

# WHAT'S NEW IN FOREST INVENTORY

BY  
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# ABOUT FORESTECH RESOURCE SOLUTIONS

- LLC Partnership
- 1.5 years old
- Headquarters-Nashville, TN  
Worked with LandMark Systems for 3 years
- Authorized LandMark Systems Business Partner for 26 Northeastern States

# OUR GOALS

Our simple goal is to provide technology-based solutions, training, and support that will help our clients

- be more **ACCURATE** in their acreage, tree measurement, and timber volume estimations
- be more **EFFICIENT** in their field and office procedures
- achieve **more PROFESSIONAL** results for their businesses

# Our Clients

- Consulting Foresters
- Procurement Foresters
- Government Agencies/Universities
  - Forestry
  - Wildlife
  - Environmental
- Industrial Timber Companies
- TIMOS and REITS
- Land Managers
- Environmental Consultants
- Wildlife and Fisheries

# What's New?

- Industry Trends in Forest Inventory
- NEW Tools that provide
  - Enhanced GIS Inventory Design
  - Tighter Integrations between Office and Field Procedures
  - GIS-based Inventory Analysis and Reporting
- Future Enhancements in TCruise Desktop

# Forest Inventory Workflows

## 1. Minimal Technology

- Compass and Pace
- Acres from # plots or grid
- Estimate volumes in Excel
- Report volumes in Excel or Word
- Maps from Google Earth

## 2. GPS + Inv Program

- GPS Stand and Pace or GPS Nav
- Acres from GPS
- Calculate Volumes in Inv. Program
- Report Volumes from Inv. Program
- Maps from Terrain Navigator or fGIS

# Forest Inventory Workflows

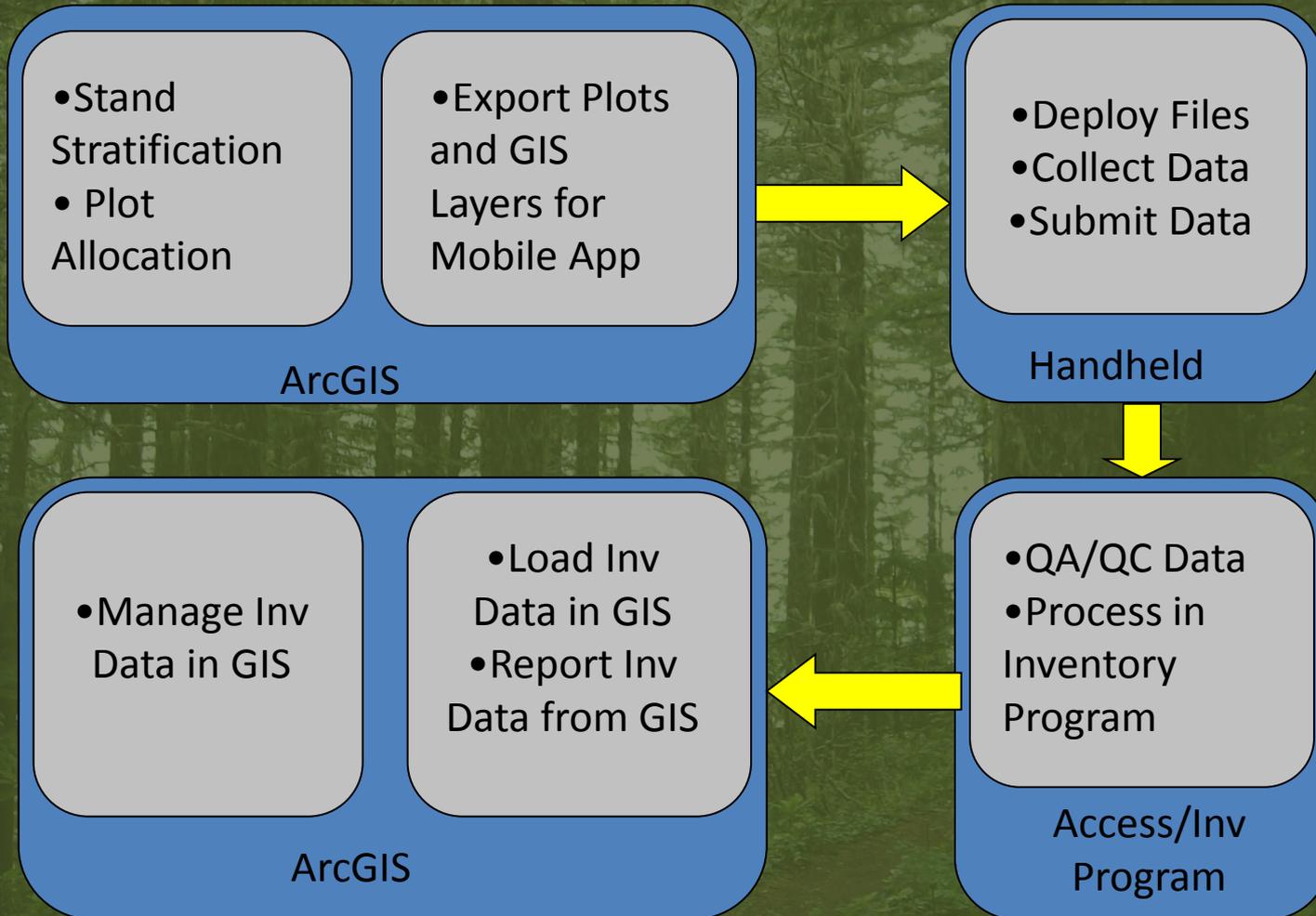
## 3. GIS + GPS + Inv Program

- GIS Stands and GPS Nav
- Acres from Stand Stratification
- Calculate Volumes in Inv. Program
- Report Volumes in Access or Sequel
- Maps from ArcGIS

