

Mississippi Inventory & Stewardship Spatial Tracking (MISST)

User's Guide

Version 1.2

MISST is a Web-based GIS application designed specifically to capture information necessary to develop Forest Stewardship plans and data we must report to the US Forest Service annually. MISST is directly connected to a live database, so the entries and edits you make are captured by our servers in real time.

MISST is only intended to be used for Forest Stewardship and Forest Prescription property / plan creation. The workflows described in this document are only to be used for these purposes. It is **very important** to be clear as to the purpose of a plan (Stewardship / Prescription / or neither).

This User's Guide is intended to provide a minimum level of guidance necessary to accomplish required data entry and reporting tasks in MISST. It does include some additional "tips and tricks", but is not a comprehensive guide to the GeoCortex platform that MISST is built on or other associated technologies being leveraged by the system.

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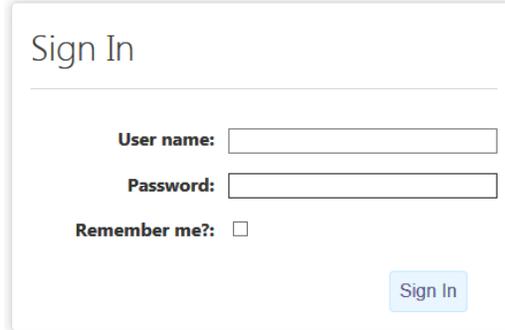
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How to Create a New Forest Management Plan

1. Using Internet Explorer, open the following URL: <http://phobos.mfc.state.ms.us/SilverlightViewer>. Login using your assigned username and password.



Sign In

User name:

Password:

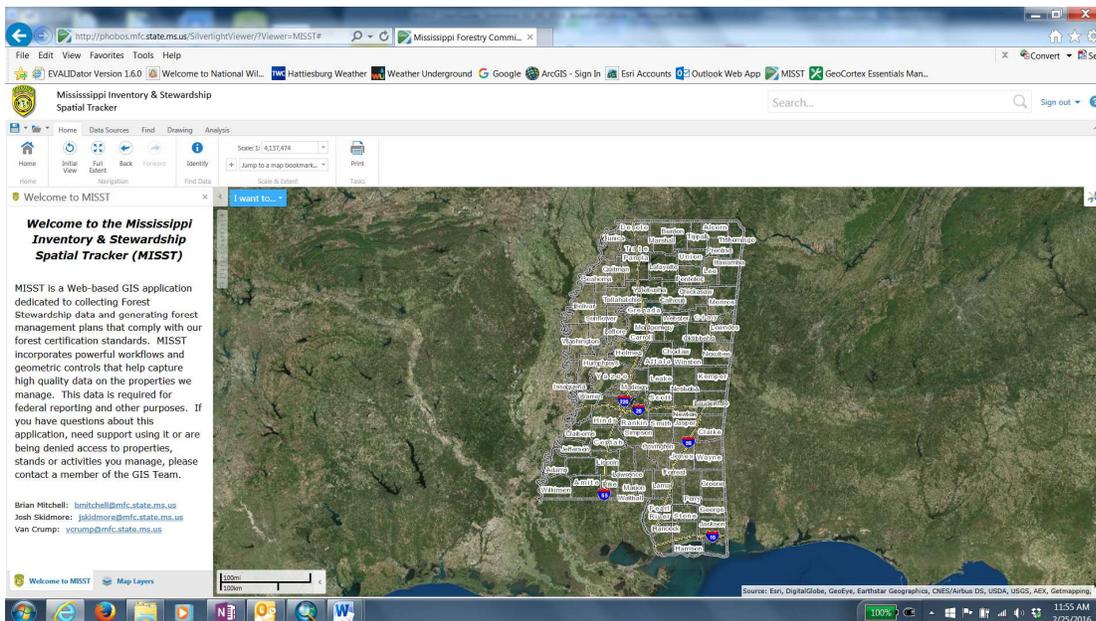
Remember me?:

Sign In

After signing in, you will see the Home pane on the left side of the map viewer, which describes the purpose of the application. You can close this pane by clicking the “x” in the upper right corner.



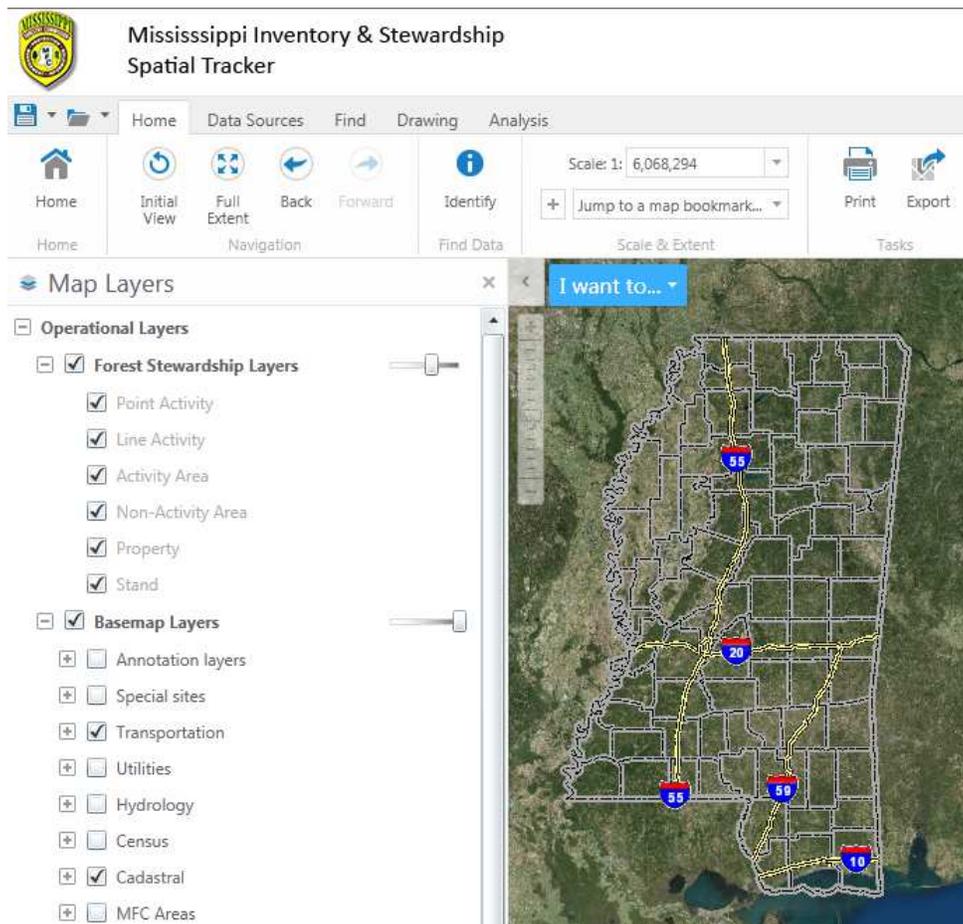
When successfully logged in, you should see the MISST default map view.



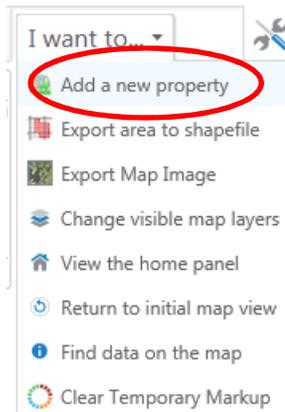
2. After either closing the Home pane, or clicking on the Map Layers tab on the bottom left, you will see the map layers available in the table of contents (ToC) to the left. You can also open or close the toolbar using the “Toolbar” icon on top right corner of the map view.



Map layers can be turned on and off by checking / unchecking the boxes next to their name. Note that if a layer is “grayed out”, it’s display is being controlled by the map scale and it will not display until you are zoomed in close enough. The Forest Stewardship layers for example will not display when zoomed out beyond 1:250,000.



3. Zoom into the area where you want to create the new property. Click the “I want to...” menu and choose “Add a new property”.



You will be prompted to draw the new property. Click to add each new vertex, then double clicking to end the drawing. If you mess up, you may cancel and restart the process, or finish the polygon and fix it later.

