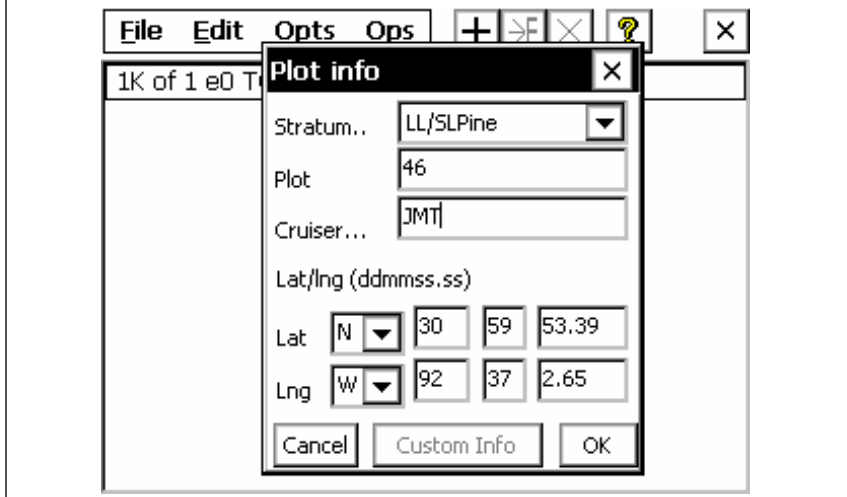
RTI Field Example

Step #5 – Plot Location



RTI Field Example

Step #6 – Enter Plot Data in TCruise



RTI Field Example

Step #7 – Enter Tree Data in TCruise

File	Edit	Opts	Ops	+	⇌	×	?	×
1K of 1 e0 TCruisePK								
spcCd	no.	dbh	hm	tm	prd	TCnnn		
PIN	1	12.0	40		AA	Leav		
PIN	1	16.0	64		AA	Leav		
RO	1	16.0	56		AA	Leav		
HIC	1	12.0	32		AA	Leav		
PIN	1	7.0	32		AA	Leav		
PIN	1	8.0	36		AA	Leav		
PIN	1	16.0	48		PW	Leav		
PIN	1				AA	Leav		
PIN	1				AA	Leav		
PIN	1				AA	Leav		

RTI Field Example

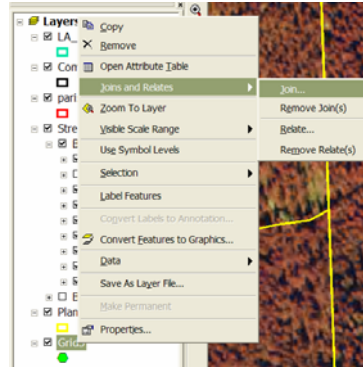
Step #8 – Do it again!

File	Edit	View	Log	Tool	+	⇌	×	?	×

D. Joining TCruise Plot Data to a Grid Shapefile

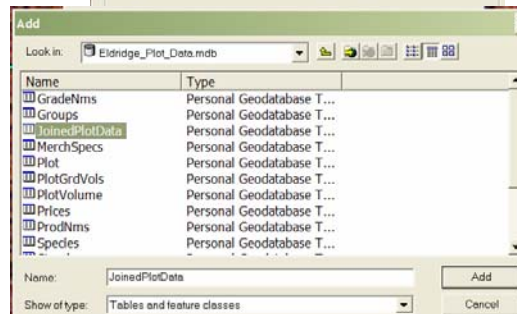
If you are using LandMark Systems' Real-Time Inventory (RTI) system to collect and process your forest inventory data, and you have the LandMark TCruise Reporting Module to export your cruises to Access, then you already have a table in those reports that summarizes the cruise info on a plot by plot basis. It is very easy to join that table to your Visited Plot shapefile that you exported out of SoloField when you finished your cruise. Here is how to do it:

1. Load the Visited Plot Shapefile in ArcGIS. Right click on that Layer and select Joins and Relates and then Join



2. Select Join Attributes from a Table and choose POINTNUM as the field to base the join on.
3. Next, select the mdb file that you created when you selected Run by Groups in TCruise. Double click that file and then double click on the JoinedPlotData table.

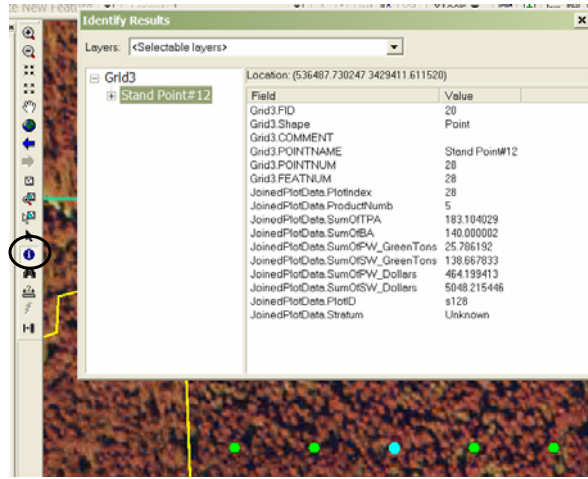
Note: Normally, you would find the correct mdb file in the My Documents\TCruisePC\tcd_Docs folder.



4. Lastly, choose PlotIndex as the field in the table to base the join on. Select OK.



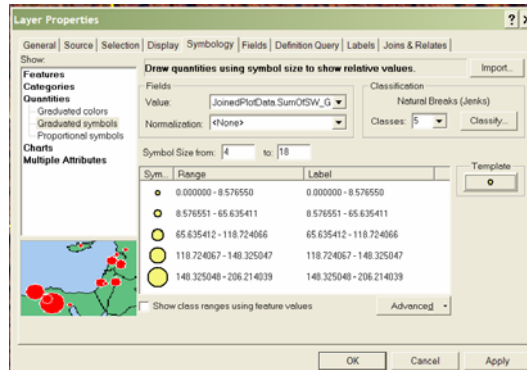
Once you are back to the main screen in ArcMap, select the Info button and then select one of the grid points. You should now see a per acre summary of the cruise data at that location.



E. Displaying Plot Characteristics using Symbology

It is very easy to graphically display plot characteristics using the different symbology patterns. Here is how:

1. Right click on the Grid3 Layer and select Properties
2. Select the Symbology Tab
3. Choose Quantities and then Graduated symbols
4. Select the Value you want to display (like SW_Green_Tons)
5. Choose the shape and color under the Template Icon.
6. Select OK.



The resulting symbol sizes relate to the values in the table now displayed in the Table of Contents.