## 4. GIS Integration = SilvAssist

- GIS Stands, Allocate Plots, GPS Nav
- Acres from Stand Stratification
- Calculate Volumes in Inv. Program
- Report Volumes in ArcGIS
- Maps from ArcGIS

# SilvAssist Forest Inventory Workflow



# Step #1 – Stand Selection

Eglin.mxd - ArcMap - ArcView

File Edit View Bookmarks Insert Selection Tools Window Help

1:101,684

SilvAssist 1.1

**Layers**

- Plots
- Stands**
  - BTYPE
    - Bottomland
    - Natural P...
    - Non Fore...
    - Pine Harc...
    - Plantation
    - Road
    - Tactical A...
    - Transmis...
    - Upland H...
    - Water
- Walton\_Topog
  - RGB
    - Red: Ba...
    - Green: B...
    - Blue: Ba...

**Select By Attributes**

Layer: Stands

Only show selectable layers in this list

Method: Create a new selection

[OBJECTID]  
[STANDID]  
[BTYPE]  
[DEV]  
[DEN]  
[PTNAME]

= <> Like  
> >= And  
< <= Or  
? \* ( ) Not

Is Get Unique Values Go To:

SELECT \* FROM Stands WHERE:  
[BTYPE] = 'PN' AND [DEV] = '4'

Clear Verify Help Load... Save...

OK Apply Close

# Step #2 – Plot Allocation

Eglin.mxd - ArcMap - ArcView

File Edit View Bookmarks Insert Selection Tools Window Help

1:31,939

SilvAssist 1.1

**Layers**

- Test14
  - Plots
  - Stands
    - BTYP
    - Bottomland Hardwoods
    - Natural Pine
    - Non Forest
    - Pine Hardwood
    - Plantation Pine
    - Road
    - Tactical Area
    - Transmission Lines
    - Upland Hardwoods
    - Water
- Walton\_Topo.sid
  - RGB
    - Red: Band\_1
    - Green: Band\_2
    - Blue: Band\_3

**Plot Allocation: Summary**

File Help Show Help >>

**\*Using Selected Features**

Polygon Layer:	Stands
Plot Layer:	Test14
Plot Starting Number:	1
Grid Type:	custom
Grid Units:	Chains (66ft)
Grid Along Lines:	201.168
Grid Between Lines:	80.4672
Grid Buffer:	0
Grid Azimuth:	0
Overlay Items:	STANDID, StandID

Exit << Back Run

# Solo: Waypoint Creation

The image displays a screenshot of a GIS application interface. The main window is titled "Eglin.mxd - ArcMap - ArcView" and shows a map with a yellow and green color scheme, overlaid with a grid of cyan waypoints. The map is zoomed to a scale of 1:31,939. The "Layers" panel on the left shows a list of layers: "Test14" (checked), "Plots", "Stands\_Export", and "Stands" (checked). The "Stands" layer is set to "BTYPE".

A secondary window, "LandMark Systems' Waypoint File Converter v.9.3.1.1", is open in the foreground. It has a "File" menu and a "Show Help >>" button. The "Set Point Layer" section contains a dropdown menu with "Test14" selected and a checked checkbox for "Use Selected Features" with "(432) Selected" next to it. The "Set Output file path and name" section contains a text box with the path "C:\Documents and Settings\jthompson\Desktop" and a folder icon. At the bottom, there are "Exit" and "Run" buttons.

On the right side of the ArcMap interface, a vertical toolbar is visible with the following tools: Plot Allocator, Plot Loader, Spatial Overlay, Waypoint Converter (highlighted), Stand and Stock Tables, Statistics Calculation, and Track2Acres. The "SilvAssist 1.1" extension is also indicated at the top right.

# Solo: Check Data out Using Trimble Solo 360

Eglin.mxd - ArcMap - ArcView

File Edit View Bookmarks Insert Selection Tools Window Help

1:31,939

SilvAssist 1.1

**Layers**

- Test14
- Plots
- Stands\_Export
- Stands
  - BTYPE
    - Bottomland Hardwoods
    - Natural Pine
    - Non Forest
    - Pine Hardwood
    - Plantation Pine
    - Road
    - Tactical Area
    - Transmission Lines
    - Upland Hardwoods
    - Water
- Walton\_Topo.sid
  - RGB
    - Red: Band\_1
    - Green: Band\_2
    - Blue: Band\_3

**Checkout to Trimble SOLO Forest Summary**

Map name: Eglin  
Map spatial reference: NAD\_1983\_UTM\_Zone\_16N

The following Geodatabase feature layers will have their feature definitions (schemas) checked out to FEA for new feature capture in Trimble SOLO:  
Plots  
Stands