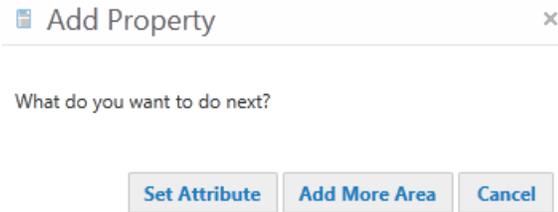


- Note: If the new property is adjacent to an existing property, you should click inside the existing property using it as a “cookie cutter” to form the adjacent boundary. **This will eliminate topological errors between the separate, adjacent properties.**
- Note: Always zoom into 500 ft. or less for mapping purposes (bottom left of map screen)



(This is also a scale of 1:7,000, which can be viewed and customized from the home tab)

4. After double clicking to end the drawing session for the new property, you will be prompted to either “Set Attributes”, “Add More Area” or “Cancel” the add property process. The “Add More Area” function allows you to either expand the existing property boundary or, if a single property is disconnected in two or more parts (the edges do not touch), you can create a multi-part property where the separate, disconnected parts are all considered one property.



- a. If you need to expand the existing property, make sure to click inside the existing area to start and when you finish digitizing the expanded area.
- b. If you need to create a multi-part polygon (disconnected areas that are part of the same property), simply draw your new property and it will save them both (or all) as the same property.
- c. When you are satisfied with the geometry of the new property, choose the “Set Attributes” option and begin filling out the attribute information as prompted.

Prompt 1: Basic Info

- * Note: **Be clear** if an entered **property type** is a Stewardship or Prescription or Neither
- * Note: The plan type will always be “New” unless editing an existing property
- * Note: A Stewardship Plan is any plan that addresses the required Stewardship components.
- * Note: A Prescription Plan is any plan we make recommendations on but did not complete the Stewardship requirements (some CRP/WHIP/some large FRDP)

* Note: The “Plan Start Date” defaults to the current date and the “Plan End Date” defaults to 10 years in the future.

Prompt 2: Client Info

Add Property - Client ×

After typing 3 characters, all client names which contains partially are shown to pick up.

Currently there are 9411 clients to choose.

NOTE: You need to choose only from the suggested client names.

Client Name:

You can either create a new client by clicking the “Add New Client” button, or choose an existing client by typing in the existing client’s name.

- Note: After typing the first three letters of the client name a list of matching available options will begin to auto populate that you can click on to select from.
- Note: There is no way for users to edit or delete the client data once it is entered. **Do it right the first time.**
 - If there is a need to change or remove client information, please contact the system administrator with your request.

If you choose “Add New Client” you will be presented a form to enter the new client’s information:

Add Property - Add a new client ×

Client Type:

Name

First:

Middle:

Last:

Address

Street Number:

Street Name:

City:

State:

Zip Code (Postal Code):

Country:

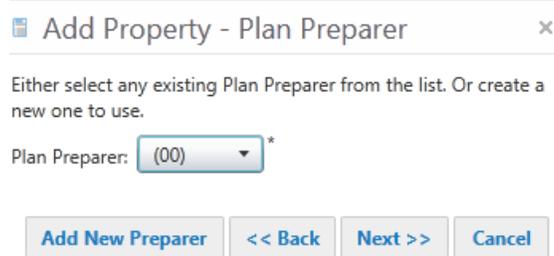
Phone Number(s)

Primary Phone:

Secondary Phone:

e-mail:

Prompt 3: Preparer Info



Either select an existing plan preparer from the dropdown menu or add a new one. Preparers should only have 1 entry...**only do this once!**

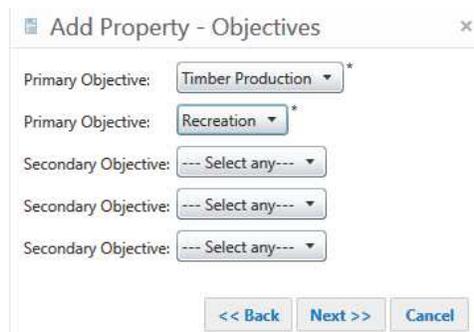
- Note: If there is a need to change or remove Preparer information, please contact the system administrator with your request.

Prompt 4: Property Name



The default name is the landowner's name and phone number. This will show up on some of the maps. Either accept the default property name, or enter a new one.

Prompt 5: Property Objectives



- Note: You must select at least two “Primary Objectives” (even if it is not a Stewardship Plan) and can select up to a total of five objectives.

Prompt 6: Certification Info

Add Property - Certification

EQIP Plan?
 Yes No

CRP Plan?
 Yes No

Registered Tree Farm?
 Yes No
If registered user enters the official ATFS# (integer)
Tree Farm #:

Fully Certified Stewardship Plan?
 Yes No

Date Fully Certified

Referenced Data
County: Lamar
FIPS: 73
DISTRICT: Southeast District
STR: 35 4 N 15 W

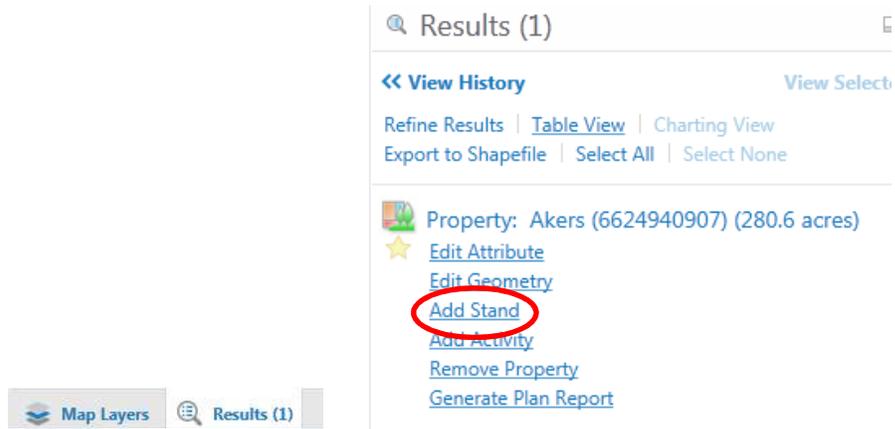
- Note: A “Registered Tree Farm” is one that has been approved and already has a Tree Farm number. A “Fully Certified Plan” is one that has filled out all the necessary paperwork for certification and has been approved by the Stewardship Committee. In this example, we are creating a new plan (not a revision) and this data is not yet known. These two items can be entered later once they are approved.

Either accept or change the default selections. The county name, county FIPS code, MFC district and section, township and range are auto-populated. Press the “Submit” button to complete the workflow and create the new property.

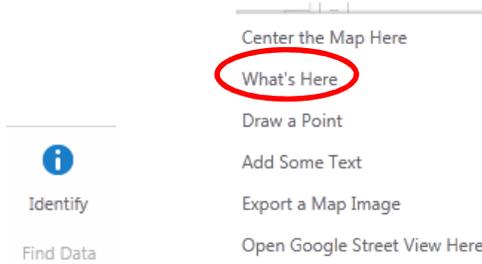
5. Add Stands and Stand Data

- Each stand will be created, then attributes for that stand added. Unlike past applications, you cannot just make all the stands for a property first then go assign attributes. This application handles each stand one at a time.

Stands can be created by selecting the “Add Stand” option. The “Add Stand” option is under the property name in the “Result” tab (bottom left of screen).



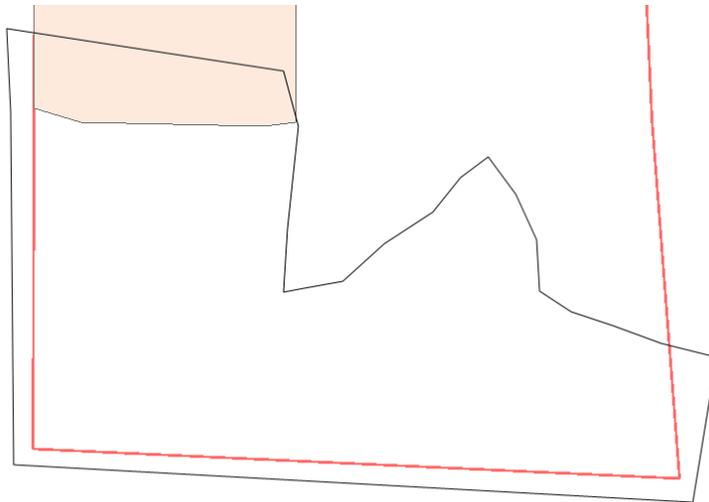
If you cannot see this option in the results window, right click within the property where you want to create a new stand and choose “What’s Here” from the pop-up menu (or use the identify tool).



