

DATIM

Design and Analysis Toolkit for Inventory and
Monitoring

User Guide

Version 14.1



DATIM User Guide, Version 14.1

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USDA Forest Service
Washington, DC

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¹ <https://www.fs.fed.us/emc/rig/DATIM/index.shtml>

² <https://www.fs.fed.us/emc/rig/DATIM/index.shtml>

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³ <https://www.usda.gov/oascr/complaint-resolution>

Design and Analysis Toolkit for Inventory and Monitoring

DATIM User Guide (version 14.1)

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Preface

The Design and Analysis Toolkit for Inventory and Monitoring (DATIM) is a suite of software tools developed to provide national consistency for natural resource inventory and monitoring designs and data analyses.

DATIM is comprised of four integrated tools:

- ATIM, the Analysis Tool for Inventory and Monitoring, is used to create statistically defensible analyses and reports. It is integrated with the Design Tool for Inventory and Monitoring (DTIM) to allow users to retrieve ATIM estimates to calculate sampling attributes. ATIM is also integrated with the Spatial Intersection Tool (SIT), to focus an analysis on a geographic area of interest and summarize the results using map-based attributes.
- DTIM, the Design Tool for Inventory and Monitoring, is used to identify information needs and design more efficient and effective monitoring plans.
- SIT, the Spatial Intersection Tool, is used to perform spatial intersections using plot-based data and user-selected geospatial layers. The results of those intersections are stored in DATIM for analysis in ATIM.
- DCS, the Data Compilation System, is used by regional administrators to extract data from external sources, transform the data according to region-specific requirements, and then load the data into the DATIM DataMart. Data sources include Field Sampled Vegetation (FSVeg) and the Forest Inventory and Analysis Database (FIADB).

DATIM is available to the public and to guest users. Specialized or advanced roles and permissions are available to registered users with the appropriate authentications. For more information about user roles and permissions, see the section on User Roles.

Conventions Used

Several special conventions are used in this guide to assist you.

Text conventions include various typefaces used to identify terms and other special objects. These special typefaces include the following:

1. **Bold**: Indicates a field name or label prompting user input, or a button or link that you click (Example: In the **Analysis Name** field, type in a unique name for your new analysis).
2. Outside Border (Blue box): Used in document figures to highlight elements discussed in the text.
3. [Hyperlink](#): Provides a hyperlink to another resource. (Example: For more information about DATIM and the Resource Information Group, go to the [RIG-DATIM \(opens in new window\)](#)⁴ internet site).

Responsible Organizations

Programming support for DATIM is provided by database and software developers employed by the USDA Forest Service in partnership with the University of Nevada, Las Vegas (UNLV) and Southern Utah University (SUU). The DATIM project is sponsored by the Ecosystem Management Coordination (EMC) Director and Research and Development's (R&D) National Inventory and Monitoring Application Center (NIMAC) which is part of the Forest Inventory & Analysis (FIA) Program.

The Organization responsible for DATIM is:

USDA Forest Service
Ecosystem Management Coordination
Sidney R. Yates Federal Building

⁴ <http://www.fs.fed.us/emc/rig/DATIM/index.shtml>

201 14th Street, SW
Washington, DC 20024

Assistance

If users have any further questions about how to use DATIM, that are not addressed in this user guide, contact the development team by sending an email to sm.fs.datim@usda.gov or by selecting Contact Us from the left menu in DATIM. For questions about the output of DATIM, contact the FIA-NFS liaisons listed on the [RIG-DATIM \(opens in new window\)](#)⁵ page.

Users are welcome to report bugs and issues with functionality, usability, or workflows as well as suggestions for improvements by sending an email to sm.fs.datim@usda.gov or by selecting Contact Us from the left menu in DATIM.

For more information, including frequently asked questions, user roles, training, and more, visit the [RIG-DATIM \(opens in new window\)](#)⁶ web site. For questions about roles, use of actual plot locations, or developing plans in DTIM, contact the NFS liaisons listed on the [RIG-DATIM \(opens in new window\)](#)⁷ page. For questions about resource data that comes from FIADB, contact the FIA program directly.

Technical Support

Internet Explorer and Microsoft Edge, the default browser in the Windows 10 operating system, is not recommended for use with DATIM.

⁵ <http://www.fs.fed.us/emc/rig/DATIM/index.shtml>

⁶ <http://www.fs.fed.us/emc/rig/DATIM/index.shtml>

⁷ <http://www.fs.fed.us/emc/rig/DATIM/index.shtml>

If you have questions or need help with e-Authentication, contact the [Customer Help Desk \(CHD\) \(opens in new window\)](#)⁸ internet site or call 1-866-945-1354 or 1-800-877-8339 (TTY). If you are behind the Forest Service firewall, you can also initiate a help ticket via the [Customer Help Desk website \(opens in new window\)](#)⁹.

⁸ <https://www.eauth.usda.gov/eauth/b/usda/contactus>

⁹ <http://fsweb.chd.fs.fed.us>

Chapter 1: Welcome to DATIM

A Quick Tour of DATIM

When you launch DATIM, the user interface is organized into six main parts as shown in [Figure 1-1](#) and explained in more detail below:

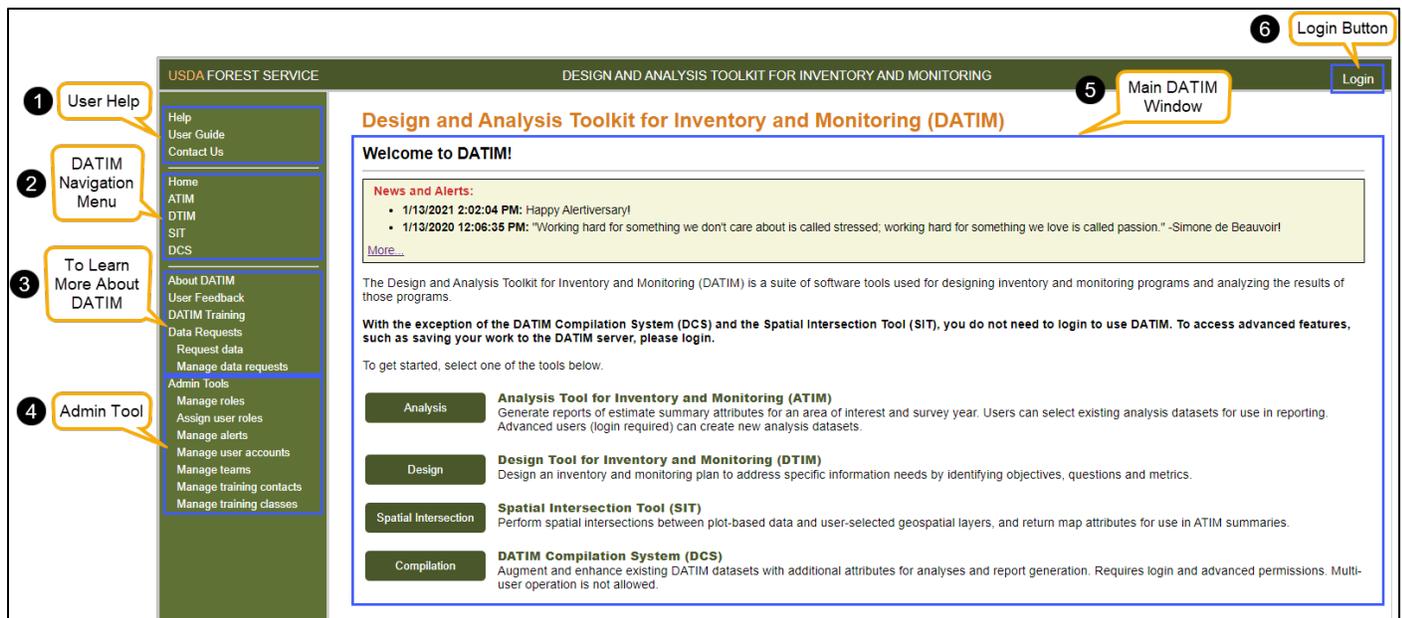


Figure 1-1. The DATIM user interface

The **User Help** ([Figure 1-1, #1](#)) area provides a link to the [RIG DATIM \(opens in new window\)](#)¹⁰ page, via the **Help** link, a link to the DATIM User Guide via the

¹⁰ <https://www.fs.fed.us/emc/rig/DATIM/index.shtml>

User Guide link, and a place to contact the DATIM developers via the **Contact Us** link, which will open the email client.

The **DATIM Navigation Menu** (Figure 1-1, #2) provides a link to each of the major areas of DATIM – Home, ATIM, DTIM, SIT, and DCS. This is your way of navigating through the application.

The **Admin Tools** (Figure 1-1, #4) area provides links to the tools specific to users with Administrator privileges. This submenu will not appear unless you are logged in as an administrator.

The **Main DATIM Window** (Figure 1-1, #5) is where you will interface with the various subsystems as you navigate around DATIM. When you open the DATIM application, the Welcome to DATIM page is shown in the main DATIM view.

The Login (Figure 1-1, #6) link opens a login view where you will be directed to the USDA eAuthentication (eAuth) login portal. You are prompted to enter your USDA eAuth username and password. From this view, you can also sign up for a Level 1 eAuth account if you are a quest user and would like to become a Registered User. Once you are logged in, you will be able to use the DATIM application according to the permissions and authorizations granted.

Welcome to DATIM

When you open the DATIM application in your web browser, you arrive at the **Welcome to DATIM (Home)** page. This page provides a brief description of each of the tools in DATIM, along with buttons to navigate to them. Select the **Analysis, Design, Spatial Intersection, or Compilation** button to open the desired tool (Figure 1-2).

You can return to this page at any time by selecting the **Home** link in the main navigation menu.

Each tool in DATIM uses wizards to guide you through the workflow. Most pages also provide expandable **Help** sections that describe the content of the page in more detail.

Design and Analysis Toolkit for Inventory and Monitoring

Welcome to DATIM!

News and Alerts:

- No user alerts at this time.

The Design and Analysis Toolkit for Inventory and Monitoring (DATIM) is a suite of software tools used for designing inventory and monitoring programs and analyzing the results of those programs.

With the exception of the DATIM Compilation System (DCS) and the Spatial Intersection Tool (SIT), you do not need to login to use DATIM. To access advanced features, such as saving your work to the DATIM server, please login.

To get started, select one of the tools below.

Analysis	<p>Analysis Tool for Inventory and Monitoring (ATIM)</p> <p>Generate reports of estimate summary attributes for an area of interest and survey year. Users can select existing analysis datasets for use in reporting. Advanced users (login required) can create new analysis datasets.</p>
Design	<p>Design Tool for Inventory and Monitoring (DTIM)</p> <p>Design an inventory and monitoring plan to address specific information needs by identifying objectives, questions and metrics.</p>
Spatial Intersection	<p>Spatial Intersection Tool (SIT)</p> <p>Perform spatial intersections between plot-based data and user-selected geospatial layers, and return map attributes for use in ATIM summaries.</p>
Compilation	<p>DATIM Compilation System (DCS)</p> <p>Augment and enhance existing DATIM datasets with additional attributes for analyses and report generation. Requires login and advanced permissions. Multi-user operation is not allowed.</p>

Figure 1-2. The Welcome to DATIM home page.

User Roles

Users have different levels of access to DATIM based on their assigned user role. To learn more about user roles in DATIM, please visit the [RIG-DATIM \(opens in new window\)](https://www.fs.fed.us/emc/rig/DATIM/index.shtml)¹¹ webpage and expand the User Roles content. The

¹¹ <https://www.fs.fed.us/emc/rig/DATIM/index.shtml>

default role for logged-in users is Registered User. To request another user role, please email sm.fs.datim@usda.gov.

This user guide includes all functionality available to the highest user roles of an Administrator. Some of these features are not available to users who are not logged in or are not assigned specialized user roles.

Login

Logging in to DATIM is optional. You can work in DATIM as a guest user and access the basic functionality. To access additional functionality like saving your work and sharing custom objects with others, you can login with your eAuth accounts. To access more advanced, specialized functionality, you must be logged in and have the appropriate user role assigned.

Login to DATIM:

1. Select **Login** in the upper right-hand corner of the DATIM screen (Figure 1-3).

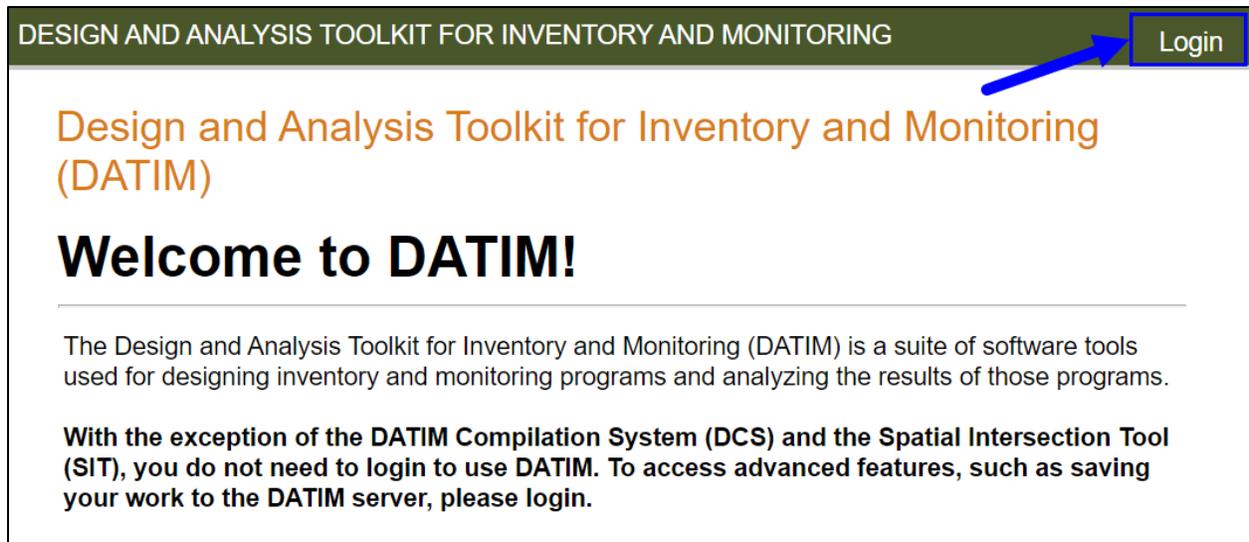


Figure 1-3. Logging into DATIM.

2. When you **login for the first time a login modal** window will open. Select the **eAuth Login** button (Figure 1-4, #1). You will be redirected to the USDA's eAuthentication Login page. Enter your eAuth credentials or use your

LincPass to login. If you do not have eAuth credentials select the **Click here** link (Figure 1-4, #2) to be redirected to the USDA's eAuthentication Level 1 Access Account Registration page. You must complete this form to obtain a Level 1 Access Account. It takes up to 5 minutes to get an Access Account. Once you have a Level 1 Access Account you can then return to DATIM and login with your new eAuth credentials.