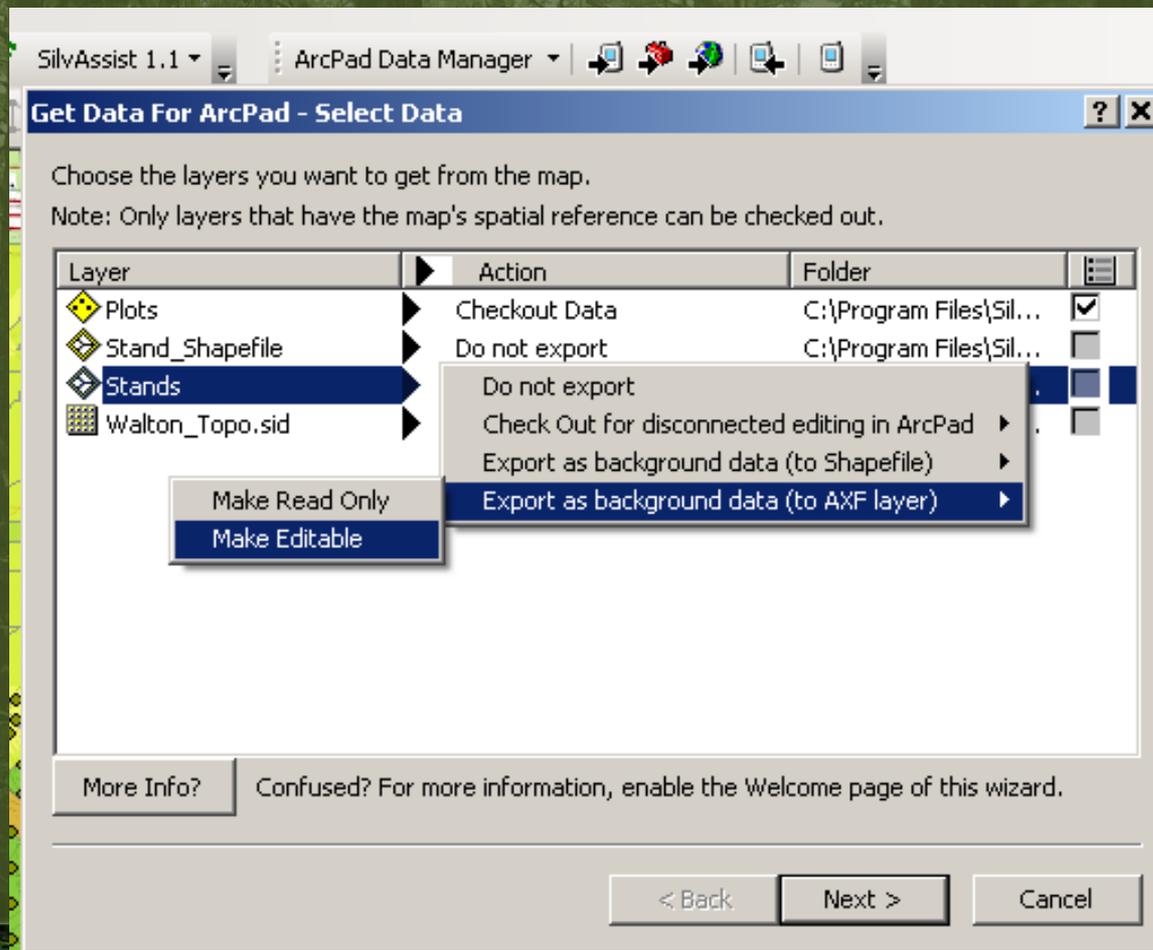
The following non-Geodatabase feature layers will be exported to Shapefiles for background display in Trimble SOLO Forest:  
Stands\_Export

The following raster layers will be exported to JPEG 2000 for background display in Trimble SOLO Forest:  
Walton\_Topo.sid

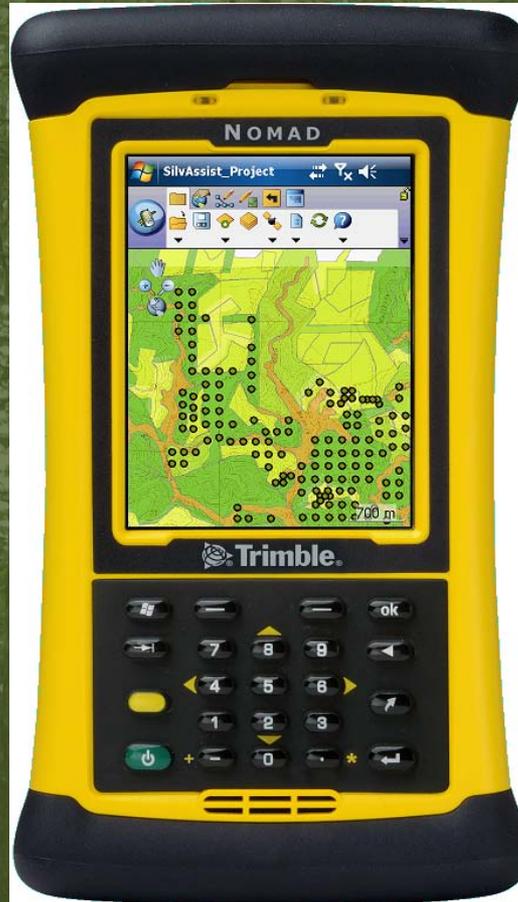
SOLO SPF file to be created:  
C:\Documents and Settings\jthompson\Desktop\USFW\Eglin.spf