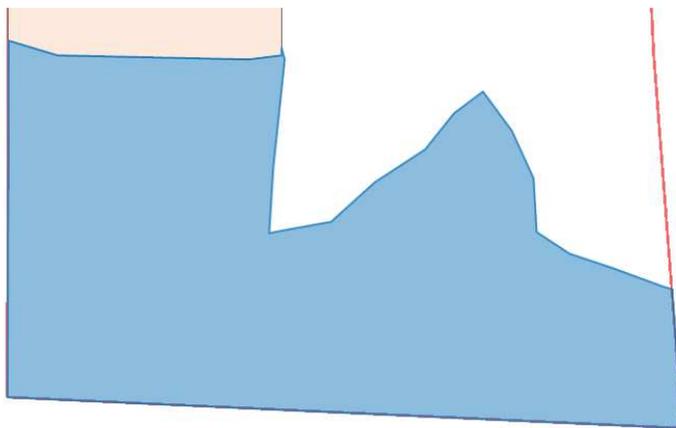
- Note: Called the “What’s Here” Trick...right click on the map, choose “What’s Here”

You will be prompted to begin drawing the stand. Click once to add each new vertex and double-click to finish the stand drawing.

- Note: If you make a mistake on geometry, finish the polygon and click “Cancel” or finish the polygon and then correct the geometry after the attributes have been set .
- Note: Polygon geometry is not saved until AFTER the attributes have been set.



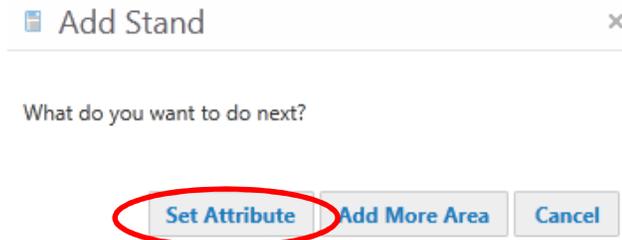
This original line....



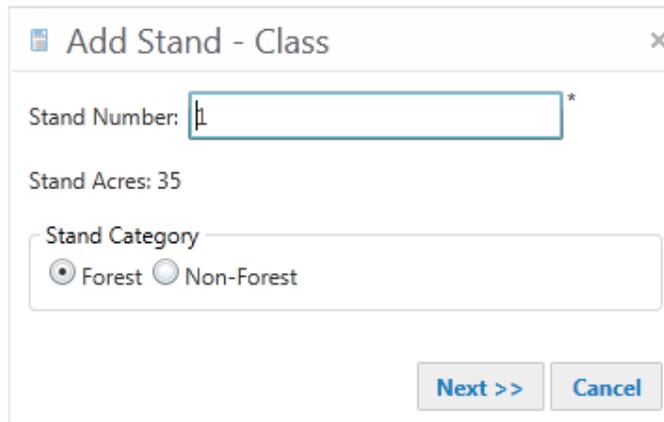
Becomes this stand...

- Note: When editing stands, all boundaries are clipped to existing stand or property boundary lines. **Use this important geometric function to ensure the shared boundaries match exactly.** Don't try and follow an existing line when making stands, they clip...there is no need.

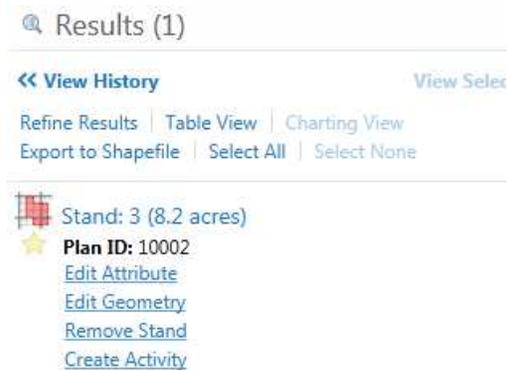
Once you complete the geometry, you will be asked what you want to do next. Choose “Set Attribute”.



You will be required to enter stand attributes about each stand. Stand number is auto-assigned to the next available number, however a user may also type in a different label if that is desired. You must also choose Forest or Non-Forest.



Your choice of “Forest” or “Non-Forest” will dictate what happens when you click “Next”. You will either be taken back to the Results tab, or you will be asked to provide data for the stand. **In most cases there is no need to designate a non-forested stand!**



If you Choose Non-Forest...you are done

Add Stand - Operability / Data

Forest Class

General Species Class: --- Select any ---

SAF Cover Type: --- Select any ---

Product Class: --- Select any ---

Year of Origin:

Operability

Landform: Bottom

SMZ
 Yes No

Is Stand Operable?
 Yes No

Inoperable Reason: --- Select any ---

Data

Pine TPA: *

Hdwd TPA: *

Average Pine DBH: *

Average Hdwd DBH: *

Last Cruise Date: 1/27/2016

<< Back Next >> Cancel

If you choose Forest, you will see...

When you have filled out the Stand Data, click “Next” and you will see the Basal Area calculation for that stand. Much of this stand information will be carried over to the Plan Report. Be wise with your data! Once done, click “Submit” to finish the stand.

Add Stand - Data

Stand Data

Pine BA: 122.715
Hwda BA: 39.2688
Total BA: 161.9838

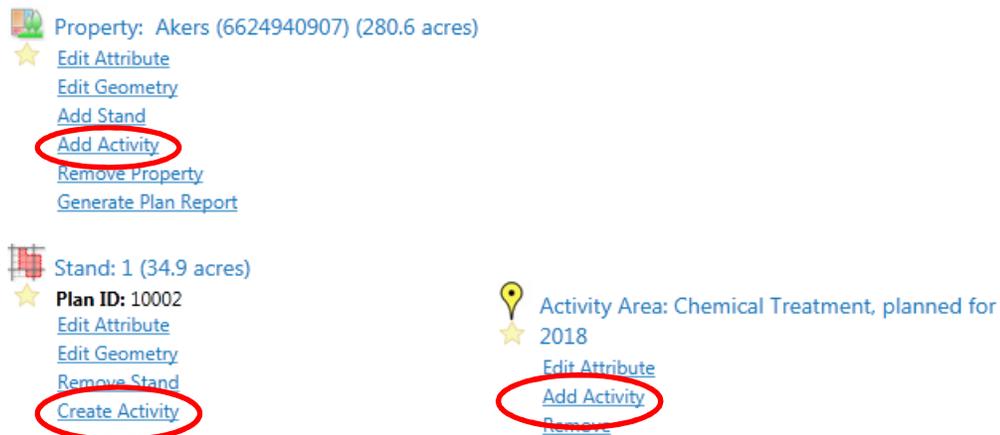
<< Back Submit Cancel

To start the next stand, simply do the “What’s Here” trick inside the property polygon and repeat the process. Finish all stands for the property and then move on to activities.

6. Add Activities – **All activities are by the state fiscal year (July 1 – June 30)**

Activities have their own geometry. Activities are separate from stands in the MISST environment. Activities can be created inside or outside of stand and property boundaries. Activities are tied to the plan ID number they were created in.

There are two ways to add the geometry for an activity. You can either copy an existing boundary (an option under any stand or existing activity) or create new geometry (under the property).



At the **property** level, you can create point, line or polygon activities, as well as show non-activity areas that can be used for “other” mapping purposes (to show a polygon feature that no activities are being planned or to show where FRDP cost share will occur). At the **stand and activity** level, you can only create polygon activities.

To add an activity in a stand (to copy the exact geometry), right click on the stand that you want to schedule an activity for then choose “What’s Here” from the pop up menu. Click the “Create Activity” link under the appropriate stand’s name in the results to initiate the workflow. Proceed through the workflow entering the activity information as prompted. Click “Submit” to complete the workflow and register the data to the database. This also works the same with the “Activity Areas”.

To add an **activity at the property level**, right click on the property that you would like the activity associated with, then choose “What’s Here” from the popup menu. Click the “Add Activity” link under the property name to initiate the workflow. Choose the type of geometry you want to create (point, line, polygon, non-activity polygon). Proceed through the workflow entering the activity information as prompted. Click “submit” to complete the workflow and register the data to the database.

Activity type

Point Activity

Line Activity

Activity Area Polygon

Non-Activity Area Polygon

Next >> Cancel

If you choose “Other Type” you can specify an activity which is not on our normal list. Try to always use items from the lists when possible. Using “Other Type” may complicate reporting of these activities at a state, district or county level.

Create Polygon Activity

Type: Other Type

- OR -

Other Type: Snow Removal

Next >> Cancel

Most activities will have an associated cost per unit. For polygons, this is **per acre**. For points, it is the **total cost**. For lines, it is the cost **per mile**.