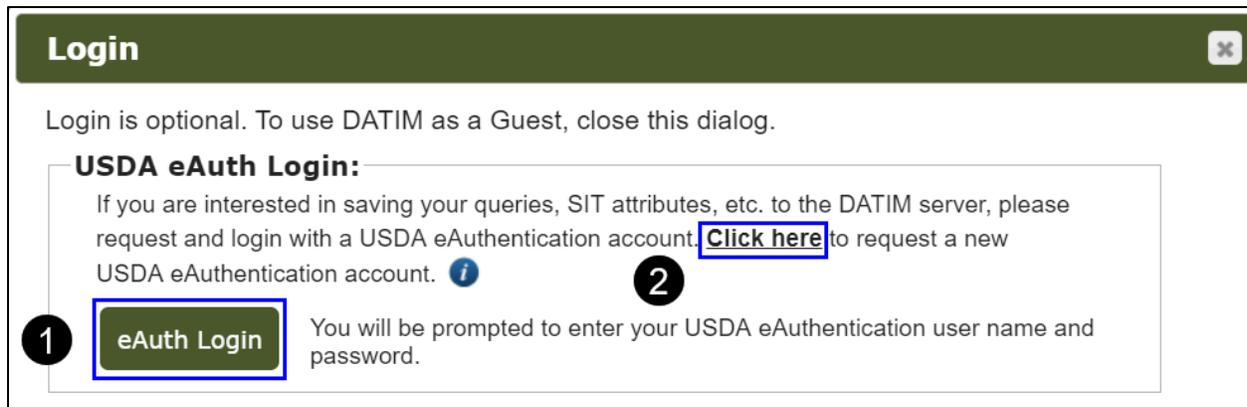


Figure 1-4. Logging in with an eAuth account through DATIM.

For first time users, the DATIM **User Profile modal** window opens. You must complete this form to register as a DATIM user. In the Friendly name text box, enter a name you prefer to display. In the Email text box, enter a valid email. Use the Forest Service Affiliate checkbox to state if you are a Forest Service Affiliate or are not affiliated with the Forest Service. Whether you marked the Forest Service Affiliate checkbox or not, use the Affiliation dropdown to state your affiliation. If you choose Other, you must use the Please specify text box to describe your affiliation. If you marked the Forest Service Affiliate checkbox, you will also need to select a specific affiliation from the Specific Affiliation dropdown. Finally, you must in your New Password and Confirm your password. Please note that your password must have at least 8 characters, a number, a lowercase letter, an uppercase letter, and a special character. You will also be able to view your User role(s) in this modal window (Figure 1-5).

User Profile [X]

Friendly name:

Email:

Forest Service Affiliate:

Affiliation:

Specific Affiliation:

Please specify:

User role(s): Administrator,Registered User,Forest Administrator,SIT Specialist,Spatial Data Service,Training Administrator,ETL Administrator

New Password:

Confirm New Password:

Figure 1-5. Updating 'User Profile' information in DATIM

You can edit your User Profile any time you are logged in by hovering your mouse over your username and selecting **Manage user account** (Figure 1-6).

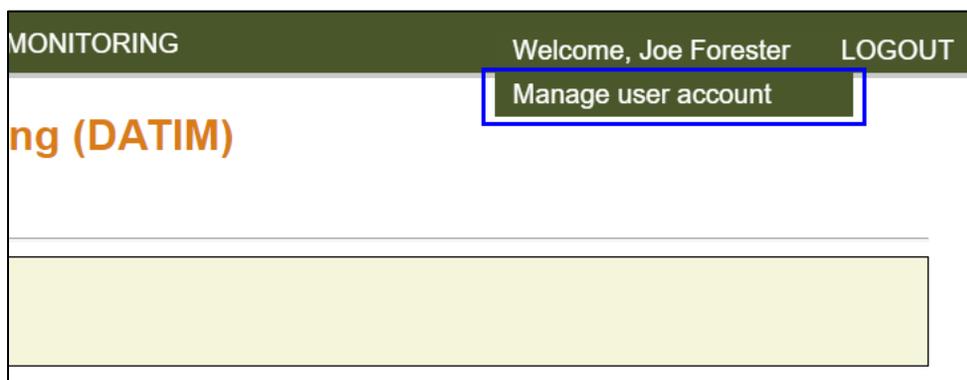


Figure 1-6. Selecting the Manage user account link.

To request a specialized user role, email sm.fs.datim@usda.gov or select Contact Us in DATIM. For more information on user roles, including role

descriptions and requirements, please visit the [RIG-DATIM \(opens in new window\)](#)¹² page and view the User Roles section.

¹² <https://www.fs.fed.us/emc/rig/DATIM/index.shtml>

Chapter 2: ATIM

Introduction to ATIM

The Analysis Tool for Inventory and Monitoring (ATIM) was developed to analyze resource inventory and monitoring data collected across the country. ATIM is used to derive estimates of current conditions for attributes associated with vegetation to meet information needs on National Forests and surrounding landscapes. ATIM is also used by the Design Tool for Inventory and Monitoring (DTIM) to evaluate whether existing data are sufficient to meet information needs.

The analysis reports created in ATIM provide unbiased, sample-based estimates of population parameters and associated sampling errors for various natural resource inventories. Statistically sound estimates of the current status and trends of vegetation and associated attributes are fundamental to:

- developing Forest Plan components
- Forest Plan monitoring associated with vegetation
- monitoring of broad-level incidence and spread of invasive plant species
- monitoring and management of wildlife habitat, including cumulative effects analysis for project level planning
- monitoring and management of fuels

Adaptive approaches are needed to address emerging monitoring requirements at the forest and landscape levels associated with climate change, carbon, biofuels, and forest certification.

ATIM analyses are composed of resource inventory datasets, known as DATIM datasets. The resource data used to create DATIM datasets constitute design and statistically-based inventories necessary for broad-level forest planning and

analysis, including FIA inventories, and Regional FS datasets. These inventory datasets serve as the building blocks of ATIM analyses and reports.

In order to monitor key components of vegetation diversity over time, the inventory must have the same attributes measured at the same locations with remeasurements occurring over a meaningful time period. Some statistically-based examples appropriate for use in broad-level planning and analysis would be seen in State, FIA, and National Forest inventories. ATIM enables you to derive unbiased estimates and confidence intervals for large landscapes such as National Forests. In addition, since the inventories used in ATIM represent a spatially balanced sample across all lands, they can be associated with various spatial datasets such as ecological section or existing vegetation layers. ATIM's integration with the Spatial Intersection Tool (SIT) enables administrative users, SIT specialists, and analysis owners to focus the analysis on a geographic area of interest, summarize the results using map-based attributes, and produce map products via ArcGIS.

Although ATIM is publicly accessible, the tool was specifically designed to assist Forest and Regional Administrators of the National Forest System (NFS) and analysts of the [Forest Inventory Analysis \(FIA\) \(opens in new window\)](#)¹³ National Program to conduct and improve inventory and monitoring data analyses.

Getting Started with ATIM

The ATIM Welcome page contains five options: Reports: Live Analyses, Reports: Static Analyses, Create New Analysis, Custom Report Manager, and Custom Analysis Manager.

¹³ <http://www.fia.fs.fed.us/>

Reports: Live Analyses runs reports using FIADB data directly ([Figure 2-1, #1](#)), therefore datasets are subject to change when updates are applied to the source datasets.

Reports: Static Analyses runs standard or saved reports and creates custom reports against existing analysis datasets ([Figure 2-1, #2](#)). When using the Static mode, your saved reports will remain static, even if the source database (FIADB) is updated.

Create New Analysis requires administrative access and allows the creation of new static analyses ([Figure 2-1, #3](#)).

The **Custom Report Manager** allows registered users to view their custom reports and reports shared with them ([Figure 2-1, #4](#)).

The **Custom Analysis Manager** allows registered users to manage their custom analyses, view analyses shared with them, and view public custom analyses ([Figure 2-1, #5](#)).

Analysis Tool for Inventory and Monitoring (ATIM)

Welcome

ATIM is used for analyzing Forest Service resource inventory and monitoring data. The reports created in ATIM provide unbiased, sample-based estimates of population parameters and associated sampling errors for various natural resource inventories.

With ATIM, you can run any of the standard reports for a given population of interest and inventory year (an analysis dataset). You can also create custom reports based on your selected criteria. Administrative users have the additional ability to create new analysis datasets for use in reporting.

To get started, select one of the tasks below.

- 1

Reports: Live Analyses

Create Live Reports i

This report wizard will guide you through the process of creating “live” reports using FIADB data directly.
- 2

Reports: Static Analyses

Create Reports Using Static Analyses i

This report wizard will guide you through the process of creating reports using “static” analysis datasets, **as required by the National Forest System (NFS) and any other users who require a non-changing dataset that they control.** These datasets will not update automatically when FIADB is updated.
- 3

Create New Analysis

Create a New Analysis Dataset (Administrative Users Only)

If you are an administrative user and want to create a new analysis dataset for a population of interest and inventory year, click the **Create New Analysis** button to begin.
- 4

Custom Report Manager

Custom Report Manager (Registered Users Only)

If you are a registered user you can manage your custom reports, see the reports that are shared with you, and view all public custom reports. Click the **Custom Report Manager** button to begin.
- 5

Custom Analysis Manager

Custom Analysis Manager (Registered Users Only)

If you are a registered user you can manage your custom analyses, see the analyses that are shared with you, and view all public custom analyses. Click the **Custom Analysis Manager** button to begin.

Figure 2-1. ATIM Home Page.

Creating Reports with Reports: Live

When creating reports, you must select an analysis and a report. Analyses provide context for running reports against the associated datasets. You can make your analysis selection by state or national forest. Note that if multiple analyses for the same state are selected, reports based on those analysis datasets may be incorrect due to double counting. Reports are filtered by land use: Forest Land and Timberland, and report options include standard reports, saved analysis reports, unsaved session reports, and custom reports. To begin, select **ATIM** in the DATIM navigation menu or the **Analysis** button on the DATIM Home page.

Step 1: Welcome!

From the ATIM Welcome page, select the **Reports: Live Analyses** button (Figure 2-1, #1). These reports will have datasets that are continuously updated when new data is applied to the source datasets (i.e. FIADB). If you wish to run reports with datasets that are non-changing, even if FIADB is updated, select [Creating Reports with Reports: Live](#).

Step 2: Open Analysis

From the Open Analysis page, you can select one or more **State** or **National Forest** (Figure 2-2, #1 & #2) analysis dataset by selecting the corresponding arrowhead to expand the list of datasets. Note that when selecting an analysis by National Forest, a filter based on Forest ownership will automatically be applied to any standard report selected. If desired, this filter can be removed on the Dataset Filters page when customizing a report, however this is not recommended.

Chosen analyses are added to the Selected Analysis Summaries box. The analysis summary provides general metadata about the selected analysis, including the DATIM datasets included and any SIT or FVS attributes included. The SIT and FVS attributes are present only for custom analyses, which are not available in live mode. To view the analysis summary, select the arrowhead next to the analysis name in the Selected Analysis Summaries box (Figure 2-2, #3). Note that in the analysis summary, the Created By and the Date Created fields represent the user, date, and time that the request for the new analysis was submitted, while the Last Modified By and the Date Modified fields represent the user, date, and time that the new analysis was successfully created in the database.

ATIM Report Wizard (Live)
Step 2: Open Analysis

▶ Help

Select Analysis by State, National Forest, or Custom

- ▶ States
- ▶ National Forests

3 Selected Analysis Summaries

▼ ARIZONA 2008: ALL AREA, CURRENT AREA, CURRENT VOLUME, GROWTH, MORTALITY [Remove](#)
Analysis Summary
 ARIZONA 2008: ALL AREA, CURRENT AREA, CURRENT VOLUME, GROWTH, MORTALITY
 Owner: FIADB
 Created By: FIADB
 Date Created: 6/19/2012 5:33:42 PM CT
 Last Modified By:
 Date Modified: 4/4/2016 10:59:25 AM CT
 Status: Loaded
 Load Date: 4/4/2016 10:59:25 AM

DATIM Datasets in this Analysis

Name	Description	Created By	Date Created	Owner	Status	Load Date	Estimation Scope	Cell Wa	Sar
383980447489998	ARIZONA 2008: 2004	FIADB	4/4/2016 10:59:25 AM	FIADB	Loaded	-	ALL AREA	Yes	

[Remove All](#)

<< ATIM Home Select Reports >>

Figure 2-2. ATIM Live Mode Open Analysis page.

Step 3: Select Reports

Before selecting a report, you have the option to only show reports for a selected land use, which include Forest Land and Timberland (Figure 2-3, #1).

The Select Reports box organizes available reports using four report types, with an arrowhead indicating that reports are available for that report type. **Standard Reports** (Figure 2-3, #2) include report templates created by DATIM representing common retrievals of estimate attributes by suggested row and

column grouping variables. The standard reports have been designed to answer most typical questions, therefore it is advised that you review these reports and become familiar with the types of analyses ATIM can answer before creating a custom report. If a standard report is similar but not exactly what you need, you have the option of customizing it after selecting it using the Customize link (Figure 2-3, #7). **Saved Analysis Reports** (Figure 2-3, #3) include any custom reports saved to the analysis in an earlier session. **Unsaved Session Reports** (Figure 2-3, #4) include custom reports you have created during the present session but have not yet saved. The **Custom Report** link (Figure 2-3, #5) allows you to create a custom report from scratch. To select your desired report, expand the arrowheads next to the report type.

When you select a standard report, the description will be listed in the Selected Report Summaries list box. Select the arrowhead next to the report title to view the report details, including information such as the owner, when the report was created, when it was last modified, filters used, PRCs associated with it, and temporal basis information (Figure 2-3, #6).

ATIM Report Wizard (Live)

Step 3: Select Reports

[▶ Help](#)

1 Show reports for the selected land use: [Apply Filter](#)

Select Reports

- 2 Standard Reports
- 3 Saved Analysis Reports
- 4 Unsaved Session Reports
- 5 [Custom Report](#)

Selected Report Summaries

6 ▼ Area of forest land, in acres, by ownership class and reserved status class

7 [Customize](#) [Remove](#)

Report Details
 Owner: DATIM
 Created By: gjbrand
 Date Created: 6/7/2017 7:00:00 AM (Central Time)
 Last Modified By: Report has not been modified
 Date Modified: Report has not been modified
 Last Run By:
 Last Run:
 Display Group: Standard Report
 Land Use: None
 Dataset Filters:
 Estimate Variable: Area of forest land, in acres
 PRCs:
 Page: None
 Row: Ownership class

[Remove All](#)

[<< Open Analysis](#) [Run Report\(s\) >>](#)

Figure 2-3. ATIM Live Mode Select Reports page.

Creating Custom Reports

If you choose to create a custom report from scratch, or edit an existing report via the Customize link, the custom report wizard will open (Figure 2-4). The custom report wizard contains seven tabs. You can navigate between them by selecting the tab of interest, or by using the next/previous buttons on the bottom of each page, except for the File+ tab, which is a dropdown menu. Note that Growth,

Removals, and Mortality (GRM) attributes cannot be used to create custom reports.

File+ Options

Hovering over the **File+** menu option activates the display of various sub-options (Figure 2-4, #1). The **Save** option enables you to save the report design to the DATIM database if you are logged in. You can select **Run Report** to run the report and view the results. Selecting the **Custom Report Manager** option when logged in will redirect you to a separate page where you can modify, delete, or share reports you own with others. On this page you can also access the reports that have been shared with you, run them, and modify them if you have been granted privilege. The Custom Report Manager can also be accessed by selecting the **Report Manager** button (Figure 2-5, #2). For more information on this, view the [Custom Report Manager](#) section.