OK Cancel

# ArcPad: Check Plots and Basemap Layers Using ArcPad Data Manager



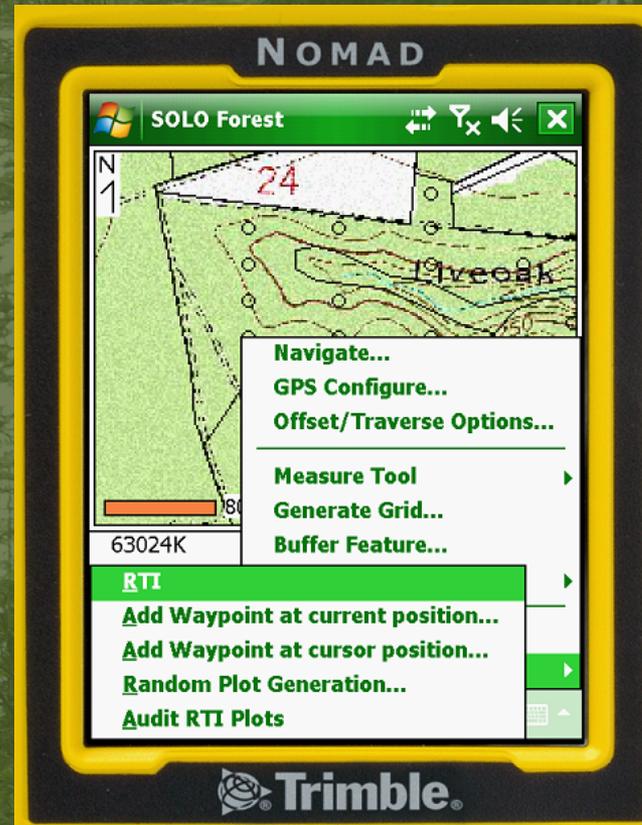
# Step #4 – Transfer the Files to the Handheld



# Step #5 – Do RTI Field

TCruise

Solo or ArcPad



# Step #6 – Process Data in TCruise Office

Mallary.tcd - Heuristic Solutions Timber Cruise Program - Template: AdvancedCruising.tct

File Edit View Templates Tools Report Setup Generate Reports Stratify Help

Single Plot Cruise Data Entry Form. Page 1 of 50.

	PlotID	Plot	Pg.	Tree	SpC	Num	Dbh	Hm	PN	Tree Product	SHt	SL1	SG1	SD1	SL2	SG2	SD2
1	185	1	0	0													
2	184	2	0	0													
3	184	2	1	1 LB		1	7.2	33.0	0	AutoAssign							
4	184	2	1	2 LB		1	6.3	30.0	0	AutoAssign							
5	184	2	1	3 LB		1	6.7	30.0	0	AutoAssign							
6	184	2	1	4 LB		1	9.1	29.0	0	AutoAssign							
7	184	2	1	5 LB		1	9.8	30.0	0	AutoAssign							
8	184	2	1	6 LB		1	6.9	32.0	0	AutoAssign							
9	131	3	0	0													
10	131	3	1	1 LB		1	10.3	31.0	0	AutoAssign							
11	131	3	1	2 LB		1	10.1	32.0	0	AutoAssign							
12	131	3	1	3 LB		1	11.2	33.0	0	AutoAssign							
13	131	3	1	4 LB		1	12.2	27.0	0	AutoAssign							
14	131	3	1	5 LB		1	12.5	33.0	0	AutoAssign							
15	131	3	1	6 LB		1	9.4	29.0	0	AutoAssign							
16	131	3	1	7 LB		1	9.9	31.0	0	AutoAssign							
17	131	3	1	8 LB		1	9.8	30.0	0	AutoAssign							
18	131	3	1	9 LB		1	11.4	33.0	0	AutoAssign							
19	131	3	1	10 LB		1	10.6	33.0	0	AutoAssign							
20	131	3	1	11 LB		1	8.2	30.0	0	AutoAssign							
...	...	...	...	...		...	...	...	...	...							

Hide tree product column

# Step #7 – Load TCruise Data in Geodatabase

The screenshot displays the ArcMap interface with the Plot Loader v.9.3.1.1 dialog box open. The dialog is configured with the following settings:

- Working Geodatabase items:
  - Plots Layer: Plots
  - Plots ID Field: PlotsID
  - Stands Layer: Stands
  - Stands ID Field: STANDID
- Input Data items:
  - LandMark Export Database(s): C:\Program Files\SilvAssist\Geodatabases\Test Data2\SilvAssist\_LandMarkExport.mdb
- Load Options:
  - Run Spatial Overlay for Plots
  - Over-write Plots features, Plot and Tree t...
- Load Name Text: (empty field)

The Load Data Status window shows the following results:

Load Data Status	
C:\Program Files\SilvAssist\Geodatabases\Test Data2\SilvAssist_LandMarkExport.mdb	
Plot Records Read:	1218
Plot Records Loaded:	1218 <b>Verified</b>
Plot Records Rejected:	1 <b>Verified Relationship</b>
<hr/>	
Tree Records Read:	7704
Tree Records Loaded:	7704 <b>Verified</b>
Tree Records Rejected:	0