Create Polygon Activity

Cost Per Unit: 35*

<< Back Next >> Cancel

Add Activity

Data chosen

Type: Road
 Details: Access
 Activity: Construct
 Cost per Unit: 1500
 Length of Line (in Miles): 0.39

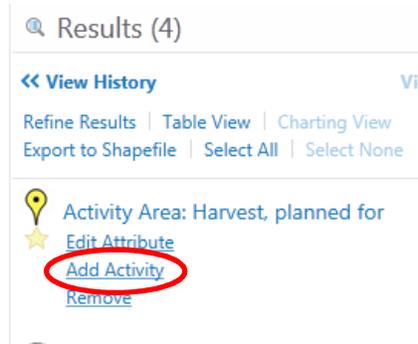
Total Cost: 585.00

Year: 2016*

<< Back Submit Cancel

- Note: The year field is the year the planned activity should take place
- Note: A total cost is also calculated for you

By using the “Identify” tool or “What’s Here” trick, you can also see a previously created activity in the Results Tab. Choosing “Add Activity” will allow you to copy the same geometry for multiple activities in the same location (for instance an area that will be sprayed, burned and planted).



Finish creating all activities for the property. Once done, your plan components are complete. You may now proceed to Plan Reports (Generating a Forest Management Plan section).

Generating a Forest Management Plan

A workflow has been included in MISST to help ensure the standards are met for both Forest Stewardship and American Tree Farm certified forest management plans as well as to help control the consistency and quality of reporting throughout the agency. The output is a Microsoft Word document that will require additional input and editing from the plan preparer. Any specific questions about the report content should be addressed with your ADF. Any questions or support requests regarding report formatting or technical issues can be addressed through the GIS staff members.

Right click on the property you want to generate a forest management plan for then choose “What’s Here” from the pop-up menu. Click on the “Generate Plan Report” link under the property name in the results pane to initiate the workflow.



You will be presented with a form that includes a series of yes/no questions and a list of “other considerations” to choose from if they apply to the property. You will have to scroll down to see the entire form.

 Plan Report

Water
Do significant water resources exist on the property?
 No Yes

Forest Health
Were significant forest health concerns found onsite?
 No Yes

Threatened and endangered species
Were threatened or endangered species found on this property?
 No Yes
Were any imperiled or critically imperiled species found on this property?
 No Yes

Special sites
Were any special, archaeological or historical sites found on this property?
 No Yes

Special sites
Were any special, archaeological or historical sites found on this property?
 No Yes

Special sites
Were any special, archaeological or historical sites found on this property?
 No Yes

Invasive Species
Were any invasive species found on this property?
 No Yes

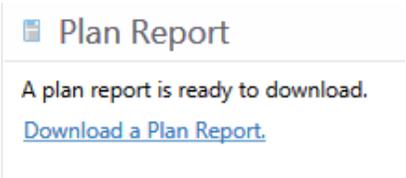
Forests of Recognized Importance (FORI)
Were any forests of recognized importance (FORI) found on this property?
Please contact your District Forester if you are unsure if FORI exist.
 No Yes

Other Considerations (If Applicable)
Include the considerations of the checked items to the report below.
 Prescribed fire
 Recreation
 Forest Aesthetics
 Biomass
 Carbon
 Biological Diversity
 Wetlands
 Rangelands, Agroforestry and Silvopasture

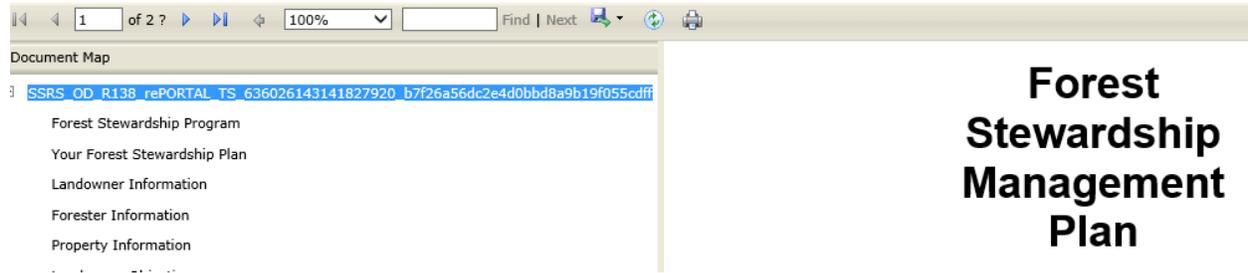
- Note that all of the “other considerations” are selected by default, so you must deselect those that do not apply.
- These are items that if they exist, should be addressed in the Stewardship Plan. If they do not exist, they do not need to be included in the plan.

Carefully answer the questions then click “Submit” at the bottom of the form to generate the report.

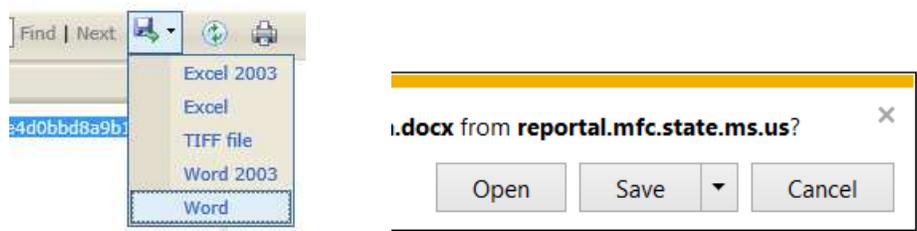
Depending on the complexity of the report, it could take several minutes to generate after clicking the submit button. Once complete, you will be prompted to download the report and will be provided a link.



Once the download is complete, a new browser window will open showing you a general (but not editable) outline of your plan. **Users are still in a non-editable, internet environment at this point.**



In order to save the written plan in a format you can use, it must be exported and saved to your computer. To do this, click the save icon and choose “Word” as shown below



You will then be asked to open or save. One option is to choose “open”, then enable editing
ails. if necessary. Then choose “file” – “save as” and name your word document (your plan) and save it where you want to on your computer.



What you are doing is saving the plan from a non-editable internet web page and saving it as an editable word document on the user's computer. A saved copy of the written plan now exists on the users computer and nowhere else. Once changes are made and the document is ready, the saved version can be sent to the district office for review and approval.

We recommend saving reports according to the following naming convention:

FY_ProgramArea_Landowner

Examples:	FY16_FRDP_Skidmore	(FRDP Plan)
	FY16_CRP_Jones	(CRP Plan)
	FY16_Prescription_Morgan	(no program area, not stewardship)
	FY16_Stewardship_Crump	(Stewardship only, not FRDP)

Due to the complexities of the formatting within Microsoft Word, it is easy to accidentally delete sections of the report if you are not careful. You are encouraged to have an "original" copy to use (a pre-edited back-up). If you choose this option, simply add "Original" to the end of your document.

Example:	FY16_FRDP_Crump_Original	
	FY16_FRDP_Crump_Edited	(once you have finished)

Maintaining both an original and edited version will help ensure you can always retrieve the original report should you make some mistake in the editing process. You can also simply print another at any time from MISST.

In the report that is generated, you will see red text in several locations throughout the report. **Anything in red must be edited by the plan writer and changed to black** to indicate that the required edits are complete. After editing all of the red text, the plan writer will have to "clean up" the report removing white space and unused elements. For example, if your property does not include point activities, you will need to delete the point activities section from the body of the report and the related map in the appendix.

- Note: Some text boxes require multiple “delete” or “cuts” to remove the blank areas, or resizing of the text boxes. Using “Ctrl + A” will highlight the entire document, allowing you to see blank spaces and table lines better. This will help in the editing process, but be careful what you delete! It is strongly encouraged to reduce the view to 80% in Word in order to be sure you haven’t selected additional text boxes.



- Find the blue cross at the top left side of any text box in order to right-click and cut the



Activity Area

entire text box.

- Note: The last thing to do when all edits are done is create a table of contents that includes the page numbers. Instructions are in the following section.

Creating a Table of Contents

Having a numbered Table of Contents requires some extra effort. Delete the “standard” ToC in the report as shown below.

Table of Contents

Forest Stewardship Program
Your Forest Stewardship Plan
Landowner Information
Forester Information

Table of Contents

when deleted becomes

Then immediately go to the References ribbon, click the “Table Of Contents” button, and select “Insert Table of Contents”. Next, click the “Options”... button, and deselect “Styles” and select “Table” entry fields. Next, click the “OK” button twice and view your results.

The image shows a sequence of steps in Microsoft Word to create a numbered Table of Contents. It starts with the 'References' ribbon, where the 'Table of Contents' button is clicked, leading to a dropdown menu. The 'Table of Contents' task pane is then displayed, and the 'Options...' button is highlighted with a red circle. The 'Table of Contents Options' dialog box is shown next, with 'Build table of contents from:' circled in red. In this dialog, the 'Styles' checkbox is unchecked, 'Outline levels' is checked, and 'Table entry fields' is checked. The 'Reset' button is also visible at the bottom of the dialog.