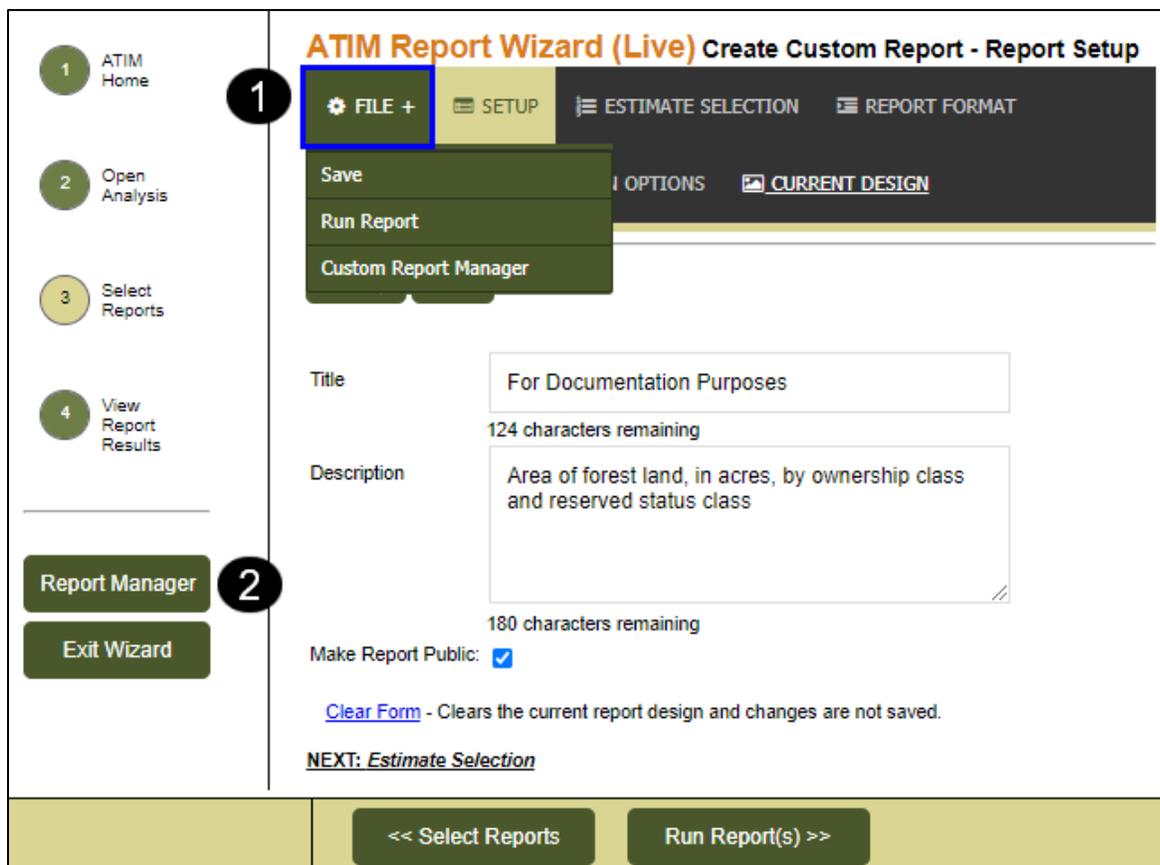


Figure 2-4. The ATIM Live Mode Custom Report Wizard File+ Option.

Report Setup

The Setup page is where you begin designing your custom report. Enter a Title (Figure 2-5, #1) and Description (Figure 2-5, #2) for your report. The title and description have a character limit of 150 characters and 255 characters, respectively. The number of characters you have remaining is shown beneath the appropriate textbox (Figure 2-5, #3 & #4). When logged in, you have the option to make your report public, where others can see your analysis or leave as private (Figure 2-5, #5).

The screenshot displays the 'ATIM Report Wizard (Live) Create Custom Report - Report Setup' page. The interface includes a top navigation bar with tabs for 'FILE +', 'SETUP' (highlighted), 'ESTIMATE SELECTION', and 'REPORT FORMAT'. Below this are sub-tabs for 'DATASET FILTERS', 'RUN OPTIONS', and 'CURRENT DESIGN'. A vertical navigation menu on the left shows steps: 1. ATIM Home, 2. Open Analysis, 3. Select Reports, and 4. View Report Results. The main content area contains:

- 'Title' field with value 'For Documentation Purposes' and '124 characters remaining' (labeled #3).
- 'Description' field with value 'Area of forest land, in acres, by ownership class and reserved status class' and '180 characters remaining' (labeled #4).
- 'Make Report Public:' checkbox which is checked (labeled #5).
- 'Clear Form' link with a tooltip: 'Clears the current report design and changes are not saved.'
- 'NEXT: Estimate Selection' link.
- Bottom navigation buttons: '<< Select Reports' and 'Run Report(s) >>'.

 A 'Report Manager' and 'Exit Wizard' button are also visible in the left sidebar.

Figure 2-5. The ATIM Live Mode Custom Report Wizard Setup page.

Estimate Selection

In the Estimate Selection page (Figure 2-6), you will choose categories of interest for the report to target estimation data.

Expand the dropdown list for the category of interest and select your desired estimate. You also have the option to select a denominator estimate if desired.

The denominator estimate is selected when you want a ratio output, for example volume per acre. Ratio estimates allow you to choose different numerators and denominators so that forest attribute summaries for subsets of data combinations of both tree and land domain variables can be selected by the user.

ATIM Report Wizard (Live) Create Custom Report - Estimate Selection

FILE + SETUP **ESTIMATE SELECTION** REPORT FORMAT

DATASET FILTERS RUN OPTIONS CURRENT DESIGN

Help Save

Select Estimate

- ▶ Area
- ▶ Carbon
- ▶ Growth
- ▶ Mortality
- ▶ Tree

Select Denominator Estimate (Optional)

- ▶ None
- ▶ Area
- ▶ Carbon
- ▶ Growth
- ▶ Mortality
- ▶ Tree

[Refresh Lists](#) ⓘ

Estimate Selection: Area of forest land, in acres
Denominator Estimate Selection: No denominator - just produce estimates

[PREVIOUS: Setup](#) [NEXT: Report Format](#)

<< Select Reports Run Report(s) >>

Figure 2-6. The ATIM Live Mode Custom Report Estimate Selection page.

Report Format

The Grouping Level ([Figure 2-7, #1](#)), Grouping Variable ([Figure 2-7, #2](#)), and Temporal Basis ([Figure 2-7, #3](#)) dropdown lists are used to specify your page, row, and/or column variables. For more information on these options select the information button next to either the Grouping Level, Grouping Variable, Temporal Basis, Page, Row, or Column. The Grouping Level specifies the geographic scope for options made available for the Grouping Variable. When available, you can also select FVS attributes for the Grouping Level and then select a corresponding FVS Grouping Variable. To get a description of the Temporal Basis expand the Help tab and select the “[Click here for a description of Temporal basis](#)”¹⁴ link.

Note that when multiple analyses are selected for the same state, you must add the [Evaluation](#) Identifier (“EVALID”) as the row attribute. To do this, select Plot as the row Grouping Level and EVALID as the row Grouping Variable.

SIT is utilized to create the county maps, therefore the creation of a county map is unavailable in Live mode because SIT is restricted to using analysis datasets that do not change.

¹⁴ <https://apps.fs.usda.gov/Evalidator/DescriptionTemporal.html>

ATIM Report Wizard (Live) Create Custom Report - Report Format

FILE + SETUP ESTIMATE SELECTION **REPORT FORMAT** DATASET FILTERS

RUN OPTIONS CURRENT DESIGN

Help Save

Estimate Selection: Area of forest land, in acres

Report Format

	1 Grouping Level <i>i</i>	2 Grouping Variable <i>i</i>	3 Temporal Basis (optional) <i>i</i>
Page	None	Select an Option	Current
Row	Subunit	Ownership class	Current
Column	Subunit	Reserved status class	Current

PREVIOUS: [Estimate Selection](#) NEXT: [Dataset Filters](#)

<< Select Reports Run Report(s) >>

Figure 2-7. The ATIM Live Mode Custom Report Wizard Report Format page.

Dataset Filters

On the Dataset Filters page, you can add a Circular Retrieval filter, with latitude and longitude in decimal degrees and radius in miles (Figure 2-8, #2), or a SQL filter if desired (Figure 2-8, #3). You can apply the SQL filter to the Numerator only or to both the Numerator and the Denominator (Figure 2-8, #4).

Note that when an analysis was selected by National Forest the filters applied will be displayed at the top of the page (Figure 2-8, #1).

ATIM Report Wizard (Live) Create Custom Report - Dataset Filters

FILE + SETUP ESTIMATE SELECTION REPORT FORMAT **DATASET FILTERS**

RUN OPTIONS CURRENT DESIGN

Help Save

1 **Virtual Dataset Filters:**
 You have entered ATIM via national forest selection. Therefore, forest dataset filters have been pre-applied to this report. To remove these filters, [click here](#).
 Currently, these filters are being applied:

- AND COND.ADFORCD IN (0919) /*Virtual filter added automatically*/

Estimate Selection: Area of forest land, in acres

2 **Add Circular Retrieval filter (Optional)**

Latitude (in decimal degrees) Between 0 and 90

Longitude (in decimal degrees) Between -180 and 0

Radius (in miles) Between 1 and 5000

3 **Add SQL Filters (Optional)**

Add filter SQL here. Example: 'and cond.owncd=11' will limit the retrieval to National Forest ownership.

4 Apply SQL filter to: Numerator Only Numerator and Denominator

PREVIOUS: [Report Format](#) NEXT: [Run Options](#)

<< Select Reports Run Report(s) >>

Figure 2-8. ATIM Live Mode Custom Report Wizard Dataset Filters page.

Run Options

The Run Options page (Figure 2-9) allows you to add customized notes to your report.

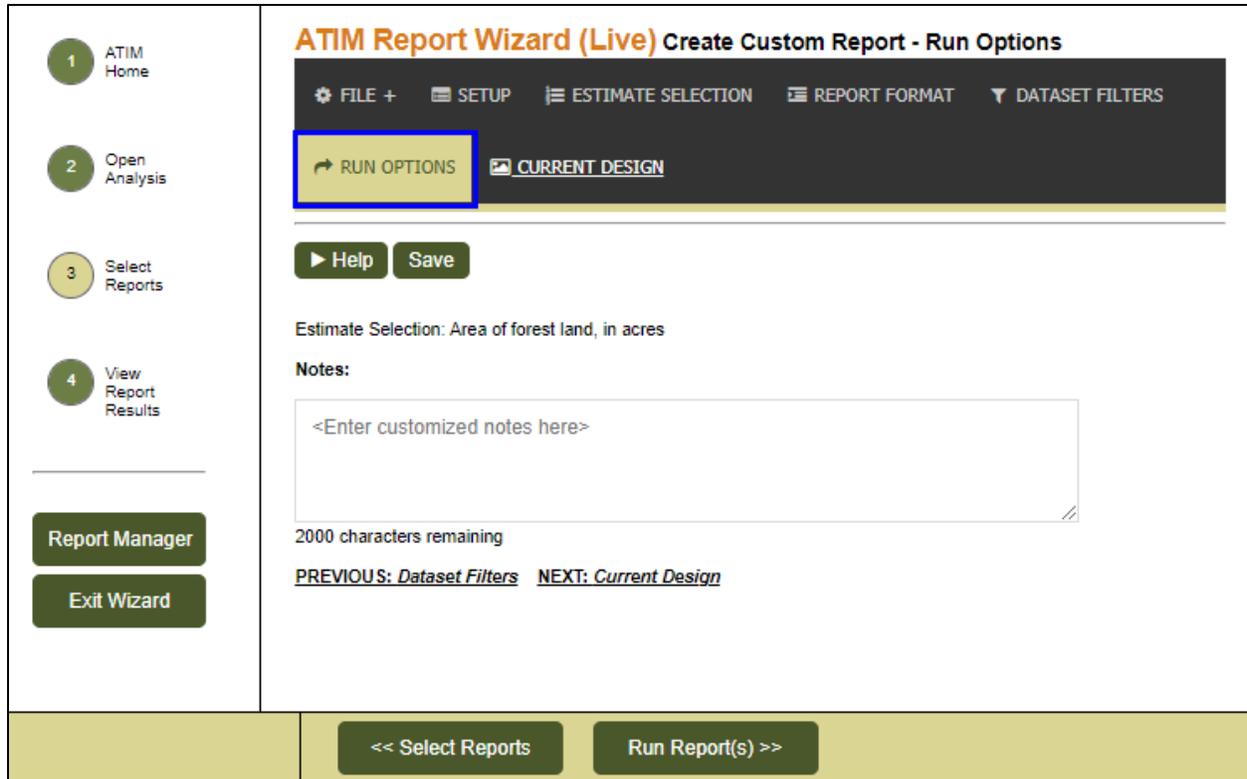


Figure 2-9. The ATIM Live Mode Custom Report Wizard Run Options page.

Current Report Design

You can view the current report design at any time during the process of creating a custom report by selecting the **Current Design** menu option (Figure 2-10). This page contains all of the selections and inputs you made while designing your custom report. You can also select the **Print Preview** link (Figure 2-10, #1) to view your report design in a separate modal [window](#).

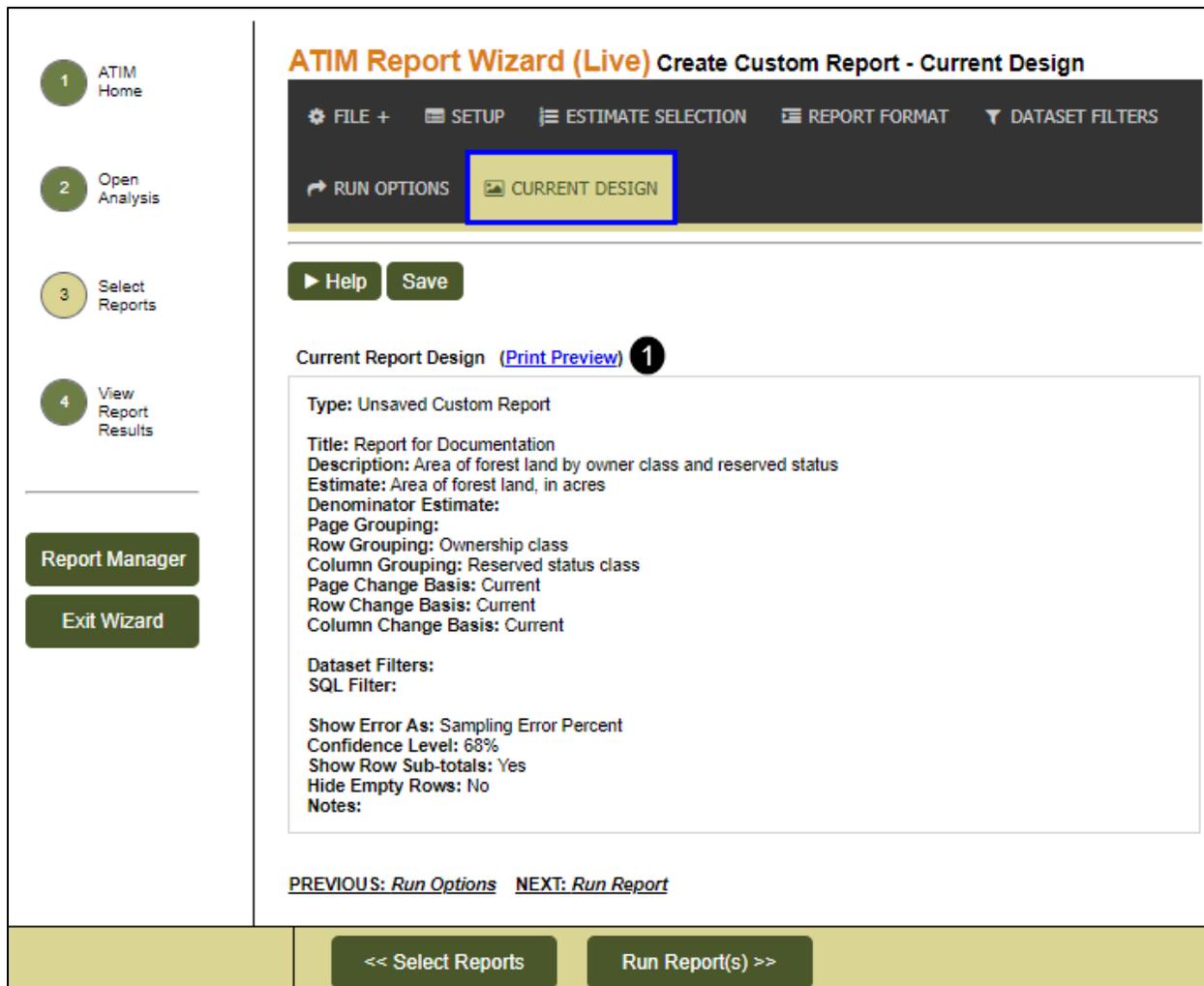


Figure 2-10. The ATIM Live Mode Custom Report Wizard Current Design page.