Running Spatial Overlay... 81%

# Step #8 – Run Tables and Stats from ArcGIS

The image shows a Microsoft Excel spreadsheet with a table of forest data and a dialog box for running reports. The Excel spreadsheet has columns for STANDID, DbhCI, Trees\Ac., BA, PWT, SWT, and BdFt. The dialog box, titled 'LandMark Systems' Stand & Stock Reports v.9.3.1.1', has fields for Plots Layer (Plots), Plots ID Field (PlotID), Plots StandID Field (StandID), Stands Layer (Stands), Stands ID Field (STANDID), Acres Field (ACRES), and a Grouping Field (STANDID). There are 'Exit' and 'Run' buttons at the bottom of the dialog box.

STANDID	DbhCI	Trees\Ac.	BA	PWT	SWT	BdFt
40708462	5					
	6	38.8	8.0	4.0	0.0	
	7	16.1	4.0	1.8	0.0	
	8	5.6	2.0	1.0	0.0	
	9	5.0	2.0	1.0	0.0	
	10	3.9	2.0	1.1	0.0	
	11	2.9	2.0	1.1	0.0	
	13					
	14					
	16					
40708462 Total		72.3	20.0	10.1	0.0	
40708851	5					
	6	20.6	4.0	1.8	0.0	
	7	13.6	3.6	1.7	0.0	
	8	9.6	3.2	1.7	0.0	
	9	6.3	2.8	1.4	0.0	
	10	3.6	2.0	1.1	0.0	
	11	0.6	0.4	0.2	0.0	
	12	1.5	1.2	0.2	0.4	
	13					
	14	0.4	0.4	0.0	0.2	28.3

# Step #9 – Run Reports from ArcGIS



LandMark Spatial Solutions, LLC  
4635 County Lake Road,  
Starkville, MS 39759  
USA

Phone: 866-395-5440  
Fax: 886-209-1387  
Email: [jthompson@lmssmail.com](mailto:jthompson@lmssmail.com)  
Website: [www.landmarkspatialolutions.com](http://www.landmarkspatialolutions.com)

## Summary Report By Class/Group/Product

Tract: Mallery  
Cruiser:  
Location: Perry County  
Owner:  
Cruise Date: 2-5-08

Total Acres: 795.20  
Number of Plots: 328  
Cruise Method: Plot  
Plot Size/BAF: 0.10

Pine									
Product	Total Tract			Per Acre			Average Tree		
	Trees	DBF		B.A	Trees	DBF	DBH	MerchHt	
<b>Loblolly</b>									
Sawtimber	6,109	537,946		7.2	8	676.5	13.2	38.4	
Chipsaw	36,439	754,740		23.9	46	949.1	9.7	36.1	
Pulpwood	22,353	0		9.1	28	0.0	7.6	33.8	
SM	145	0		0.0	0	0.0	1.4	36.7	
Topwood	0	0		0.0	0	0.0	0.0	0.0	
<b>Group Total</b>	<b>65,046</b>	<b>1,292,686</b>		<b>40.5</b>	<b>82</b>	<b>1,625.6</b>	<b>9.3</b>	<b>35.2</b>	
<b>Class Total</b>	<b>65,046</b>	<b>1,292,686</b>		<b>40.5</b>	<b>82</b>	<b>1,625.6</b>	<b>9.3</b>	<b>35.2</b>	

Hardwood									
Product	Total Tract			Per Acre			Average Tree		
	Trees	DBF		B.A	Trees	DBF	DBH	MerchHt	
<b>Ash</b>									
Sawtimber	315	50,967		0.7	0	64.1	17.7	34.3	
<b>Group Total</b>	<b>315</b>	<b>50,967</b>		<b>0.7</b>	<b>0</b>	<b>64.1</b>	<b>17.7</b>	<b>34.3</b>	

# Step #10 – Prepare Data for Growth and Yield

**FVS Table Generation: Inputs**

File Options About Show Help >>

Working Geodatabase Items

**Plots Layer:** Plots

**Plots ID Field:** PlotID

**Plots StandID Field:** StandID

**Stands Layer:** Stands

**Stands ID Field:** StandID

(10) Selected

Set Variant and National Forest:

- National Forests in Florida
  - Apalachicola
  - Lake George
  - Osceola
  - Seminole
  - Wakulla
  - Kispiokee

Set

Variant: SN Forest: Apalachicola

Exit << Back Next >>

**Species Matching**

File

Loaded File: [New File]

H:\Projects\CON75\_Fort Pickett\_Inventory2010\data\data\_working\wkg\_geodatabases\FIPickett\_MTC\_Inventory2010\_wkg.mdb

Variant: SN Choose Variant: SN

**Data**

- Black Cherry
- Blackgum
- Black Oak
- Black Walnut
- Cedar
- Chestnut Oak
- Elm
- Hickory
- Hornbeam

<< Match >>

**FVS**

- sassafras
- basswood species
- elm species
- winged elm
- American elm
- slippery elm
- other softwood species
- other hardwood species
- other species