Other Tools and Tips

Zooming and Panning in Map View

To zoom in to a specific area:

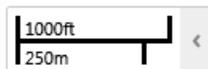
- Press and hold the shift key, then click and drag a box around the area of interest
- Move the mouse wheel up or down
- The “+” and “-” keys on a keyboard can also be used
- Use the query function and choose [Zoom to Feature](#)

To pan around the map area:

- Click, hold and drag the map to pan the map view in any direction
- While in geometry edit mode (creating a boundary line), the arrow keys will move the map in the direction you press

Minimum Mapping Standards

When mapping (digitizing) property and stand boundaries in MISST, you must consider scale and make sure to zoom in close enough to accurately place the vertices of the polygon you are creating. Use a scale of 1:7,000 (Map scale in bottom left reads 500 ft.) or larger when digitizing boundaries. You can manually enter the scale from the “Home” tab of the toolbar in the map viewer:



Viewing Stand / Activity / Property Attributes

If you want to see information about an item (such as acres, activity the year is planned, who owns a property or the property ID), use the “What’s Here” trick. Then simply click on the name of the stand / property / or activity in the “Results” tab to see details about that item. This will only work on map layers currently turned on in your TOC.



Property: Akers (6624940907) (280.6 acres)

[Zoom to Feature](#) | [Pan to Feature](#) | [Create a Report](#) | [Copy to Drawing](#) | [Add to Selected](#)
[Export Feature Attachments](#)

Field Name	Field Value	
Plan Type	New	
Stewardship Plan	No	
Prescription Plan	No	
Plan Length	10	
Plan Start	1/26/2016 6:00:00 AM	
Plan End	1/26/2026 6:00:00 AM	
Plan Name	Akers (6624940907)	
PrimaryObjective1	Aesthetics	

To select multiple objects:

- Click on the “Identify” button so it is highlighted



- Press and hold the “Shift” key while dragging a box around what you want to see in the results tab
- When done, de-select the Identify tool so you can drag and pan your view

Stand Editing Notes

- Note: Stands will be completely contained within the property boundaries.
- Note: Similar to properties, stand geometry can be edited using “Add More Area”. This means you may have multi-part polygons for stands (one stand with several polygons)
- Note: Once a stand is complete, you may edit the geometry using the “Clip Area” function. This is how you would create any holes or islands or trim edges of a stand. For example, you can cut out lakes or large right-of-ways to exclude them from the stand acreage.



- Note: If you are editing stand attributes and hit the “Back” button, it can sometimes cause some stand data to be erased. You will know this has happened if when you print a report, the map shows the stand as non-forest and the stand data will also be blank. Please double check to see that all stand data is correct. If it is not, re-enter the data by selecting “Edit Attribute” for that stand.
- **Non-forested areas do not necessarily need to be classified as stands in MISST.** Activities occurring in a non-forested area that directly relate to the landowners objectives (such as food plot or afforestation activities), are permitted, but the location does not need to also be a stand.

Using the Query Tool to Find a Property

To find a property in MISST you have several options. If you do not know the location of the property, or if you want to see all properties of a certain landowner in your “Results” tab, you can use the query tools. These are located in the “Find” tab of the toolbar. The “Query” and “Advanced Query” tools have many options for you to explore.

The screenshot displays the MISST software interface. At the top, the 'Refine Data' toolbar contains icons for 'Filter', 'Query', and 'Advanced Query'. The 'Advanced Query Builder' window is the primary focus, showing a 'Query Layer' dropdown set to 'Property'. Below this, it prompts the user to 'Find records in Property layer for which:'. The 'Field Name' dropdown is set to 'Client Name', with an 'Add' button to its right. The 'Operators' section provides a grid of symbols: '=', '<>', '<', '<=', '>', '>=', and '()'. Below these are buttons for 'Is', 'Like', 'And', 'Or', 'Not', '-', and '%'. The 'Field Value' input field is currently empty, with an 'Add' button to its right. A text area below displays the generated SQL query: 'SELECT * FROM [Property] WHERE ClientName =akers'. At the bottom of the window, the 'Spatial Filter' is set to 'None', and 'Clear' and 'Run' buttons are available. To the left, a 'Simple Query Builder' window is also visible, showing a query for 'Sections' with three conditions: 'SECTION_ = 16', 'TOWNSHIP = 15 N', and 'RANGE = 13 E'. Each condition has a trash icon to its right, and an 'Add a query condition' button is at the bottom.

- Note: There are many other possible queries that may be useful at certain times for specific reasons (not just a search for a property). These will be left for you to discover as needed.
- Note: There are many layers to query and each has unique fields. Always be sure you are searching the correct layer for the correct field. There are some duplicate fields, if one does not work...try another!

Mapping Considerations in MISST

Stand size is important. Of utmost importance is manageable stand size. There are no hard and fast rules in silviculture as to how large or small a stand can be. In very high value forests where intense forest management is possible, it might warrant the delineation of relatively small stands (less than 20 acres).

However, keep in mind that we implement forest management at the stand level. Therefore, a stand must be sufficiently large to justify treating it as an individual forest management unit. From a practical standpoint, this means it must be large enough to attract contractors for intermediate treatments and buyers for scheduled harvests. On public lands, this generally means that stands must be at least 20 acres.

A second consideration is multipart polygons (disconnected stands) that collectively comprise the total stand acreage. When creating multipart stands, always keep in mind their proximity to one another, physical barriers between them and have realistic expectations for what can be considered a single management unit. Always ask yourself if it is realistic to assume that the disconnected parts can be managed as a single unit. In other words, if you have a 10 acre area in the northeast corner of a section that is similar in composition to a 10 acre area in the southwest corner of a section, can you realistically expect a timber buyer to harvest them together if they are combined into one stand? Always discuss your stand delineation and forest management goals with your ADF if you have questions.

SMZ's are an exception. They should always be mapped as a unique stand(s) with their interaction with water resources being the primary consideration, despite their size. They must be designated as an SMZ in the "add stand" workflow and specifically addressed in the forest management plan. SMZ's may be treated as one stand on a property, assuming their compositions are similar (TPA, Species, Age, Size).

As a final note, also remember that stands are independent from activities. If you are mapping out individual stands that are small and un-manageable units in size, you can have different activities planned in order to consolidate or protect certain stands. Simply address the activities within the plan itself and describe how the smaller stands will be incorporated into adjoining stands over time and through proper activity planning.

For further details about stand and activity management, particularly limits on planned sale sizes, please refer to the current guidelines about public lands management.

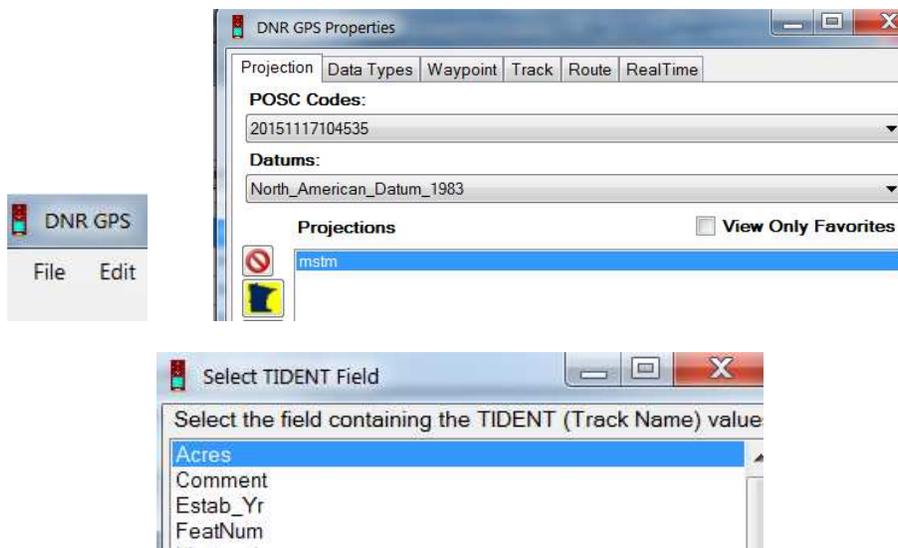
Importing and Exporting Shapefiles

To import a shapefile into MISST:

Shapefiles cannot currently be moved directly from the handheld into MISST. A transformation must occur using DNR Garmin. To do this successfully, you must bring in the shapefile from the handheld and save it to a location on your computer (such as an “Export” or “Import” folder).

Open DNR Garmin (or DNR GPS)... Make sure your projection is set to MSTM (under the file menu). This always should remain the same once it has been set...

Choose “File”...”Load From”...”File”... make sure the file format is set to “ESRI Shapefile (2D) (*.shp)”, then select the shapefile you want to transform. Once you open the file, you may have to select a field to use to identify the feature...you can choose FeatNum.