Step 4: View Report Results

The View Report Results page shows the compatibility of the report design with the analysis and the **Excel**, **XML**, and **HTML** report outputs (Figure 2-11). Although you may open the XML output, this is used by programmers for debugging purposes and is not recommended for users. Along with the different report formats, the EVALIDator API Request is also shown. Showing the EVALIDator API request allows users to view the method DATIM used to retrieve the data displayed so that the results can be reproduced external to DATIM if desired. In ATIM live mode an application programming interface (API) is created that can connect to an external resource, EVALIDator, to run the reports.

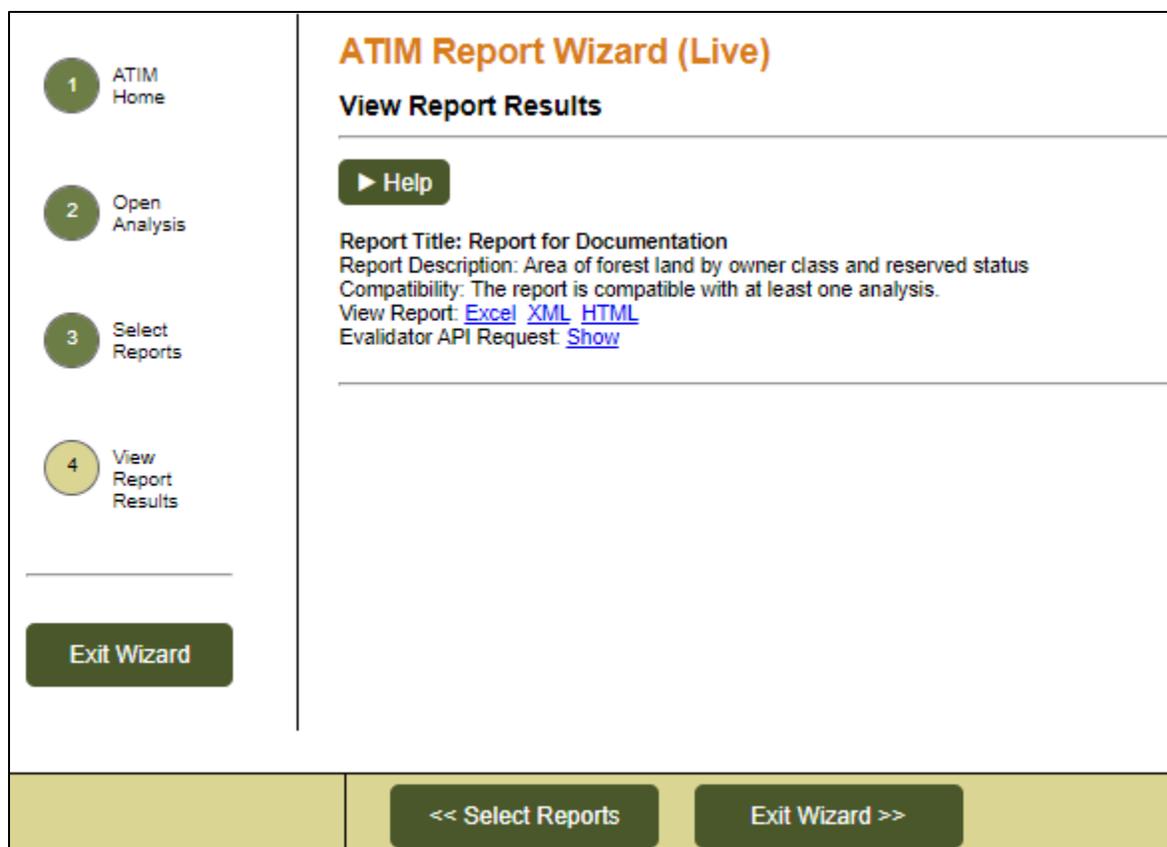


Figure 2-11. The ATIM Live Mode View Report Results page.

The Excel output table contains three worksheets: **Header Details**, **Summary Report**, and **Summary Attribute**. Note that when a report uses pages there will be multiple Summary Report and Summary Attributes tabs corresponding with the number of pages that the report is separated into. The Header Details will include the same information that is included in the header of the HTML output. This includes the general information, estimate attribute, land base, filters, temporal basis, variables, selected analyses, and analysis datasets (Figure 2-12).

The Summary Report shows the estimates, non-zero plots, domain plots, sampling error percent, sampling error percent, variance, lower and upper bounds with a 68% CI, and the total (Figure 2-13).

The Summary Attribute shows the attributes associated with the estimates (Figure 2-14).

1	General Information	
2	Title	Report for Documentation
3	Description	Area of forest land by owner class and reserved status
4	Sampling Error Type	post-stratification
5	Show Subtotals	Y
6	Show Confidence Intervals	N
7	Confidence Interval	68%
8	Hide Empty Rows	N
9	Report Created	01/29/21 05:30 AM (UTC-8)
10	Report Created By	JoeForester
11	Note	
12	Method	The Enhanced Forest Inventory and Analysis Program - National Sampling Design and Estimation Procedures
13	ATIM Mode	Live
14		
15	Estimate Attribute	
16	Description Short	Area of forest land, in acres
17		
18	Land Base	Forest land
19	SQL Filter	None
20	Land Base	Forest land
21	Circle Center Latitude	None
22	Circle Center Longitude	None
23	Circle Radius	None
24	Page Temporal Basis	Current
25	Row Temporal Basis	Current
26	Col Temporal Basis	Current
27		
28		
29	Variables	
30	Variable	Table Name
31	Page	
32	Row	
33	Column	
34		
35	Selected Analyses	
	ARIZONA 2008: ALL AREA, CURRENT AREA, CURRENT	
36	VOLUME, GROWTH, MORTALITY	FIADB
<div style="border: 1px solid black; padding: 2px;"> < > Header Details Summary Report 1 Summary Attributes 1 + : < </div>		

Figure 2-12. The ATIM Live Mode Excel Output Results with the Header Details shown.

	A	B	C	D
1	Report for Documentation			
2	02/04/2021			
3				
4		Non Zero Plots	Domain Plots	Sampling Error Percent
5	National Forest			
6	National Forest / Not reserved	964	0	2.46
7	National Forest / Reserved	87	0	10.73
8	Row Total	1,051	0	2.29
9				
10	National Park Service			
11	National Park Service / Not reserved	-	0	0.00
12	National Park Service / Reserved	52	0	14.14
13	Row Total	52	0	14.14
14				
15	Bureau of Land Mgmt			
16	Bureau of Land Mgmt / Not reserved	126	0	8.82
17	Bureau of Land Mgmt / Reserved	83	0	10.41
18	Row Total	209	0	6.37
19				
20	Fish and Wildlife Service			
21	Fish and Wildlife Service / Not reserved	-	0	0.00
22	Fish and Wildlife Service / Reserved	12	0	31.28
23	Row Total	12	0	31.28
24				
25	Dept of Defense			
26	Dept of Defense / Not reserved	8	0	36.61
27	Dept of Defense / Reserved	-	0	0.00
28	Row Total	8	0	36.61
29				

Figure 2-13. The ATIM Live Mode Excel Output Results with the Summary Report 1 shown.

	A	B	C	D
1	Report for Documentation			
2	02/04/2021			
3				
4	Group	Not reserved	Reserved	Total
5	National Forest	6,999,446.00000	631,921.00000	7,631,367.00000
6	National Park Service	-	375,353.00000	375,353.00000
7	Bureau of Land Mgmt	889,941.00000	597,471.00000	1,487,412.00000
8	Fish and Wildlife Service	-	94,453.00000	94,453.00000
9	Dept of Defense	54,631.00000	-	54,631.00000
10	State	1,520,598.00000	-	1,520,598.00000
11	County and Municipal	28,309.00000	-	28,309.00000
12	Private	7,334,837.00000	-	7,334,837.00000
13				
14	Totals	16,827,763.00000	1,699,197.00000	18,526,960.00000
15				
16	Suggested Citation:	Web citation: USDA Forest Service, Forest Inventory and Analy		
38				

Header Details
Summary Report 1
Summary Attributes 1
+

Figure 2-14. The ATIM Live Mode Excel Output Results with the Summary Attributes 1 shown.

The XML report allows users to view and save the ATIM-encoding portion of the report contents (Figure 2-15).

XML Report Viewer

Design and Analysis Toolkit for Inventory and Monitoring

```

<-<Data xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlVersion="0">
  <-<Page domain_plots="-" non_zero_plots="2578" ord="1" p0="--null--" sampling_error="221210.649713162"
    sampling_error_percent="1.1939932363846464" total="18526960.03395945" total_denom="0" total_ratio="0" variance="48934151546.519432">
    <-<Row domain_plots="0" non_zero_plots="0" ord="9999" r0="COL_SUBTOTAL" sampling_error="0" sampling_error_percent="0" total="0"
      total_denom="0" total_plots="0" total_ratio="0" variance="0">
      <-<Column c0="Not reserved" non_zero_plots="2345" ord="1" sampling_error="224576.985095028"
        sampling_error_percent="1.3345623582641444" total="16827762.57732412" value_denom="0" value_ratio="0" variance="50434822234.372383">
        1.682776257732412E7
      <-<Column>
      <-<Column c0="Reserved" non_zero_plots="234" ord="2" sampling_error="105963.55083152" sampling_error_percent="6.2360940111894863"
        total="1699197.456635324" value_denom="0" value_ratio="0" variance="11228274104.82402">
        1699197.456635324
      <-<Column>
    <-<Row>
    <-<Row domain_plots="-" non_zero_plots="1051" ord="1" r0="National Forest" sampling_error="174630.95410666"
      sampling_error_percent="2.2883313609947895" total="7631366.553082779" total_denom="0" total_ratio="0" variance="30495970132.202507">
      <-<Column c0="Not reserved" non_zero_plots="964" ord="1" sampling_error="172143.29203059" sampling_error_percent="2.4593846049638248"
        total="6999445.783435011" value_denom="0" value_ratio="0" variance="29633312991.129074">
        6999445.783435011
      <-<Column>
      <-<Column c0="Reserved" non_zero_plots="87" ord="2" sampling_error="67821.4828611844" sampling_error_percent="10.732592774089094"
        total="631920.7696477668" value_denom="0" value_ratio="0" variance="459753537.4899311">
  
```

Figure 2-15. The ATIM Live Mode XML Report Viewer.

The HTML report output opens the Estimate Report Viewer which includes the metadata report information, estimate table, graphs, maps, non-Zero Plots table, and references, notes, and suggested citation sections for your report (Figure 2-16).

Estimate Report Viewer

Design and Analysis Toolkit for Inventory and Monitoring

Report title: Report for Documentation
 Description: Area of forest land by owner class and reserved status
 Selected Analyses:
 ARIZONA 2008: ALL AREA, CURRENT AREA, CURRENT VOLUME, GROWTH, MORTALITY
 Selected Analysis Datasets:
 ARIZONA 2008: 2001-2008: ALL AREA
 ARIZONA 2008: 2001-2008: CURRENT AREA, CURRENT VOLUME
 ARIZONA 2008: 2001-2008: GROWTH, MORTALITY
 Estimate attribute: Area of forest land, in acres
 Page attribute: None
 Row attribute: Ownership class
 Column attribute: Reserved status class
 Land base: Forest land
 Filters:
 SQL filter:
 SQL filter (applied to numerator and denominator):
 SQL filter (applied to numerator only):
 Circle latitude:
 Circle longitude:
 Circle radius:
 Page temporal basis: Current
 Row temporal basis: Current
 Col temporal basis: Current
 Confidence Interval: 68%
 Sampling design/estimation method: post-stratification
 Method: The Enhanced Forest Inventory and Analysis Program - National Sampling Design and Estimation Procedures [1](#)
 ATIM mode (live/static): Live
 Report created: 01/29/21 05:30 AM (UTC-8)
 Report created by: JoeForester

Estimate:
 Report cells show estimate values followed by sampling error percentages (in parentheses).

Ownership class	Reserved status class		
	Not reserved	Reserved	Total
National Forest	6,999,446 (2.46%)	631,921 (10.73%)	7,631,367 (2.29%)
National Park Service	-	375,353 (14.14%)	375,353 (14.14%)
Bureau of Land Mgmt	889,941 (8.82%)	597,471 (10.41%)	1,487,412 (6.37%)
Fish and Wildlife Service	-	94,453 (31.28%)	94,453 (31.28%)

Figure 2-16. The ATIM Live Mode HTML Report Output.

Creating Reports with Reports: Static

When creating reports, you must select an analysis and a report. Analyses provide context for running reports against the associated datasets. You can make your analysis selection by state, national forest or custom. Note that if multiple analyses for the same state are selected, reports based on those analysis datasets may be incorrect due to double counting. Reports are filtered by land use: Forest Land and Timberland, and report options include standard reports, saved analysis reports, unsaved session reports, and custom reports. To

begin, select **ATIM** in the DATIM navigation menu or the **Analysis** button on the DATIM Home page.

Step 1: Welcome!

From the ATIM Welcome page, select the **Reports: Static Analyses** button (Figure 2-17, #1). These reports use datasets that are non-changing, even if FIADB is updated. If you wish to run reports with datasets that are continuously updated when new data is applied to the source datasets (i.e. FIADB), select [Creating Reports with Reports: Live](#).

Analysis Tool for Inventory and Monitoring (ATIM)

Welcome, Joe Forester

ATIM is used for analyzing Forest Service resource inventory and monitoring data. The reports created in ATIM provide unbiased, sample-based estimates of population parameters and associated sampling errors for various natural resource inventories.