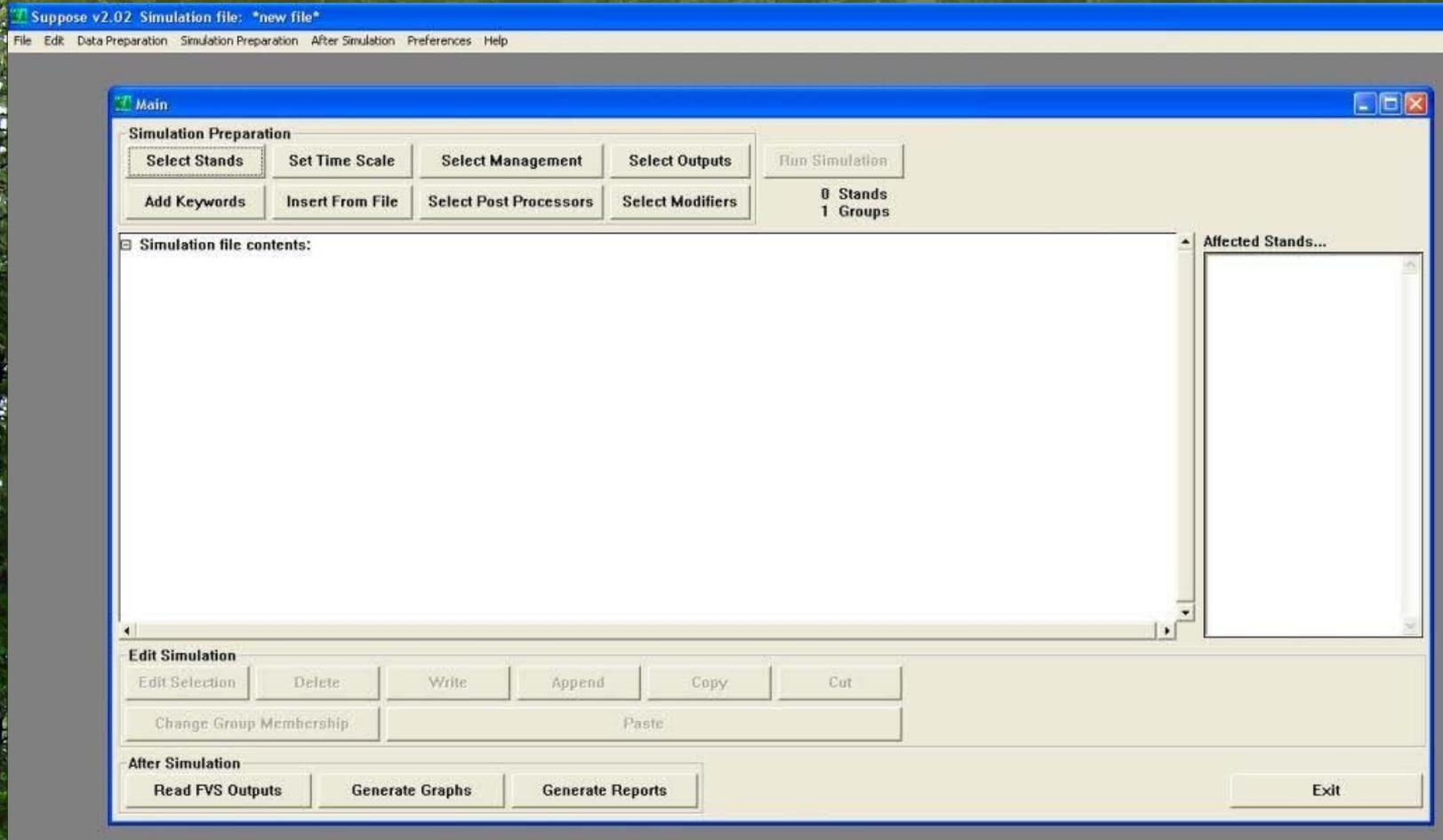
**Matches**

Data	FVS
Beech	AB
Black Walnut	W/N
Elm	AE

Remove Clear

Exit Save

# Prepare Data for Growth and Yield



# Future TCruise Program Enhancements

- Create Super Groups
- More Products - 4 Primary + 12 Extended Products
- Turn Products On/Off and rearrange order for handheld
- More Grades – 22/Species Group
- More Custom Info Choices – LLA and Custom Dialogue Boxes

# Super Groups

TCruise - Heuristic Solutions Timber Cruise Program - Template:

File Edit View Templates Tools Report Setup Generate Reports Stratify Help

SETUP Params Specs/Price Volume Fnxs Report Options

WORKUP Load .tct Import .tce Tract Info Print Tree Data New Plot Edit Plot Run By Group GIS View Errors View Report Page Up Page Down SAVE Save By Plot Save By Group

### Group Name List

Names of primary species groups and their assignment to shorter groups for thye purpose of external report modules.