Your file will load every point in the shapefile. From the file menu select “save to”, then choose “ArcMap”, then choose “file”. Name the file appropriately and click OK. Choose Polygon and click OK.

Transformation is now complete. Go back to MISST to view the file.

In MISST, from the “Data Sources” tab, click the “add shapefile” button and navigate the shapefile you want to add. Note that you will see three files with the same name, but different extensions. **You must select all three files (*.dbf, *.prj and *.shp) for the shapefile to load properly**, then click OK.



To export a shapefile out of MISST for handheld use:

Using the “What’s Here” trick, select a polygon (property, stand, activity). Click on the name of the polygon in the “Results” window to open the attribute tab. From this tab you should click “Add to Selected”. You can add multiple polygons to selected, but know that when they are treated as one shapefile in the end.

[Add to Selected](#)

Next, under the “I Want To...” menu, click “Export area to shapefile”

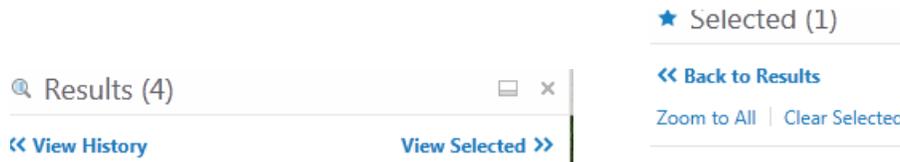


Following the workflow, name the file (you get a shapefile and a zipped folder it is contained in). Leave the projection alone to work in the MFC handhelds (there are currently only two options for a save projection). Click “Go” to save this file. You will choose a location to save the folder in. It is recommended to save files to a common location such as an “Export” folder in “My Documents”.

A screenshot of a "File Name" dialog box. It contains three input fields: "Shapefile Name" with the text "Test Shapefile", "Zipfile Name" with the text "Test Shapefile", and "Projection" with a dropdown menu showing "MS Transverse Mercator (default)". A "Go" button is located at the bottom right of the dialog.

Your shapefile is now saved and ready to be unzipped and used in SOLO Forest.

When you are finished, to clear this markup off the map, click the “View Selected” button in the “Results” Window. Then click “Clear Selected”.



Creating Waypoints

The Plot Allocator no longer works with shapefiles from MISST. Waypoint files will need to be created in SOLO. Partial Instructions are as follows...

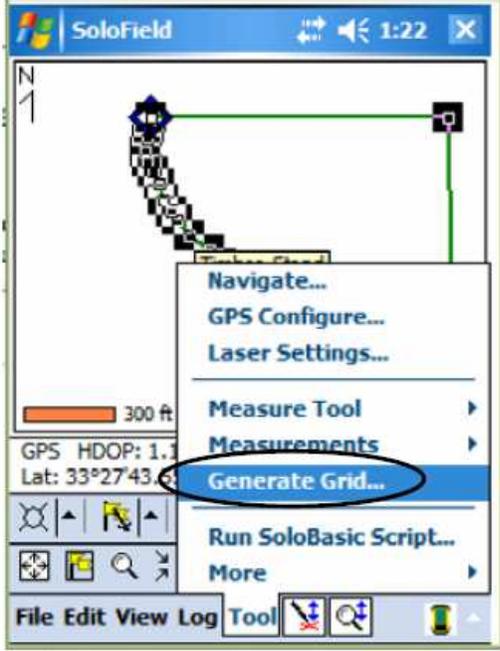
G. Generating a Grid

Solo Forest can generate a grid inside a selected area feature or shapefile polygon and store the grid points as a waypoint file.

Here is how to do it:

Step #1 – With your stylus set to **Stylus selects Logged Data**, click on the polygon

Step #2 - select **Tool > Generate Grid**.

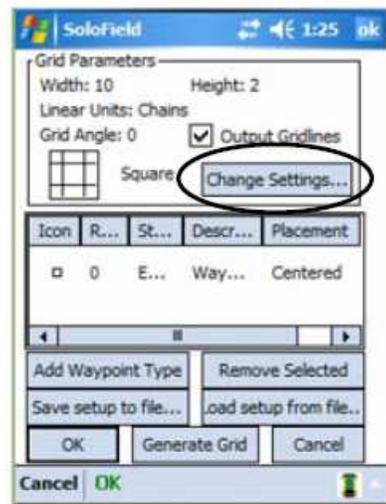
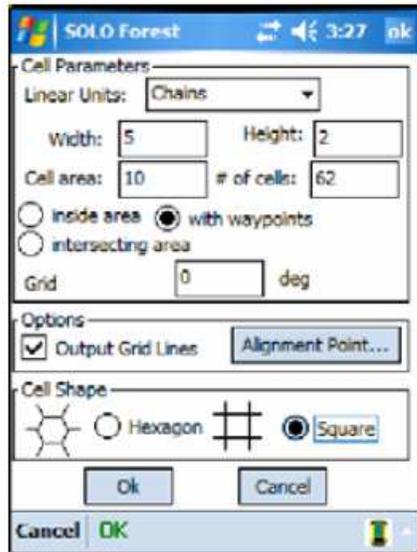


The screenshot shows the SoloField application window. The main map area displays a green path and a black square. A context menu is open over the map, listing options: 'Navigate...', 'GPS Configure...', 'Laser Settings...', 'Measure Tool', 'Measurements', 'Generate Grid...' (highlighted with a blue oval), 'Run SoloBasic Script...', and 'More'. The bottom status bar shows 'File Edit View Log Tool' and a battery icon.

Use Logged Data if you have GPS'd the stand...use whole Feature if you imported a shapefile.

Generating a Grid

Step #3 – Select Change Settings



Step #4 – Set your Grid Parameters

You have several options for your grid. For this example we'll use a square cell shape with a 5 x 2 chain spacing on a 0 degree orientation.

You can set your grid spacing by chains, or you can set the # of cells = the # plots you want...

You can vary the direction the lines run with the degrees setting...

Also, check "With Waypoints" and click "OK" ... or if you need to set your start point...

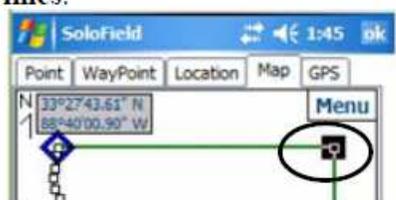
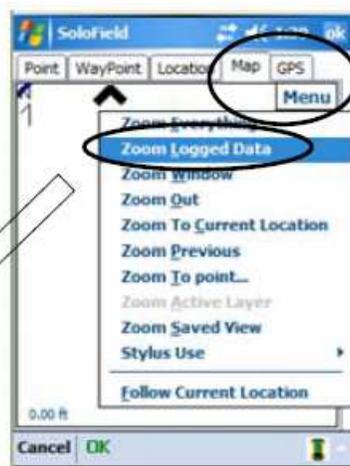
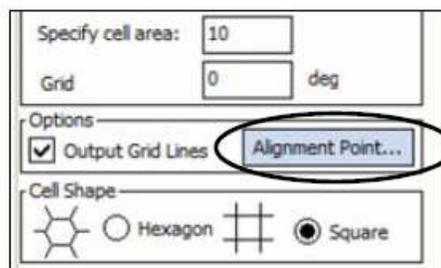
Generating a Grid

Step #4 – Set your Alignment Point (Optional)

Most foresters are used to having their grid start at a known corner and then go $\frac{1}{2}$ the distance up and over to place the first grid point. All of the rest are then spaced on the 2 x 5 pattern after that. To do this in Solo Forest, press **AlignmentPoint** and then go to the **Map Tab** > then **Menu** > and lastly, Zoom Logged Data.

With your Stylus set to Stylus Selects Logged Data, you can now select the **Alignment point** or locking node.

Lastly, select **OK 2 Times**.