With ATIM, you can run any of the standard reports for a given population of interest and inventory year (an analysis dataset). You can also create custom reports based on your selected criteria. Administrative users have the additional ability to create new analysis datasets for use in reporting.

To get started, select one of the tasks below.

<div style="background-color: #4F7942; color: white; padding: 5px; border-radius: 5px; margin-bottom: 10px;">Reports: Live Analyses</div>	<p>Create Live Reports i</p> <p style="font-size: x-small;">This report wizard will guide you through the process of creating "live" reports using FIADB data directly.</p>
<div style="background-color: #4F7942; color: white; padding: 5px; border-radius: 5px; margin-bottom: 10px;">Reports: Static Analyses</div>	<p>Create Reports Using Static Analyses i</p> <p style="font-size: x-small;">This report wizard will guide you through the process of creating reports using "static" analysis datasets, as required by the National Forest System (NFS) and any other users who require a non-changing dataset that they control. These datasets will not update automatically when FIADB is updated.</p>
<div style="background-color: #4F7942; color: white; padding: 5px; border-radius: 5px; margin-bottom: 10px;">Create New Analysis</div>	<p>Create a New Analysis Dataset (Administrative Users Only)</p> <p style="font-size: x-small;">If you are an administrative user and want to create a new analysis dataset for a population of interest and inventory year, click the Create New Analysis button to begin.</p>
<div style="background-color: #4F7942; color: white; padding: 5px; border-radius: 5px; margin-bottom: 10px;">Custom Report Manager</div>	<p>Custom Report Manager (Registered Users Only)</p> <p style="font-size: x-small;">If you are a registered user you can manage your custom reports, see the reports that are shared with you, and view all public custom reports. Click the Custom Report Manager button to begin.</p>
<div style="background-color: #4F7942; color: white; padding: 5px; border-radius: 5px; margin-bottom: 10px;">Custom Analysis Manager</div>	<p>Custom Analysis Manager (Registered Users Only)</p> <p style="font-size: x-small;">If you are a registered user you can manage your custom analyses, see the analyses that are shared with you, and view all public custom analyses. Click the Custom Analysis Manager button to begin.</p>

Figure 2-17. ATIM Home Page.

Step 2: Open Analysis

From the Open Analysis page, you can select one or more **State, National Forest, Custom, or Shared with Me** (Figure 2-18, #1, #2, #3, #4) analysis datasets by selecting the corresponding arrowhead to expand the list of datasets. Note that when selecting an analysis by National Forest, a filter based on Forest ownership will automatically be applied to any standard report selected. If desired, this filter can be removed on the Dataset Filters page when customizing a report, however this is not recommended.

Chosen analyses are added to the Selected Analysis Summaries box. The analysis summary provides general metadata about the selected analysis, including the DATIM datasets included and any SIT or FVS attributes included. The SIT and FVS attributes are present only for custom analyses. To view the analysis summary, select the arrowhead next to the analysis name in the Selected Analysis Summaries box ([Figure 2-18, #5](#)). Note that in the analysis summary, the Created By and the Date Created fields represent the user, date, and time that the request for the new analysis was submitted, while the Last Modified By and the Date Modified fields represent the user, date, and time that the new analysis was successfully created in the database.

To export analysis datasets into a CSV format, select the **Export CSV** link next to the analysis ([Figure 2-18, #6](#)).

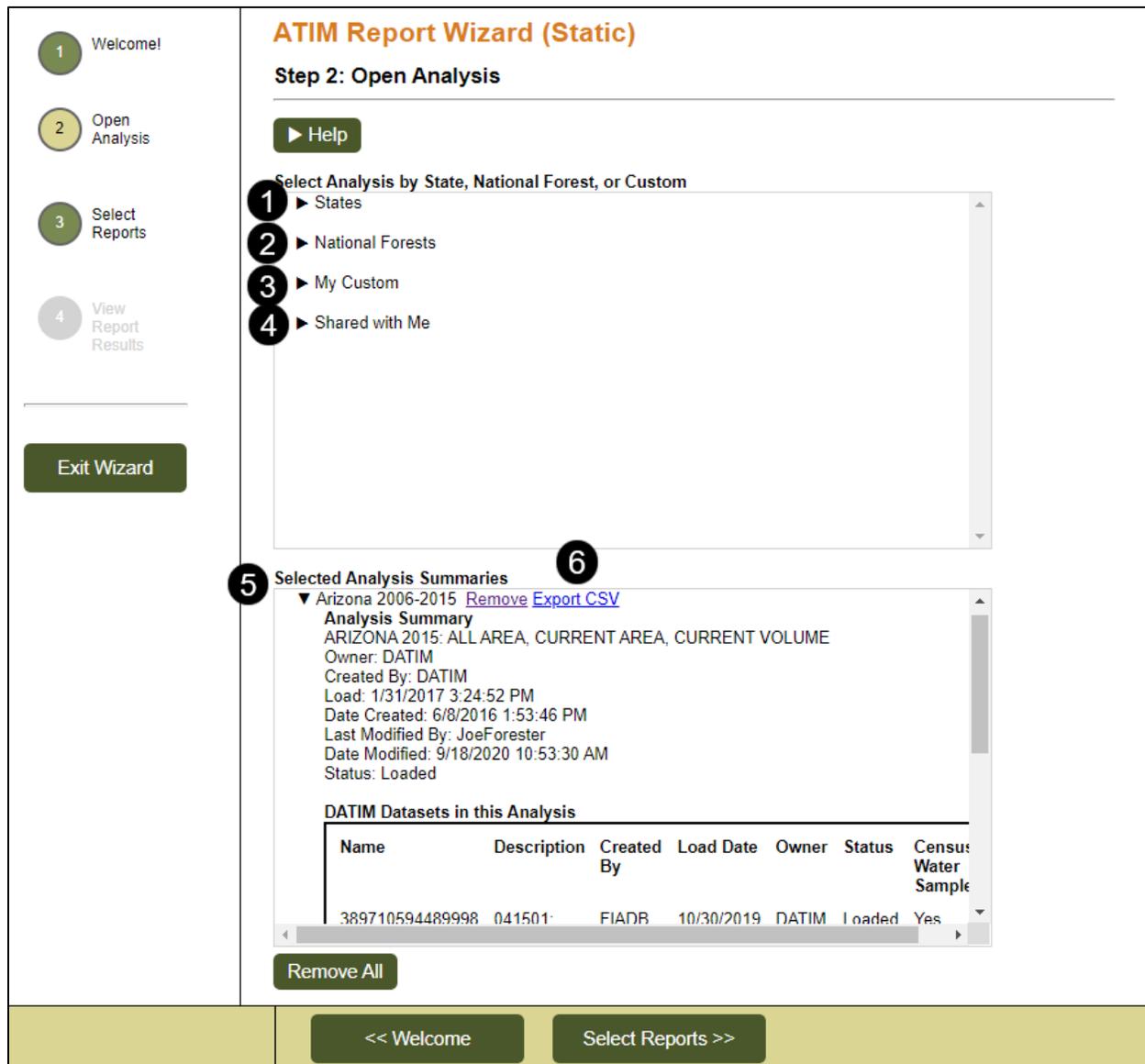


Figure 2-18. ATIM Static Mode Open Analysis page.

The ATIM Export Tool will open, select the **Prepare Export** button to continue (Figure 2-19, #1). This process may take up to ten minutes. Once the export is prepared, the **Download CSV Export** button will appear and you can download your analysis (Figure 2-19, #2). Please note that the associated fuzzed SIT data will be exported with the CSV file but real coordinates will not. Also note that large datasets, such as Oregon, may not be able to be exported. The Export CSV link is not available for use in Live mode because the data is live and may contain sensitive information only permissible to administrative users and must be protected from external distribution.



Figure 2-19. ATIM Export Tool.

Step 3: Select Reports

Before selecting a report, you have the option to only show reports for a selected land use, which include Forest Land and Timberland (Figure 2-20, #1).

The Select Reports box organizes available reports using four report types, with an arrowhead indicating that reports are available for that report type. **Standard Reports** (Figure 2-20, #2) include report templates created by DATIM representing common retrievals of estimate attributes by suggested row and column grouping variables. The standard reports have been designed to answer most typical questions, therefore it is advised that you review these reports and become familiar with the types of analyses ATIM can answer before creating a custom report. If a standard report is similar but not exactly what you need, you have the option of customizing it after selecting it using the **Customize** link (Figure 2-20, #8). Note that the Customize link won't appear until after a standard report is selected. **Saved Analysis Reports** (Figure 2-20, #3) include any custom reports saved to the analysis in an earlier session. **Unsaved Session Reports** (Figure 2-20, #4) include custom reports you have created during the present session but have not yet saved. The **Custom Report** link (Figure 2-20, #5) allows you to create a custom report without using a template. To select your desired report, expand the arrowheads next to the report type.

You can also load a report design previously saved to your local file directory to run in this current session (Figure 2-20, #6).

When you select a standard report, the description will be listed in the Selected Report Summaries list box. Select the arrowhead next to the report title to view the report details, including information such as the owner, when the report was

created, when it was last modified, filters used, PRCs associated with it, and temporal basis information (Figure 2-20, #7).

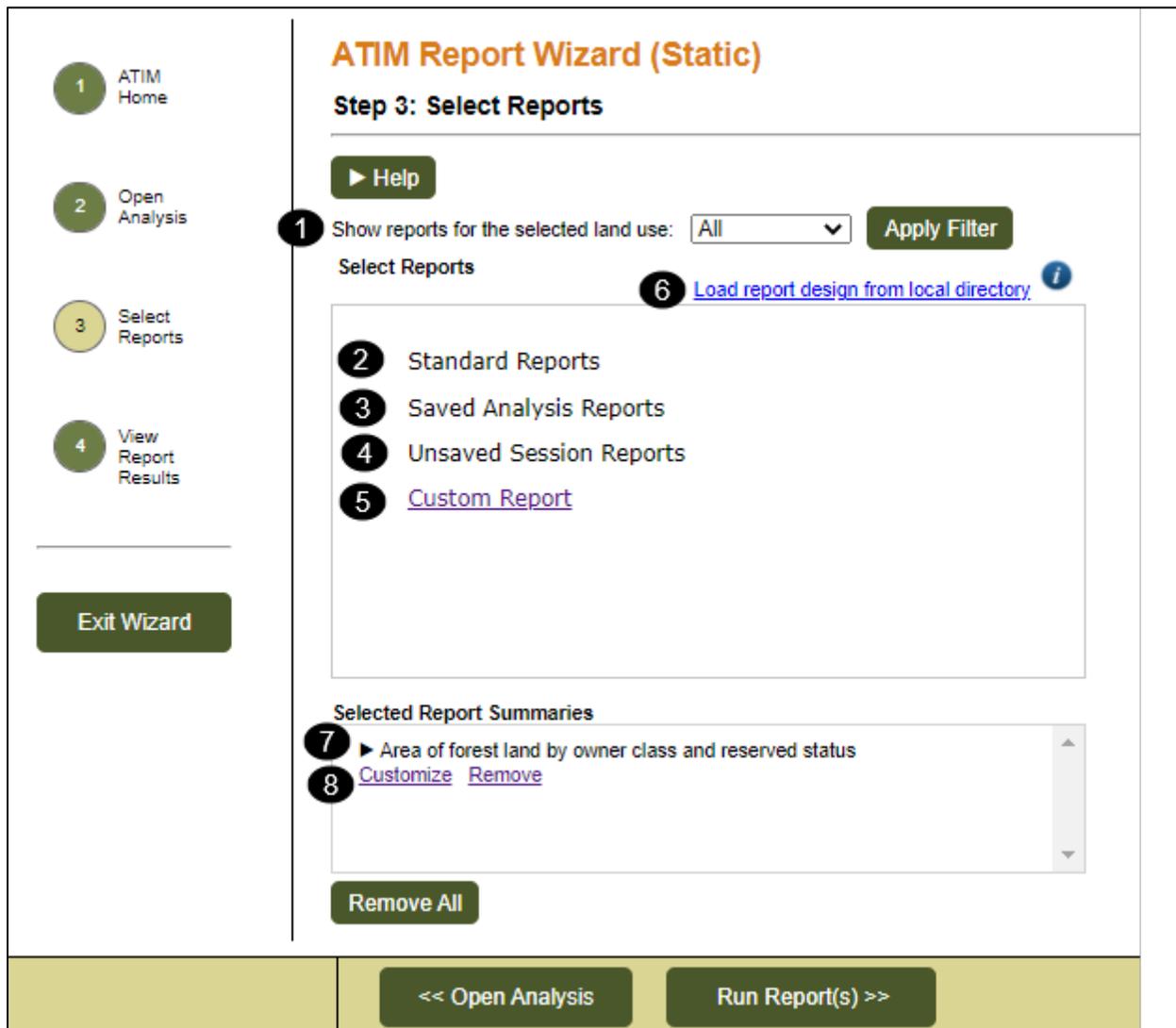


Figure 2-20. ATIM Static Mode Select Reports page.

Creating Custom Reports

If you choose to create a custom report from scratch, or edit an existing report via the Customize link, the custom report wizard will appear (Figure 2-23). The custom report wizard contains seven tabs. You can navigate between them by selecting the tab of interest, or by using the next/previous buttons on the bottom of each page (except for the File+ tab, which is a dropdown menu). Note that Growth, Removals, and Mortality (GRM) attributes cannot be used to create custom reports.

File+ Options

Selecting the **File+** menu option activates the display of various sub-options. The **Save to Local** option enables you to save the report design to your local hard drive (available only for static reports), which can load back into DATIM in a future session. The **Save** option enables you to save the report design to the DATIM database if you are logged in. You can select **Run Report** to run the report and view the results. Selecting the **Custom Report Manager** option when logged in will redirect you to a separate page where you can modify, delete, or share reports you own with others. On this page you can also access the reports that have been shared with you, run them, and modify them if you have been granted privilege. For more information on this, view the Custom Report Manager section. (Figure 2-21).

ATIM Report Wizard (Static) Create Custom Report - Report Setup

[FILE +](#)
[SETUP](#)
[ESTIMATE SELECTION](#)
[REPORT FORMAT](#)

[Save to Local](#)
[OPTIONS](#)
[CURRENT DESIGN](#)

Save

Run Report

Custom Report Manager

Title: For Documentation Purposes
123 characters remaining

Description: Area of forest land by owner class and reserved class
202 characters remaining

Make Report Public:

[Clear Form](#) - Clears the current report design and changes are not saved.

NEXT: [Estimate Selection](#)

<< Select Reports Run Report(s) >>

Figure 2-21. The ATIM Static Mode Custom Report Wizard File+ Option.

Report Setup

The Setup page is where you begin designing your custom report. Enter a Title (Figure 2-22, #1) and Description (Figure 2-22, #2) for your report. The title and description have a character limit of 150 characters and 255 characters, respectively. The number of characters you have remaining is shown beneath the appropriate textbox (Figure 2-22, #3 & #4). When logged in, you have the option to make your report public, where others can see your analysis or leave as private (Figure 2-22, #5).