Group name	By 2 Grouping	By 4 Grouping	By 8 Grouping
1 Pine	Pine	Pine	TBA_1
2 Dak	Hardwood	Hard Hardwood	TBA_1
3 Hickory	Hardwood	Hard Hardwood	TBA_1
4 Gum	Hardwood	Soft Hardwood	TBA_1
5 Misc. Pine	Pine	Pine	TBA_1
6 Misc. Hardwood	Hardwood	Hard Hardwood	TBA_1
7 Group 7	Pine	Pine	TBA_1
8 Group 8	Pine	Pine	TBA_1
9 Group 9	Pine	Pine	TBA_1
10 Group 10	Pine	Pine	TBA_1
11 Group 11	Pine	Pine	TBA_1
12 Group 12	Pine	Pine	TBA_1
13 Group 13	Pine	Pine	TBA_1
14 Group 14	Pine	Pine	TBA_1
15 Group 15	Pine	Pine	TBA_1
16 Group 16	Pine	Pine	TBA_1
17 Group 17	Pine	Pine	TBA_1
18 Group 18	Pine	Pine	TBA_1
19 Group 19	Pine	Pine	TBA_1
20 Group 20	Pine	Pine	TBA_1
21 Group 21	Pine	Pine	TBA_1
22 Group 22	Pine	Pine	TBA_1
23 Group 23	Pine	Pine	TBA_1
24 Group 24	Pine	Pine	TBA_1
25 Group 25	Pine	Pine	TBA_1

Names of external report By n Groupings

	By 2 Grouping Names	By 4 Grouping Names	By 8 Grouping Names
1	Pine	Pine	TBA_1
2	Hardwood	Hard Hardwood	TBA_2
3		Soft Hardwood	TBA_3
4		Cypress	TBA_4
5			TBA_5
6			TBA_6
7			TBA_7
8			TBA_8

Cancel OK

# Handheld Product Choices

**Set list display items** [X]

	List item	S	M
1	AutoAssign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Pulpwood	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	CSorTie	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	Peeler	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	Sawlog	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6	G-AutoAssign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7	G-Pulpwood	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8	G-CSorTie	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9	G-Peeler	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10	G-Sawlog	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11	Cull	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12	U01	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13	U02	<input checked="" type="checkbox"/>	<input type="checkbox"/>
14	U03	<input checked="" type="checkbox"/>	<input type="checkbox"/>
15	U04	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16	U05	<input checked="" type="checkbox"/>	<input type="checkbox"/>
17	U06	<input checked="" type="checkbox"/>	<input type="checkbox"/>
18	U07	<input checked="" type="checkbox"/>	<input type="checkbox"/>
19	U08	<input checked="" type="checkbox"/>	<input type="checkbox"/>
20	U09	<input checked="" type="checkbox"/>	<input type="checkbox"/>
21	U10	<input checked="" type="checkbox"/>	<input type="checkbox"/>
22	U11	<input checked="" type="checkbox"/>	<input type="checkbox"/>
23	U12	<input checked="" type="checkbox"/>	<input type="checkbox"/>
24	G-U01	<input checked="" type="checkbox"/>	<input type="checkbox"/>
25	G-U02	<input checked="" type="checkbox"/>	<input type="checkbox"/>
26	G-U03	<input checked="" type="checkbox"/>	<input type="checkbox"/>
27	G-U04	<input checked="" type="checkbox"/>	<input type="checkbox"/>
28	G-U05	<input checked="" type="checkbox"/>	<input type="checkbox"/>
29	G-U06	<input checked="" type="checkbox"/>	<input type="checkbox"/>
30	G-U07	<input checked="" type="checkbox"/>	<input type="checkbox"/>
31	G-U08	<input checked="" type="checkbox"/>	<input type="checkbox"/>
32	G-U09	<input checked="" type="checkbox"/>	<input type="checkbox"/>
33	G-U10	<input checked="" type="checkbox"/>	<input type="checkbox"/>
34	G-U11	<input checked="" type="checkbox"/>	<input type="checkbox"/>
35	G-U12	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Column legend

S = If checked, show item in drop down list  
If not checked, do not show item in drop down list

D = Use default show/hide state for the drop down list item. The D option is not available for the default list.

M = Make selection the default selection

Hide All

Show all

Default All

Cancel OK

**Reorder list** [X]

AutoAssign  
Pulpwood  
CSorTie  
Peeler  
Sawlog  
G-AutoAssign  
G-Pulpwood  
G-CSorTie  
G-Peeler  
G-Sawlog  
Cull  
U01  
U02  
U05  
U03  
U04  
U06  
U07  
U08  
U09  
U10  
U11  
U12  
G-U01  
G-U02  
G-U03  
G-U04  
G-U05  
G-U06  
G-U07  
G-U08  
G-U09

Move selected up

Move selected down

Cancel Clear selections OK

# More Grades

TCruise - Heuristic Solutions Timber Cruise Program - Template:

File Edit View Templates Tools Report Setup Generate Reports Stratify Help

SETUP Params Specs/Price Volume Fnxs Report Options

WORKUP Load .tct Import .tce Tract Info Print Tree Data New Plot Edit Plot Run By Group GIS View Errors View