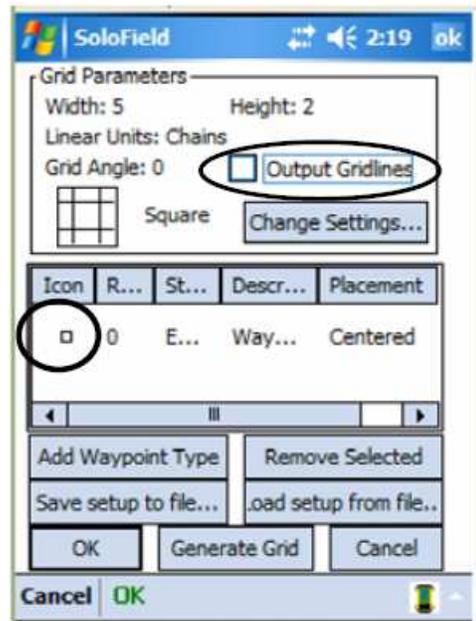


Generating a Grid

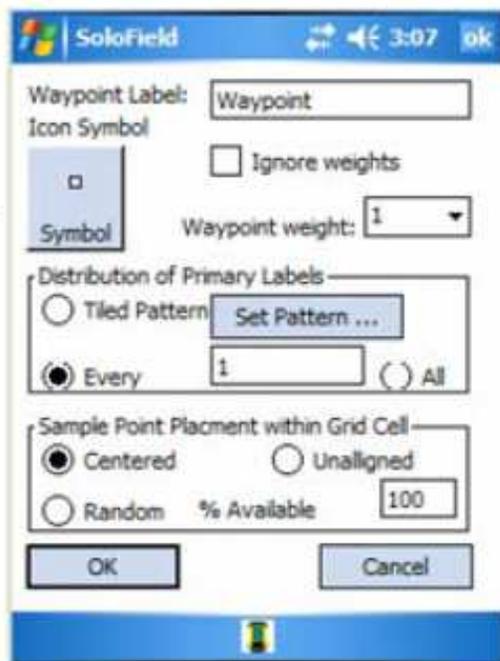
Step#5 – Once you are back in the main Grid Parameters screen, Uncheck **Output Gridlines**.

Step #6 – Change the Waypoint Icon (Optional)

If you do not like the look of the default waypoint icon , you can easily change it by **clicking on the icon**.



If you click the icon, you will also find you have an option for random plot allocation.



Click "OK"

Generating a Grid

Step #8 – Generate Grid

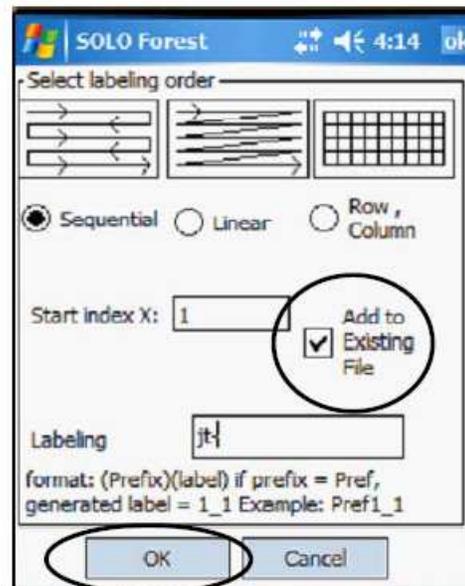
When you get back to the Grid Parameters screen, select **Generate Grid**.

Step #9 – Select Labeling Order, Starting Index, and any Labeling Prefix

You can use the defaults or specify a different grid order, starting number, or prefix like “st1-”. In this case the first plot will be labeled “jt-1”. The second will be “jt-2”, etc.

Notice the **Add to Existing File** box. If you select that box then you can add more waypoints into an existing waypoint file. This is extremely helpful if you want to cruise 2 different stands with different intensities. Be sure and have the starting index of the second grid be one more than the last grid point on the first stand.

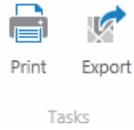
Select **OK**.



Click “Generate Grid”...click “OK” ...name and save the grid as a waypoint file.

Printing an Individual Stand / Activity / Property Map

What you see on the map screen is what will print using this option. On the toolbar, under the “Home” tab is a “Print” option in the task container.



Selecting print will bring up a list of options for printing what you see on screen. You can select any of the template options, add a title and any notes. There are several map templates available for your use (the Select Layout Option).

 **Print Map** ›

Select Layout: MFC 8.5x11 landscape ▼

Output Format: Pdf ▼

Resolution: 96 DPI ▼

Grid: (None) ▼

Map Scale: 1: 11,852 (Current Scale) ▼

Title:

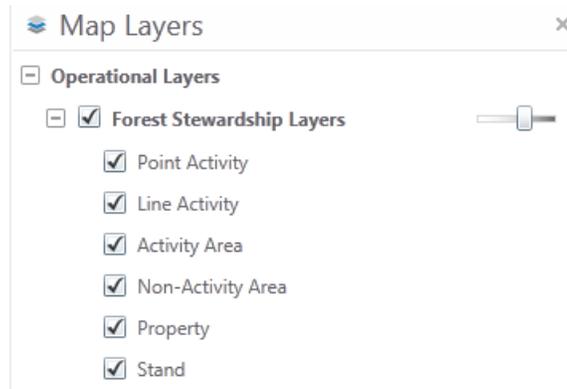
Notes:

Filtering the View for Cleaner Maps

In order to “clean up” a map, you may need to hide surrounding properties, stands or lines. You may also need to turn off activities or stands to see what you want.

- Note: This clean-up is not necessary for generating a plan, only for things such as sale maps, contractor maps or other maps not produced in the Plan Generation Workflow.

Option 1: You can turn certain items off in the layers tab.



Option 2: If turning off certain layers does not get you what you need, you can filter the view to show only the property you want to see on the map (hides other properties / stands / activities).

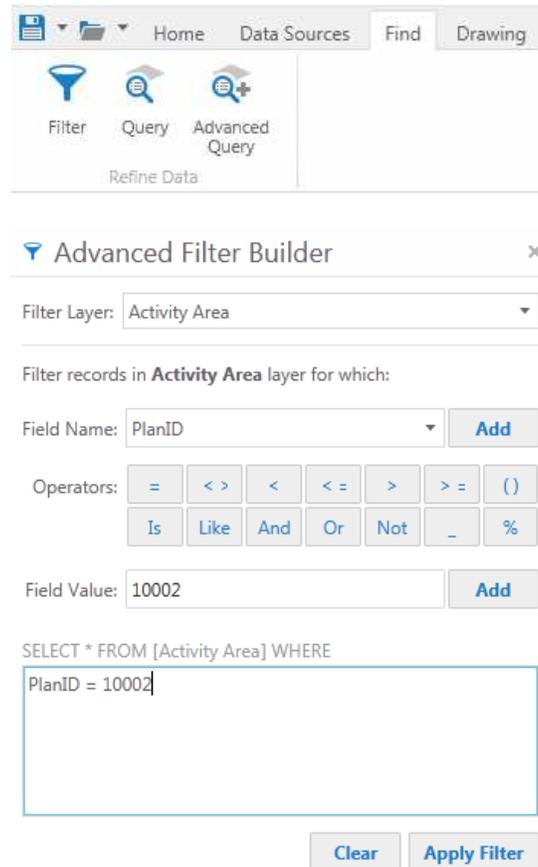
To see only a specific property and associated data, you must know the Plan ID first. Everything is tied into the Plan ID. Use the “What’s Here” trick to open the property attributes of the Property you want to keep on your map. Scroll to the bottom to see the Plan ID #. You can leave this screen up for reference through the next few steps.

Property: Akers (6624940907) (280.6 acres)

[Zoom to Feature](#) | [Pan to Feature](#) | [Create a Report](#) | [Copy to Drawing](#)
[Export Feature Attachments](#)

Field Name	Field Value
Township	16 N
Range	9 E
CreatedBy	josh
ModifiedBy	josh
CreatedDate	1/26/2016 9:51:40 PM
ModifiedDate	1/26/2016 9:51:40 PM
PlanID	10002

Once you know the Plan ID, choose the “Filter” tool located in the “Find” tab



You will begin to filter out things in view that you do not want to see. This is done by choosing a “Filter Layer”, a “Field Name” and a “Field Value”. The most common way to accomplish your goal will be to filter out the layers of Activity Area, Line Activity, Non-Activity Area, Point Activity, Property and Stand. All filter runs will have the same Field Name (Plan ID) and the same Field Value (your actual plan ID #).

In the example above, the Activity Area was filtered first. The user would choose “Field Name” *Plan ID* from the drop-down list and click “Add”...click the “=”...click in the “Field Value” box and enter the actual Plan ID # and click “Add”... then click “Apply Filter”.

These steps will hide all activity areas except the one you want to see.

You must then change the “Filter Layer” to any others you need to remove (points, lines, properties, stands and non-activity areas). Depending on what you are trying to hide from view, you may not need to run all of these filters. Each case is different.

Understand this, the filter tool builds on every run. In other words, once I filter for Activity Area, I can run an additional filter for something else like Stand. To clear the filters and view everything again, you have to clear the filter on every layer you filtered, which can be tedious when you’ve filtered through

multiple layers. You have to reselect property, then clear that filter. Reselect stand, clear filter, etc. until they are all removed. Alternatively, you can close the app and open it again with no filters.