The screenshot displays the ATIM Report Wizard (Static) interface for the Report Setup stage. On the left, a vertical navigation menu lists four steps: 1. ATIM Home, 2. Open Analysis, 3. Select Reports, and 4. View Report Results. Below the menu are buttons for 'Report Manager' and 'Exit Wizard'. The main content area features a dark header with tabs for 'FILE +', 'SETUP' (highlighted with a blue box), 'ESTIMATE SELECTION', and 'REPORT FORMAT'. Below the header are buttons for 'DATASET FILTERS', 'RUN OPTIONS', and 'CURRENT DESIGN'. The main form contains:

- A 'Title' field with the text 'Report for Documentation' and a remaining character count of 126 (labeled #3).
- A 'Description' field with the text 'Area of forest land by owner class and reserved status' and a remaining character count of 201 (labeled #4).
- A 'Make Report Public' checkbox that is checked (labeled #5).
- A 'Clear Form' link with the text 'Clears the current report design and changes are not saved.'
- A 'NEXT: Estimate Selection' button.

 At the bottom of the page, there are two large buttons: '<< Select Reports' and 'Run Report(s) >>'. A vertical scrollbar is visible on the right side of the main content area.

Figure 2-22. The ATIM Static Mode Custom Report Wizard Setup page.

Estimate Selection

In the Estimate Selection tab, you will choose categories of interest for the report to target estimation data.

Expand the dropdown list for the category of interest and select your desired estimate (Figure 2-23). You also have the option to select a denominator

estimate if desired. The denominator estimate is selected when you want a ratio output, for example volume per acre. Ratio estimates allow you to choose different numerators and denominators so that forest attribute summaries for subsets of data—combinations of both tree and land domain variables—can be selected by the user.

Any Forest Vegetation Simulator (FVS) attributes created in DCS are also available for selection as an estimate in the FVS estimate category. If a desired FVS attribute is not available, this attribute can be turned on in DCS by an administrator. If the attribute has not been run through DCS and uploaded to the DATIM datamart the report may state, “No Rows Found”. For more information on adding FVS attributes view the [Updating FVS Attributes](#) section in DCS.

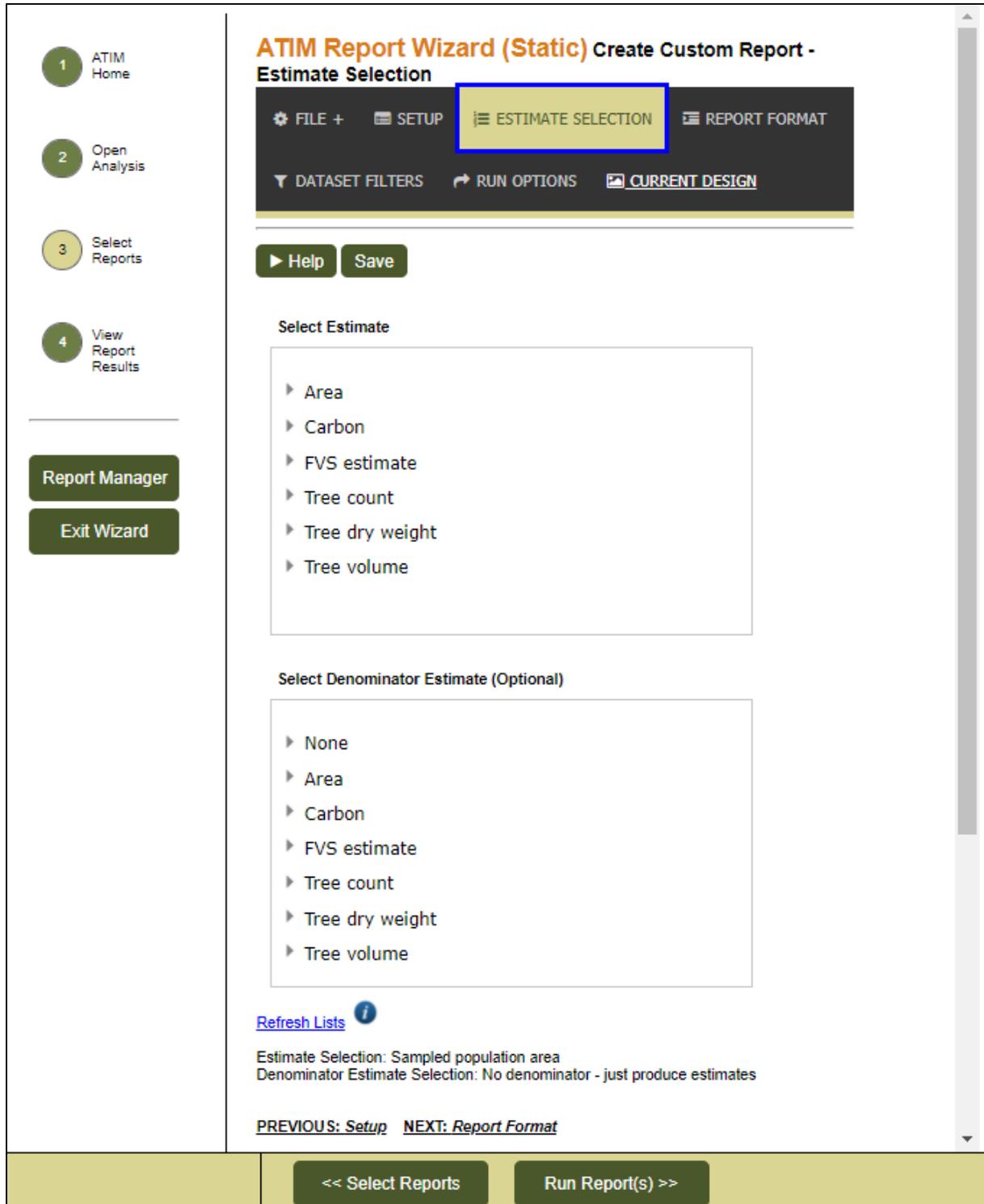


Figure 23. The ATIM Static Mode Custom Report Estimate Selection page.

Report Format

The Grouping Level (Figure 2-24, #1) and Grouping Variable (Figure 2-24, #2) dropdown lists are used to specify your page, row, and/or column variables. The Grouping Level specifies the geographic scope for options made available for the Grouping Variable. Below the County Map section on the Report Format page, you will see the status of your map. If the status is false, no map will be displayed. If the status is true, a map will be displayed. In order to have a map displayed, in the report format table, the page must have a grouping level of none and in row or column, a grouping level of plot and a grouping variable of county must be selected. (Figure 2-24, #3). When available, you can also select FVS attributes for the Grouping Level and then select a corresponding FVS Grouping Variable.

Note that when multiple analyses are selected for the same state, you must add the [Evaluation](#) Identifier (“EVALID”) as the row attribute. To do this, select Plot as the row Grouping Level and EVALID as the row Grouping Variable.

The screenshot displays the ATIM Report Wizard (Static) interface for creating a custom report. The main content area is titled "ATIM Report Wizard (Static) Create Custom Report - Report Format". A navigation bar at the top includes "FILE +", "SETUP", "ESTIMATE SELECTION", and "REPORT FORMAT" (highlighted with a blue box). Below the navigation bar are "DATASET FILTERS", "RUN OPTIONS", and "CURRENT DESIGN" options. A "Help" and "Save" button are present. The "Estimate Selection" is set to "Sampled population area".

The "Report Format" section contains the following fields:

- Grouping Level** (labeled with a circled 1): A dropdown menu currently set to "None".
- Grouping Variable** (labeled with a circled 2): A dropdown menu currently set to "Select an Option".
- Row**: A dropdown menu currently set to "Subunit".
- Column**: A dropdown menu currently set to "Subunit".

The "County Map" section (labeled with a circled 3) includes a checkbox labeled "Map will be shown" which is currently unchecked, with the value "False" displayed next to it.

At the bottom of the page, there are navigation buttons: "<< Select Reports" and "Run Report(s) >>".

Figure 2-24. The ATIM Static Mode Custom Report Wizard Report Format page.

Dataset Filters

On the Dataset Filters page, you will select filter values for inclusion in the report retrieval. You can filter your report by selecting a filter level, a filter attribute, and then adding one or more filter value(s). Continue this process until all desired filters are selected. The filter levels that are available for selection are dependent on the scope of the estimate attribute. You must select a filter level before you can select a filter attribute.

The Plot filter level applies to variables collected on the entire plot. The Subunit filter level applies to variables collected on only a portion of the plot (ex. Subplot, microplot, transect, or condition). The Tree/Sampling filter level applies to variables collected on trees and saplings greater than 1 inch in diameter. The Seedling filter level applies to variables collected on live seedlings. The Spatial Intersection Tool (SIT) attribute filter level applies to variables added to the analysis using SIT.

You can add custom dataset filters using filter levels and filter attributes ([Figure 2-25, #2](#)). Any selected filters are added to the Selected Filters window ([Figure 2-25, #3](#)). When available, you can add FVS attributes as a Filter Level then select the corresponding FVS Filter Attribute. You can also add Circular Retrieval filters if desired, with latitude and longitude in decimal degrees and radius in miles ([Figure 2-25, #4](#)). Note that when an analysis was selected by National Forest the filters applied will be displayed at the top of the page ([Figure 2-25, #1](#)).

ATIM Report Wizard (Static) Create Custom Report - Dataset Filters

FILE + SETUP ESTIMATE SELECTION REPORT FORMAT

DATASET FILTERS RUN OPTIONS CURRENT DESIGN

Help

1 **Virtual Dataset Filters:**
 You have entered ATIM via national forest selection. Therefore, forest dataset filters have been pre-applied to this report. To remove these filters, [click here](#).
 Currently, these filters are being applied:
 • Administrative (AD) Forest: Allegheny (R9)

Estimate Selection: Sampled population area

2 **Add Dataset Filters**

Filter Level *i* None ▾
 Filter Attribute *i* None ▾
 Filter Values *i* Select Filter Values

3 **Selected Filters**

Filter Level	Filter Attribute	Filter Values
Plot	Administrative (AD) Forest	Allegheny (R9)
Subunit	Land use - major	Accessible forest land Remove Edit/View

Remove All

4 **Add Circular Retrieval filter (Optional)**

Latitude (in decimal degrees)
 Between 0 and 90

Longitude (in decimal degrees)
 Between -180 and 0

Radius (in miles)
 Between 1 and 5000

PREVIOUS: [Report Format](#) NEXT: [Run Options](#)

<< Select Reports Run Report(s) >>

Figure 2-25. ATIM Static Mode Custom Report Wizard Dataset Filters page.

Run Options

The Run Options page allows you to show the error as sampling error percent or confidence interval (Figure 2-26, #1), the Confidence Level (Figure 2-26, #2), hide rows (Figure 2-26, #3), and add notes to your report (Figure 2-26, #4).

Figure 2-26. The ATIM Static Mode Custom Report Wizard Run Options page.

Current Report Design

You can view the current report design at any time during the process of creating a custom report by selecting the **Current Design** menu option. This page contains all of the selections and inputs you made while designing your custom report. You can also select the **Print Preview** link (Figure 2-27) to view your report design in a separate modal window.

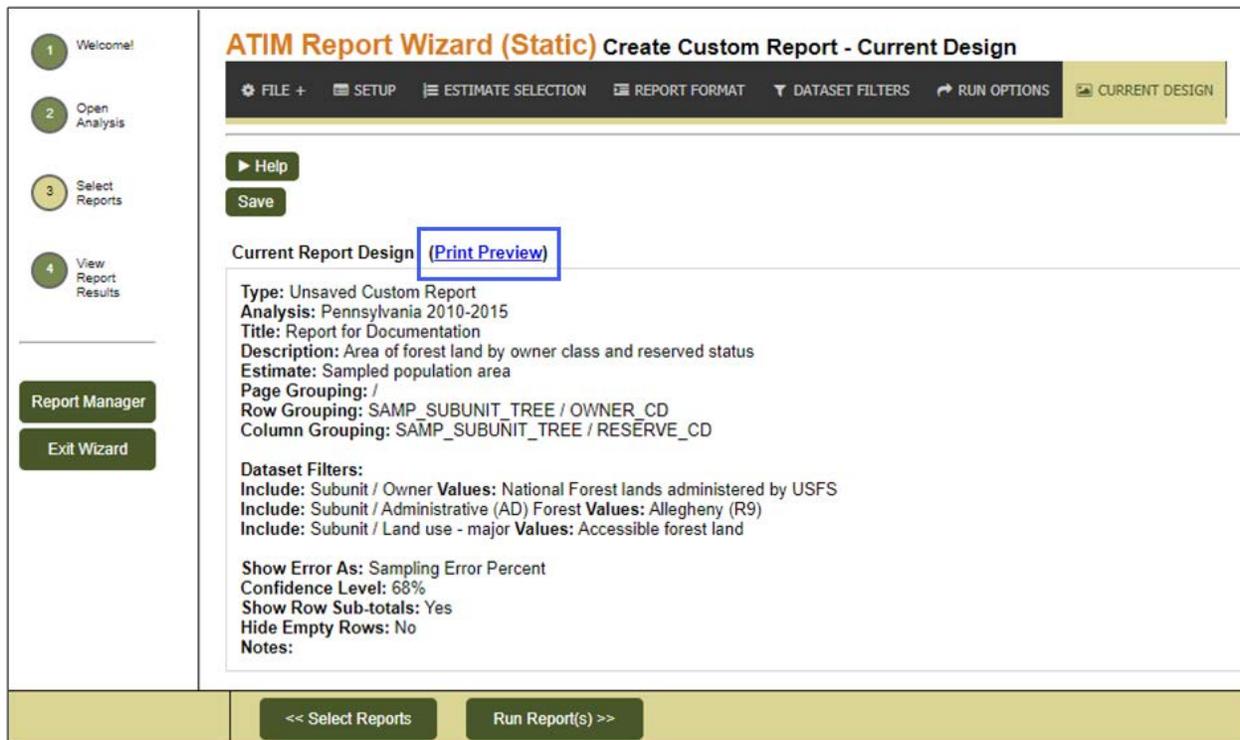


Figure 2-27. The ATIM Static Mode Custom Report Wizard Current Design page.

Step 4: View Report Results

The View Report Results page shows the compatibility of the report design with the analysis and the **Excel**, **XML**, and **HTML** report outputs (Figure 2-28). Although you may download the XML output, this is used by programmers for debugging purposes and is not recommended for users. Along with the different report formats, the query is also shown. Showing the query allows users to view the method DATIM used to retrieve the data displayed so that the results can be reproduced external to DATIM if desired. In ATIM static mode the DATIM database queries are run against DATIM's DataMart.