### Default and by species group grade names and codes

	Group name	Default grade name	New grade name	Default code	New code	Default type	New type
1	Default	Grade 1	Grade 1	LG_1	LG_1	Saw wood	Saw wood
2		Grade 2	Grade 2	LG_2	LG_2	Saw wood	Saw wood
3		Grade 3	Grade 3	LG_3	LG_3	Saw wood	Saw wood
4		Grade 4	Grade 4	LG_4	LG_4	Saw wood	Saw wood
5		Grade 5	Grade 5	LG_5	LG_5	Saw wood	Saw wood
6		Grade 6	Grade 6	LG_6	LG_6	Saw wood	Saw wood
7		Grade 7	Grade 7	LG_7	LG_7	Saw wood	Saw wood
8		Grade 8	Grade 8	LG_8	LG_8	Saw wood	Saw wood
9		Grade 9	Grade 9	LG_9	LG_9	Saw wood	Saw wood
10		Grade 10	Grade 10	LG10	LG10	Saw wood	Saw wood
11		Grade 11	Grade 11	LG11	LG11	Saw wood	Saw wood
12		Grade 12	Grade 12	LG12	LG12	Saw wood	Saw wood
13		Grade 13	Grade 13	LG13	LG13	Saw wood	Saw wood
14		Grade 14	Grade 14	LG14	LG14	Saw wood	Saw wood
15		Grade 15	Grade 15	LG15	LG15	Saw wood	Saw wood
16		Grade 16	Grade 16	LG16	LG16	Saw wood	Saw wood
17		Grade 17	Grade 17	LG17	LG17	Saw wood	Saw wood
18		Grade 18	Grade 18	LG18	LG18	Saw wood	Saw wood
19		Grade 19	Grade 19	LG19	LG19	Saw wood	Saw wood
20		Grade 20	Grade 20	LG20	LG20	Saw wood	Saw wood
21		Grade 21	Grade 21	LG21	LG21	Saw wood	Saw wood
22		Grade 22	Grade 22	LG22	LG22	Saw wood	Saw wood

Cancel OK

# Custom Info Choices

TCruise - Heuristic Solutions Timber Cruise Program - Template:

File Edit View Templates Tools Report Setup Generate Reports Stratify Help

### Custom Tree Level Information Definition

Implement tree level user defined custom information

	Use	Field label	Data type	Min value	Max value	Default value	Decimals	View list	Default string	Max str len	Col width	0	1	2	
1	<input checked="" type="checkbox"/>	Length	Numeric	0.000	99.000	0.000	0				6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2	<input checked="" type="checkbox"/>	Fungus	Character							3	6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3	<input checked="" type="checkbox"/>	Nut	Drop list					Edit list		3	6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4	<input checked="" type="checkbox"/>	Type	Drop down					Edit list		3	6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5	<input checked="" type="checkbox"/>	Lat/Lng	Lat/Lng								6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6	<input checked="" type="checkbox"/>	Water	Dialog			0.000					6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7	<input type="checkbox"/>		Numeric	0.000	99.000	0.000	0				6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8	<input type="checkbox"/>		Numeric	0.000	99.000	0.000	0				6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9	<input type="checkbox"/>		Numeric	0.000	99.000	0.000	0				6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10	<input type="checkbox"/>		Numeric	0.000	99.000	0.000	0				6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11	<input type="checkbox"/>		Numeric	0.000	99.000	0.000	0				6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12	<input type="checkbox"/>		Numeric	0.000	99.000	0.000	0				6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13	<input type="checkbox"/>		Numeric	0.000	99.000	0.000	0				6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
14	<input type="checkbox"/>		Numeric	0.000	99.000	0.000	0				6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
15	<input type="checkbox"/>		Numeric	0.000	99.000	0.000	0				6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
16	<input type="checkbox"/>		Numeric	0.000	99.000	0.000	0				6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
17	<input type="checkbox"/>		Numeric	0.000	99.000	0.000	0				6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
18	<input type="checkbox"/>		Numeric	0.000	99.000	0.000	0				6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
19	<input type="checkbox"/>		Numeric	0.000	99.000	0.000	0				6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
20	<input type="checkbox"/>		Numeric	0.000	99.000	0.000	0				6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

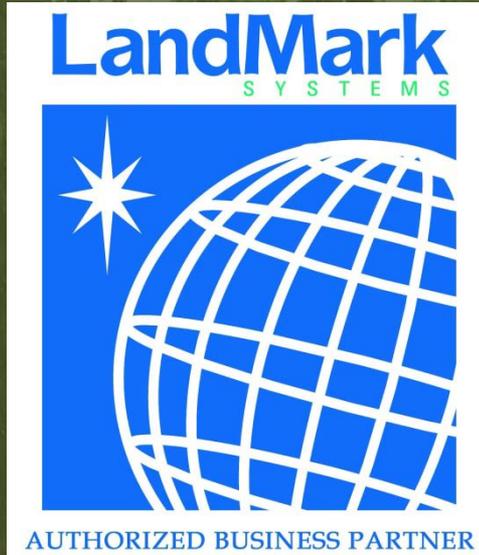
0 = Make new measurement record read only    1 = Make re-measurement record read only    2 = Make previous measurement record read only

Check the Required box (Req) to make the field required.    Check no selection (NS) box if a no selection is allowed for a drop list combo box

Set the Default value to the 0 based index of the dialog in the dll call for the Dialog data type



# Our Partners



A photograph of a dense forest with tall, thin trees and a dirt path leading through them. The text is overlaid in red.

**Questions?**

**THANK YOU!!!**

**[WWW.FORESTECHRESOURCESOLUTIONS.COM](http://WWW.FORESTECHRESOURCESOLUTIONS.COM)**

**615-972-6115**