Option 3: Only view the one activity you want to see. Use the “What’s Here” trick to see the activity’s “Object ID” number in the attributes tab. Using that, simply filter the “Activity Area” by the object ID and everything else goes away! (may have to combine cutting off stands and property layers as well)

The screenshot shows the 'Advanced Filter Builder' window. The 'Filter Layer' is set to 'Activity Area'. The filter records in the 'Activity Area' layer are defined by the field 'OBJECTID' with the value '29141'. The SQL query generated is: `SELECT * FROM [Activity Area] WHERE OBJECTID = 29141`.

Activity Area: Wildlife, pla

Zoom to Feature | Pan to Feature | Export Feature Attachments

Field Name	Field Value
OBJECTID	29141

Exporting Imagery for Use on a Handheld

If you need imagery or a picture of shapefiles...basically a picture of what you see in MISST for use in your handheld, there is a quick tool for that. Get your map screen how you would like to see it...photo, stands, properties...whatever you want to see. Next, choose “I want to...” and choose “Export Map Image”. Follow the workflow. This file can be saved, moved over to a handheld (put in the export folder) and pulled up as a jpg file just like any other layer in SOLO. Your scale you save at is the scale you will see...no zooming in and getting details!

The screenshot shows the 'I want to...' menu with the following options:

- Add a new property
- Export area to shapefile
- Export Map Image
- Change visible map layers
- View the home panel
- Return to initial map view
- Find data on the map
- Clear Temporary Markup

Editing an Existing Stand, Property or Activity

During the data migration into MISST, many things changed. New attributes are now collected that were not collected before. In addition, mapping restrictions in SIMS limited the use of multi-part polygons. These issues will need to be corrected on old properties before a stewardship plan will generate correctly. Otherwise, you will have many blank fields including activity acreage and cost calculations.

- Note: Much of this section can be used for editing any property, not just those migrated over from the old system.

To edit an existing feature, do the “What’s Here” trick and select the property, stand or activity to edit.

[<< View History](#) [View Selected >>](#)

[Refine Results](#) | [Table View](#) | [Charting View](#)
[Export to Shapefile](#) | [Select All](#) | [Select None](#)

 **Property: Akers (6624940907) (280.6 acres)**
 [Edit Attribute](#)
[Edit Geometry](#)
[Add Stand](#)
[Add Activity](#)
[Remove Property](#)
[Generate Plan Report](#)

 **County: Attala**


 **Activity Area: Harvest, planned for**
 [Edit Attribute](#)
[Add Activity](#)
[Remove](#)

 **Stand: 1 (34.9 acres)**
 **Plan ID: 10002**
[Edit Attribute](#)
[Edit Geometry](#)
[Remove Stand](#)
[Create Activity](#)

You can see your available editing options in the “Results” tab. Options are limited and experience using each option will be the best teacher. General editing rules are as follows:

A property can have its geometry changed or its attributes changed. Point, Line and Polygon activity features can be added here. When editing existing property in MISST, be sure to change the type from “new” to “revised”

- When editing an existing property in MISST, be sure the “Date Fully Certified” does not read 1/1/0001...it will fail to work. Simply change the date to 2016 or later

Stands can have their geometry or attributes changed. You can also add an activity using the stand’s boundaries as a guide. When editing an existing property in MISST, be sure to update all stand data including stand numbers and stand types. Pay particular attention to SMZ status and operability as the ones imported from our old system seem to have issues at times.

Activity geometry cannot be edited, but can have attributes edited. Activities must be deleted and re-created if the boundary needs to change. When editing property in MISST be sure to delete previously existing activities and create new ones. Old activities do not have the correct data and were brought over for reference purposes only.

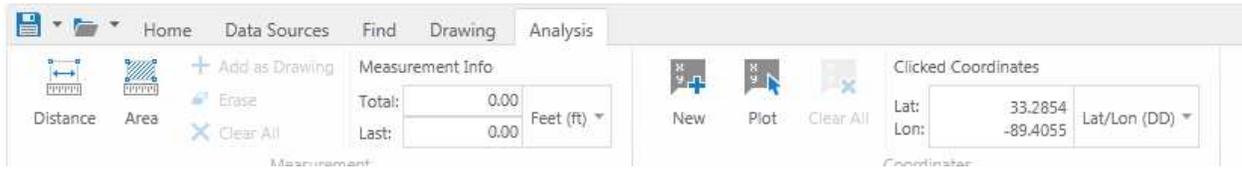
Quick Maps for Everyday Use

You can produce simple maps or gather basic information for a landowner or contractor by using the basic tools of the GeoCortex application without going through the plan workflow. These tools and items are temporary in nature and should be erased once the information has been gathered.

Under the “Drawing” Tab there are several tools for making a temporary map. You can utilize these tools and erase them when you are done. These drawings are not saved into the MISST database, but may remain visible until they are erased.



In addition, the “Analysis” tab has additional temporary tools to gather information such as acres or coordinates.



Using these tools, one can make a quick map and print it using the MFC templates. Data is not permanently stored.

Miscellaneous Technical Notes

MISST leverages ArcServer technology with “editor tracking” so all of the data you create and/or edit is tagged with your username. You cannot edit data created by other users.

Please contact the system administrator if you need to edit a property or feature that was created using another login or if you are being denied access to your data for any reason.

Note that properties, stands and activities have a limited display range and will not show on the map when zoomed out beyond 1:250,000. Many labelling schemes are also controlled by map scale. Similarly, the USA Topo Map layer has a maximum scale of 1:18,100 and will not display when zoomed in closer.

Sometimes the view does not refresh from past actions (something is selected that shouldn't be). Try zooming in or out to fix this. Also, using the “Clear Temporary Markup” button in the “I want to...” menu can work. If this fails, restart the MISST application.

Version 2.1 Updates as of June 2016

- When connecting to MISST, some links may add an “s” to the http portion of the address. This will result in an error on the screen. Removing the “s” will allow you to connect.

<https://phobos.mfc.state.ms.us>

403 - Forbidden: Access is denied.

You do not have permission to view this directory or page using the credentials that you supplied.

- Update your public lands as soon as possible. Reports will only be valid for properties that have been completely updated. Printing a report on bad or missing data produces bad reports.
- FRDP areas – when the need arises to physically show where cost-share funds will be used (for example a 100 acre spray/burn/plant is going to occur on the property, but only 60 acres will qualify for FRDP), use a “non-activity area polygon”. You will then have a map showing the area in your plan and can always add a text box in the final document to clarify. Remember, the final document is in word format...you can edit almost anything!

Add Activity

Activity type

Point Activity

Line Activity

Activity Area Polygon

Non-Activity Area Polygon

Type

Type: --- Select any ---

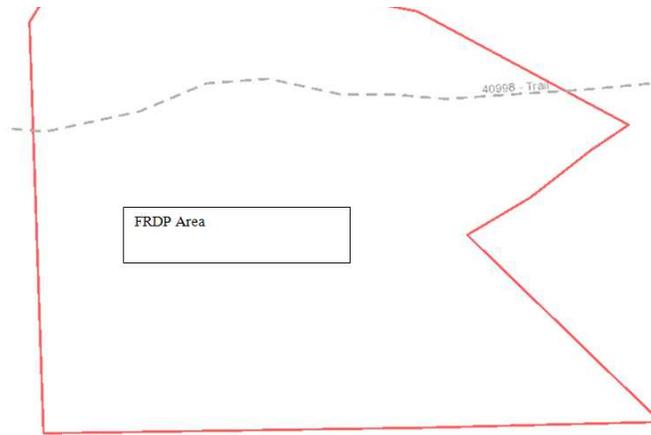
- OR -

Other Type: FRDP Area

Fiscal Year: 2017

Next >> Cancel

<< Back Submit Cancel



- When updating the plans in Word, do not forget about the “undo” button. This will save you from re-publishing a plan from MISST and starting over.
- THE STR lines many users want to see are located under the basemap – cadastral layer and must be turned on when needed

Map Layers

Operational Layers

Forest Stewardship Layers

Basemap Layers

Cadastral

Townships

Sections

- Updates to existing / current Stewardship plans do not require a whole new plan be produced. Plans that are in the system as stewardship plans already may only need an “Addendum” or update. What this means is if you are doing some FRDP cost-share on a property that is already in the system as a stewardship, you have 2 options
 - **Option 1:** Update and change the property to a revised plan covering 10 years. This would be done if significant, property wide changes have occurred which significantly alter the original plan. This is usually not the case unless the property has been severely storm damaged.
 - **Option 2:** Add the new or updated activities to the property in MISST and print a useable map to turn in to the landowner and DO straight from MISST. Then type up a word document (the Addendum) describing the planned activities that were not in the original plan. This Addendum, plus the map, along with the Excel FRDP cost share sheet should be all you need to complete the FRDP request for this year. An entire new plan is not required.