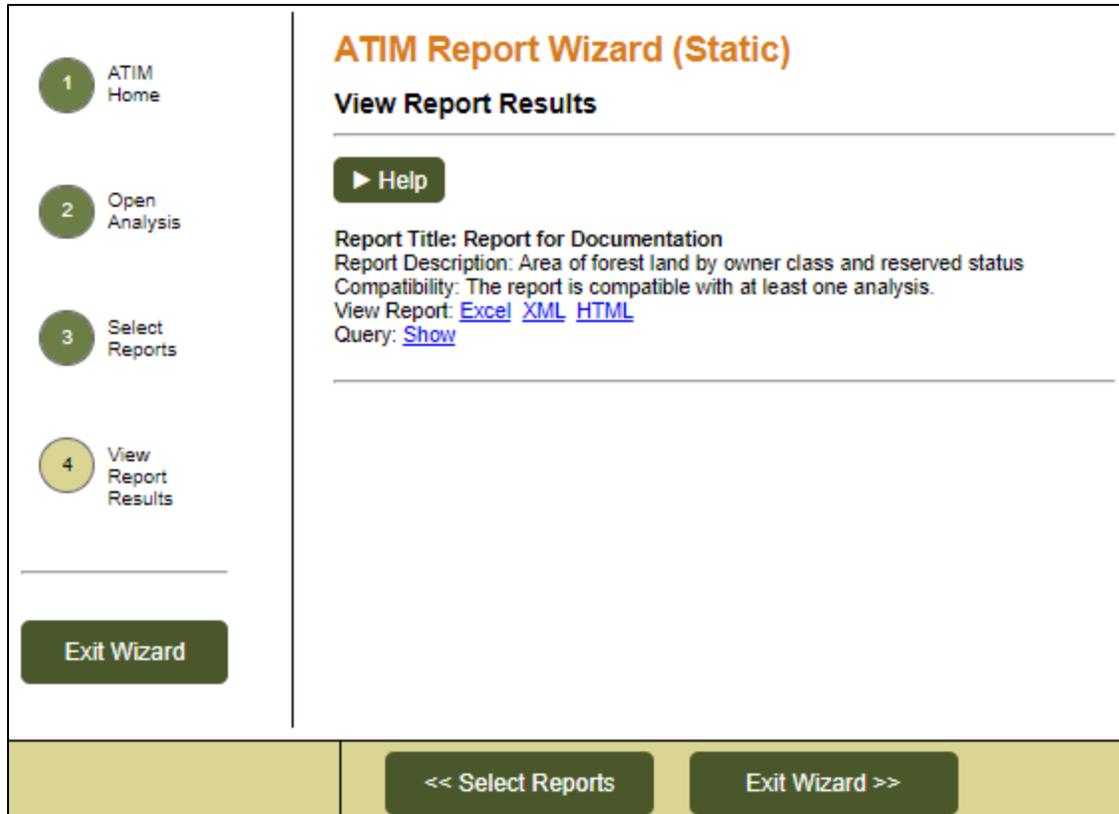


Figure 2-28. The ATIM Static Mode View Report Results page.

The Excel output table contains three worksheets: **Header Details**, **Summary Report**, and **Summary Attribute**. Note that when a report uses pages there will be multiple Summary Report and Summary Attributes tabs corresponding with the number of pages that the report is separated into. The Header Details will include the same information that is included in the header of the HTML output. This includes the general information, estimate attribute, land base, filters, temporal basis, variables, selected analyses, and analysis datasets (Figure 2-29).

The Summary Report shows the estimates, non-zero plots, domain plots, sampling error percent, sampling error total, variance, lower and upper bounds with a 68% CI, and the total (Figure 2-30).

The Summary Attribute shows the attributes associated with the estimates (Figure 2-31).

A		B
1	General Information	
2	Title	Report for Documentation
3	Description	Area of forest land by owner class and reserved status
4	Sampling Error Type	post-stratification
5	Show Subtotals	Y
6	Show Confidence Intervals	N
7	Confidence Interval	68%
8	Hide Empty Rows	N
9	Report Created	02/04/21 03:26 AM (UTC-8)
10	Report Created By	JoeForester
11	Note	
12	Method	The Enhanced Forest Inventory and Analysis Program - Nation
13	ATIM Mode	Static
14		
15	Estimate Attribute	
16	Description	Sampled population area (acres)
17		
18	Land Base	Forest land
19	Filters	
20	Description	Value
21	Land use - major	Accessible forest land
22		
23	Land Base	Forest land
24	Circle Center Latitude	None
25	Circle Center Longitude	None
26	Circle Radius	None
27	Variables	
28	Variable	Table Name
29	Row	SAMP_SUBUNIT_TREE
30	Column	SAMP_SUBUNIT_TREE
31		
32	Selected Analyses	
33	ARIZONA 2015: ALL AREA, CURRENT AREA, CURRENT VOLUME	DATIM
34		
35	Analysis Dataset(s)	
36	041501: ARIZONA 2015: 2006-2015: CURRENT AREA, CURRENT VOLUME	

Figure 2-29. The ATIM Static Mode Excel Output Results with the header details shown.

	A	B	C	D
1	Report for Documentation			
2	02/04/2021			
3				
4		Non Zero Plots	Domain Plots	Sampling Error Perc
5	National Forest lands administered by USFS			
6	National Forest lands administered by USFS / Not reserved from wood production	1,178	1178	2.22
7	National Forest lands administered by USFS / Reserved from wood production	111	111	9.44
8	Row Total	1,289	1289	2.06
9				
10	National Park Service			
11	National Park Service / Reserved from wood production	63	63	12.71
12	Row Total	63	63	12.71
13				
14	Bureau of Land Management			
15	Bureau of Land Management / Not reserved from wood production	144	144	8.19
16	Bureau of Land Management / Reserved from wood production	102	102	9.42
17	Row Total	246	246	5.83
18				
19	United States Fish and Wildlife Service			
20	United States Fish and Wildlife Service / Reserved from wood production	13	13	29.07
21	Row Total	13	13	29.07
22				
23	Department of Defense/Energy			
24	Department of Defense/Energy / Not reserved from wood production	11	11	30.97
25	Row Total	11	11	30.97
26				
27	Other Federal			
28	Other Federal / Not reserved from wood production	1	1	100.34
29	Row Total	1	1	100.34
30				
31	State lands			
32	State lands / Not reserved from wood production	277	277	6.02
33	Row Total	277	277	6.02
34				
35	Local (County, Municipal, etc.)			
36	Local (County, Municipal, etc.) / Not reserved from wood production	9	9	36.91

Figure 2-30. The ATIM Static Mode Excel Output Results with the Summary Report 1 shown.

	A	B	C	D
1	Report for Documentation			
2	02/04/2021			
3				
4	Group	Not reserved from wood production	Reserved from wood production	Total
5	National Forest lands administered by USFS	6,898,018.00000	647,100.00000	7,545,118.00000
6	National Park Service		369,501.00000	369,501.00000
7	Bureau of Land Management	816,133.00000	582,272.00000	1,398,405.00000
8	United States Fish and Wildlife Service		84,539.00000	84,539.00000
9	Department of Defense/Energy	61,035.00000		61,035.00000
10	Other Federal	6,213.00000		6,213.00000
11	State lands	1,628,597.00000		1,628,597.00000
12	Local (County, Municipal, etc.)	53,123.00000		53,123.00000
13	Undifferentiated private	7,343,950.00000		7,343,950.00000
14				
15	Totals	16,807,069.00000	1,683,411.00000	18,490,480.00000
16				
17	Suggested Citation:	Forest Inventory and Analysis. Design and Analysis Toolkit for Inventory and Monitoring w		
18				

Figure 2-31. The ATIM Static Mode Excel Output Results with the Summary Attributes 1 shown.

The XML report allows users to view and save the [ATIM](#)-encoding portion of the report contents (Figure 2-32).

```

XML Report Viewer

Design and Analysis Toolkit for Inventory and Monitoring

<Data xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlVersion="0">
  <Page domain_plots="-" non_zero_plots="3205" ord="1" p0="--null--" sampling_error="197186.926716694" sampling_error_percent="1.0664240956365234"
  total="18490479.3058898" total_denom="0" total_ratio="0" variance="38882684067.97477">
    <Row domain_plots="0" non_zero_plots="0" ord="9999" r0="COL_SUBTOTAL" sampling_error="0" sampling_error_percent="0" total="0" total_denom="0" total_plots="0"
    total_ratio="0" variance="0">
      <Column c0="Not reserved" non_zero_plots="2916" ord="1" sampling_error="200791.048182066" sampling_error_percent="1.1946821496142925" total="16807068.578608293"
      value_denom="0" value_ratio="0" variance="40317045030.0527">
        1.6807068578608293E7
      </Column>
      <Column c0="Reserved" non_zero_plots="289" ord="2" sampling_error="94002.0486619491" sampling_error_percent="5.5840233841059872" total="1683410.727281526"
      value_denom="0" value_ratio="0" variance="8836385152.64344">
        1683410.727281526
      </Column>
    </Row>
    <Row domain_plots="-" non_zero_plots="1289" ord="1" r0="National Forest" sampling_error="155144.830019733" sampling_error_percent="2.056227708272738"
    total="7545118.892996697" total_denom="0" total_ratio="0" variance="24069918281.85199">
      <Column c0="Not reserved" non_zero_plots="1178" ord="1" sampling_error="153024.9200391" sampling_error_percent="2.2183894015680532" total="6898018.892938089"
      value_denom="0" value_ratio="0" variance="23416626152.973106">
        6898018.892938089
      </Column>
      <Column c0="Reserved" non_zero_plots="111" ord="2" sampling_error="61117.997358134" sampling_error_percent="9.44490764218805" total="647100.000058604"
      value_denom="0" value_ratio="0" variance="3735409601.0688705">
    
```

Figure 2-32. The ATIM XML Report Viewer.

The HTML report output opens the Estimate Report Viewer which includes the metadata report information, estimate table, graphs, maps, non-Zero Plots table,

and references, notes, and suggested citation sections for your report (Figure 2-33).

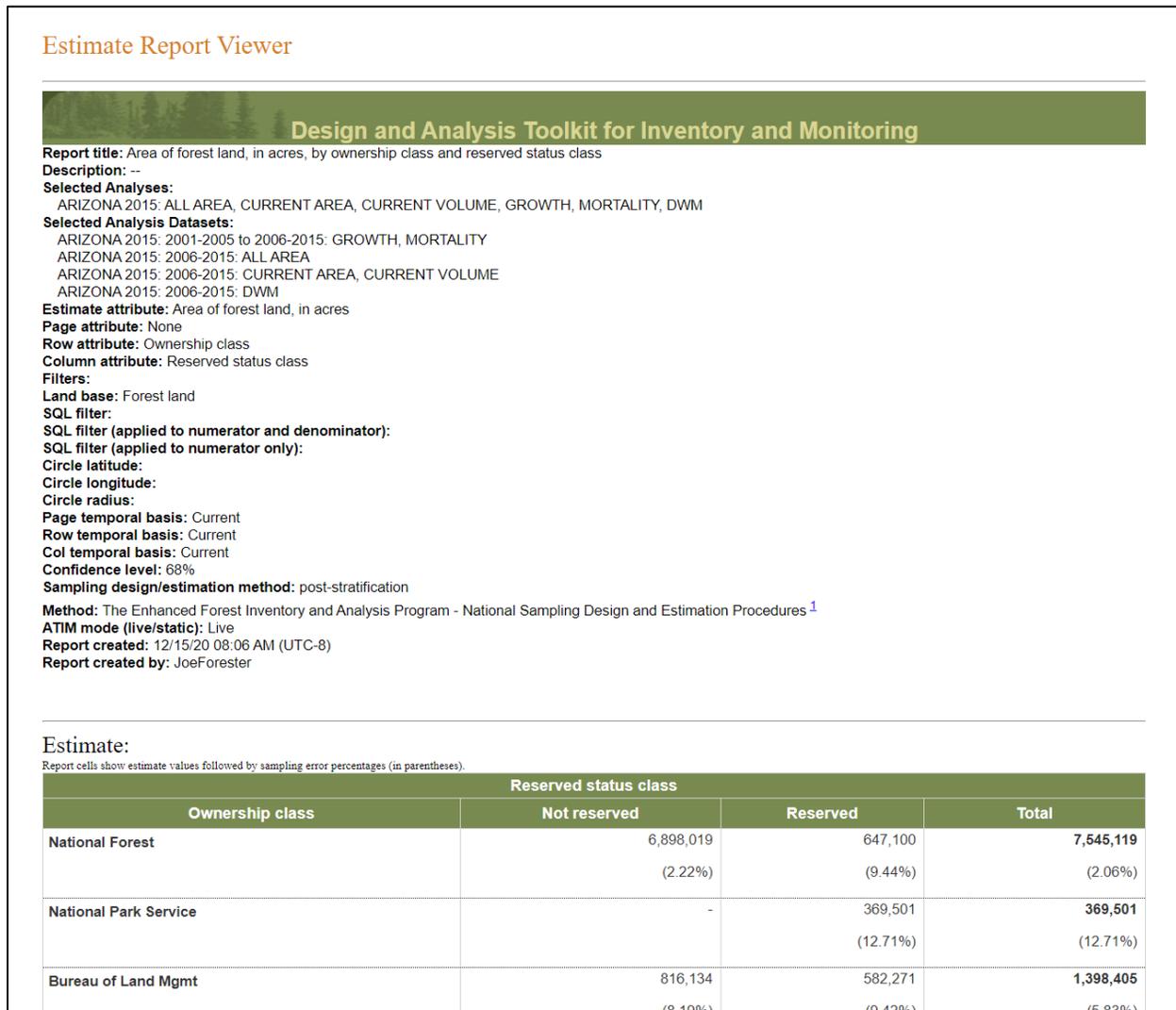


Figure 2-33. The ATIM Static Mode HTML Report Output.

Custom Report Manager

In the Custom Report Manager, you can manage your custom reports, custom reports shared with you, and your public reports. You can change the information contained in the reports and share them with an individual or a team. You must be logged in to access this feature.

My Custom Reports

In the **My Custom Reports** tab, you can access custom reports you own to either select an analysis to run the selected report against or edit, delete, or share with others.

To modify a custom report, select a custom report in the Select a Custom Report section ([Figure 2-34, #1](#)). In the My Custom Reports section ([Figure 2-34, #2](#)), you can edit the title and description, view the type of report, analysis, estimate, the creator, date created, the user who last modified the report, the date it was last modified, and if the report is public or private. If you wish to select an analysis to run against the selected report, choose the **Select Analysis** button. If you wish to edit the selected report in the ATIM Custom Report Wizard, select **Edit**. If you wish to run the selected report in the ATIM Report Wizard, select **Run**. If you have made changes to the report that you wish to save, select **Save**. If you wish to delete the report, select **Delete**.

To share a custom report with a member, view the Custom Report Shared with Users section ([Figure 2-34, #3](#)). Here you can enter in a member's email or username then choose the individual's role: Read Only or Read Write, then select **Add**.

To share a custom report with a team, view the Custom Report Shared with Teams section ([Figure 2-34, #4](#)). Here you will see what teams the report is shared with, as well as the members within that team. To share the report with a team, select the team using the dropdown menu under Add Team, then select **Add**.

ATIM Custom Report Manager

Return To ATIM Home Page

My Custom Reports
Custom Reports Shared With Me
Public Reports

1 Select a Custom Report

1A test 12345
 alalalal
 drgweg
 replication test #2876
 Report for Documentation
 test 2-3-2020
 test for nate
 Testing GitHub 1894 Individual
 Testing GitHub 1894 team
 UG Testing

2 My Custom Reports: These are custom reports that you own. You can modify them, delete them, or share them with others.

Title:

Description:

Type: Standard Report

Analysis: Arizona 2006-2015

Estimate: Sampled population area

Created By: JoeForester

Date Created:

Last Modified By: LOGIN_DATIM

Date Modified: 11/25/2019 11:23

Is Public Report:

Select Analysis
Edit
Run
Save
Delete

4 Custom Report Shared With Teams: These are the teams that this report has been shared with. Members of the selected teams are also displayed.

Team	Action

Team Member	Role	Toggle Role	Action

Add Team

Add

3 Custom Report Shared With Users: These are the individual users that this report has been shared with.

User	Role	Toggle Role	Action
theadmin@admin.com	Read Write	☰	✖

Add Member:

Read Only
▼

Add

Figure 2-34. ATIM Custom Report Manager - My Custom Reports.

Custom Reports Shared With Me

In the Custom Reports Shared With Me tab view reports shared with you, run and edit reports, and create custom reports using shared reports. You can select reports shared with you in the Select a Shared Report section (Figure 2-35, #1). To view the title, description, type, analysis, estimate, owner, who created the report, date created, who the analyses was last modified by, date modified, and your role view the Shared Custom Reports section (Figure 2-35, #2). If you wish to view and run the report, select **Run**. If you wish to create your own editable copy of a custom report, select the report from the Select a Shared Report section, enter in a title in the **Title for Your Copy** text box, then select **Create Custom Report**. The page will automatically reload, and the new custom report will appear in the My Custom Reports tab.

The screenshot displays the ATIM Custom Report Manager interface. At the top, there is a header with the title "ATIM Custom Report Manager" and a "Return To ATIM Home Page" button. Below the header, there are three tabs: "My Custom Reports", "Custom Reports Shared With Me", and "Public Reports". The "Custom Reports Shared With Me" tab is active.

On the left side, there is a section titled "Select a Shared Report" (marked with a circled 1). It contains a list of reports: "stan 2545 1", "test1587", "test222222222", and "WS SIT report". The "WS SIT report" is highlighted in blue.

On the right side, there is a section titled "Shared Custom Reports: These are custom reports that someone else owns. If you have been assigned the 'Modify' role to this custom report, you can update it. Otherwise, you can only view this custom report." (marked with a circled 2). This section displays the following details for the selected report:

Title:	WS SIT report
Description:	WS_SIT_REPORT_SHARE_TEST
Type:	Standard Report
Analysis:	Delaware 2010-2015
Estimate:	Sampled population area
Owner:	john.bertini@usda.gov
Created By:	john.bertini@usda.gov
Date Created:	
Last Modified By:	LOGIN_DATIM
Date Modified:	3/9/2020 12:30
Role:	RO

Below the details, there is a "Run" button. Underneath, there is a section that says "Or, you can create your own editable copy of this custom report." followed by a "Title for Your Copy:" label and an empty text input field. At the bottom of this section is a "Create Custom Report" button.

Figure 2-35. ATIM Custom Report Manager - Custom Report Shared with Me.

Public Reports

In the Public Reports tab, you can view reports that administrative users have made public. In the Select a Public Report section (Figure 2-36, #1) you can select public reports to view information and data. In the Public Reports section (Figure 2-36, #2) you can view the title, description, type, analysis, estimate, owner, who created the report, date created, who the analyses was last modified by, and the date modified. If you wish to create your own editable copy of a custom report, select the report from the Select a Public Report section, enter in a title in the **Title for Your Copy** text box, then select **Create Custom Report**. The page will automatically reload and the new custom report will appear in the My Custom Reports tab.

ATIM Custom Report Manager

Return To ATIM Home Page

My Custom Reports Custom Reports Shared With Me **Public Reports**

1 Select a Public Report

- #2245 Area of forest land by f
- 123abc
- 1A JRB SE TEST
- 1A jrb test 5607
- Area/Volume ratio test
- Customized Copy of jkl
- Customized Copy of Report-
- Customized Copy of Report-
- Customized Copy of Report-123
- Customized Copy of Rert-123
- Gross cf volume
- patricia public test
- Report for Documentation
- RO access
- Sharing Test 7/17 JRB
- SIT area report 4-13-20
- stan 2545 1
- test #1913
- test 1732 222
- test 1732 5
- test issue #2307
- test issue 2307 live
- test1587
- test1587-1
- test222222222
- test888
- testing 2-25
- Testing 2253
- Testing logged-in save
- TestingSharing9-9-19RO
- Volume of coarse woody debris
- WS SIT report**

2 **Public Reports:** Public Custom Reports are special custom reports that an admin feels might be useful as the framework for a new custom report. You make a copy of this custom report that you then own, after which you can view, modify, delete, or share your new custom report.

Title: WS SIT report

Description: WS_SIT_REPORT_SHARE_TEST

Type: Standard Report

Analysis: Delaware 2010-2015

Estimate: Sampled population area

Owner: john.bertini@usda.gov

Created By: john.bertini@usda.gov

Date Created:

Last Modified By: LOGIN_DATIM

Date Modified: 3/9/2020 12:30

Or, you can create your own editable copy of this custom report.

Title for Your Copy:

Create Custom Report

Figure 2-36. ATIM Custom Report Manager - Public Reports.

Custom Analysis Manager

The Custom Analysis Manager follows a similar flow as the Custom Report Manager. In the Custom Analysis Manager you can manage your custom analyses, custom analyses shared with you, and your public analyses. You can view the information contained in the analyses and share them with a team or individual. You must be logged in to access this feature.

My Custom Analyses

In the My Custom Analyses tab, you can select a Custom Analysis you own to modify, delete, or share with others.

To modify a custom analysis, select a Custom Analysis in the Select a Custom Analysis section (Figure 2-37, #1). In the My Custom Analyses section (Figure 2-37, #2), you can edit the name and description, view the owner, the creator, the load status, date created, the user who last modified the analysis, the date it was last modified, and if the analysis is public or private. If you have made changes to the analysis that you wish to save, select **Save**. If you wish to delete the analysis, select **Delete**. If you wish to export the analysis as a CSV file, select **Export**. If you wish to view the data, select **View Data**, this will open a pop-up displaying any datasets and SIT attributes within the selected custom analysis.

To share a custom analysis with a member, view the Custom Analysis Shared with Users section (Figure 2-37, #3). Here you can enter in a member's email or username then choose the individual's role: Read Only or Read Write, then select **Add**.

To share a custom analysis with a team, view the Custom Analysis Shared with Teams section (Figure 2-37, #4). Here you will see what teams the analysis is shared with, as well as the members within that team. To share the analysis with a team, select the team using the dropdown menu under **Add Team**, then select **Add**.

ATIM Custom Analysis Manager

Return To ATIM Home Page

My Custom Analyses
Custom Analyses Shared With Me
Public Analyses

1 Select a Custom Analysis

x 0000 2572
00000 test 2572
10/11/2019 EF
10:25
10-10-19 EF
1A JRB notification test
1A JRB notification test #9000
1A JRB notification test #9001
▲ aewrgasdjf sdf
Analysis of 3 states: CA, OR, WA
Analysis of Two States
apples and oranges

2 My Custom Analyses: These are custom analyses that you own. You can modify them, delete them, or share them with others.

Name:

Description:

Owner: Joe Forester

Created By: Joe Forester

Load Status: Loaded

Date Created: 10/10/2019 9:12 CT

User last Modified By: Joe Forester

Date Modified: 11/5/2020 11:19 CT

Is Public Analysis: No

Save
Delete
Export
View Data

4 Custom Analysis Shared With Teams: These are the teams that this analysis has been shared with. Members of the selected teams are also displayed.

Team	Action

Team Member	Role	Toggle Role	Action

Add Team

Add

3 Custom Analysis Shared With Users: These are the individual users that this analysis has been shared with.

User	Role	Toggle Role	Action

Add Members:

Read Only
Add

Figure 2-37. ATIM Custom Analysis Manager - My Custom Analyses.

Custom Analyses Shared with Me

In the Custom Analyses Shared With Me tab view analyses shared with you and view data for the analyses. You can select analyses shared with you in the Select a Shared Analyses section (Figure 2-38, #1). To view the title, description, owner, who created the analyses, date created, who the analyses was last modified by, date modified, and your role view the Shared Custom Analyses section (Figure 2-38, #2). If you wish to export the analysis as a CSV file, select **Export**. If you wish to view the data, select **View Data**, this will open a pop-up displaying any datasets and SIT attributes within the selected custom analysis.

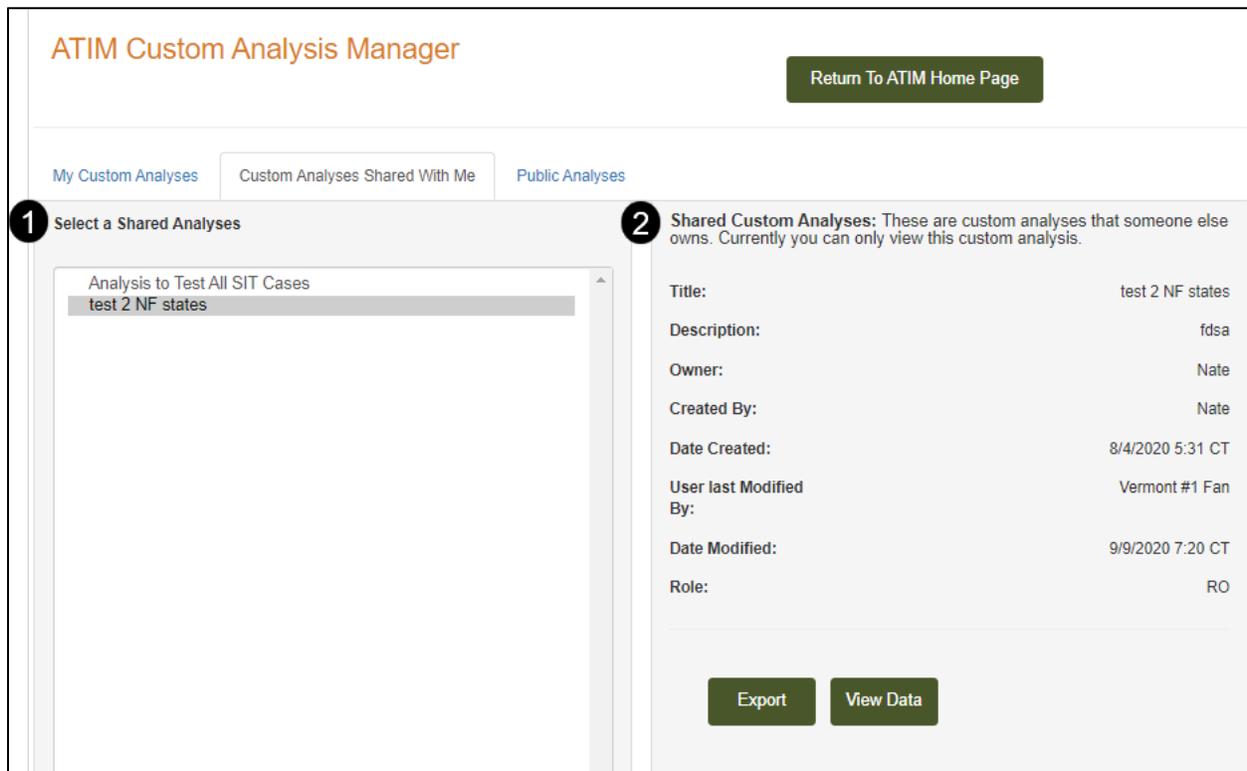


Figure 2-38. ATIM Custom Analysis Manager - Custom Analyses Shared with Me.

Public Analyses

In the Public Analyses tab, you can view analyses that administrative users have made public. In the Select a Public Analyses section (Figure 2-39, #1) you can select public analyses to view information and data. In the Public Analyses section (Figure 2-39, #2) you can view the title, description, owner, who created the analyses, date created, the load status, who the analyses were last modified by, and the date modified. If you wish to export the analysis as a CSV file, select

Export. If you wish to view the data, select **View Data**, this will open a pop-up displaying any datasets and SIT attributes within the selected custom analysis.

ATIM Custom Analysis Manager

[Return To ATIM Home Page](#)

My Custom Analyses Custom Analyses Shared With Me **Public Analyses**

1 Select a Public Analyses

- × 10/11/2019 EF
- 1ColoradoTest
- 2376test
- Analysis of 3 states: CA, OR, WA**
- Analysis of Two States
- apples and oranges
- △ apples are usually red
- Arizona speed test
- Copy Indiana 2010-2015 8-5-2019 MS
- △ Create Analysis Test2
- Create new Connecticut test forDCS2
- Indiana Dev Copy Test
- Manti-LaSal NF ceu test
- New Analysis 1
- △ patricia test 12-30 change 234
- patricia test 12-30 dwm cwd 1
- patricia test 12-30 dwm fwd md
- patricia test 12-30 dwm fwd sm
- patricia test 12-30 dwm pile
- patricia test 12-30 growth
- PLS WRK FEB 5
- RC SIT Attribute Testing
- test 2 NF states
- Test 218 FVS Compute
- Test 218 FVS Stand Veg
- test 2693
- test 3 NF states
- Test AR 2015 mike 7-9
- test CO 2015
- Test Copy analysis2
- Test Issue 218
- △ test ok2delete
- × test2
- test3333
- test8-21
- × Testing
- Testing 1991 EF 3-5-2020
- △ testing 4-23-1
- △ testing 4-23-10

2 Public Analyses: Public Custom Analyses are special custom analyses that an admin feels might be useful as the framework for a new custom analyses.

Title: Analysis of 3 states: CA, OR, WA

Description: Analysis of 3 states: CA, OR, WA

Owner: Joe Forester

Created By: Joe Forester

Date Created: 8/20/2019 14:15 CT

Load Status: Loaded

User last Modified By: This analysis has not been modified

Date Modified: 9/2/2020 8:50 CT

[Export](#) [View Data](#)

Figure 2-39. ATIM Custom Analysis Manager - Public Analyses.

Creating a New Analysis (Administrative Users only)

Administrative users can create new analyses in ATIM. When you create new analyses, it will be static. When an administrative user creates a new analysis in ATIM, one or more resource inventory datasets (available from the DATIM data

mart as DATIM datasets) are selected for a population of interest. These datasets provide the foundation of ATIM analyses.

In this section, you will learn how to bundle DATIM datasets, how to name and describe it, how to save it to the DATIM data mart, and lastly, how to add spatial attributes to complete bundling the ATIM analysis you want to create.

Step 1: Welcome!

After logging into DATIM, select the **Create New Analysis** button on the **ATIM Welcome** page (Figure 2-40).

Analysis Tool for Inventory and Monitoring (ATIM)

Welcome, Joe Forester

ATIM is used for analyzing Forest Service resource inventory and monitoring data. The reports created in ATIM provide unbiased, sample-based estimates of population parameters and associated sampling errors for various natural resource inventories.

With ATIM, you can run any of the standard reports for a given population of interest and inventory year (an analysis dataset). You can also create custom reports based on your selected criteria. Administrative users have the additional ability to create new analysis datasets for use in reporting.

To get started, select one of the tasks below.

Reports: Live Analyses	<p>Create Live Reports ⓘ</p> <p>This report wizard will guide you through the process of creating "live" reports using FIADB data directly.</p>
Reports: Static Analyses	<p>Create Reports Using Static Analyses ⓘ</p> <p>This report wizard will guide you through the process of creating reports using "static" analysis datasets, as required by the National Forest System (NFS) and any other users who require a non-changing dataset that they control. These datasets will not update automatically when FIADB is updated.</p>
Create New Analysis	<p>Create a New Analysis Dataset (Administrative Users Only)</p> <p>If you are an administrative user and want to create a new analysis dataset for a population of interest and inventory year, click the Create New Analysis button to begin.</p>
Custom Report Manager	<p>Custom Report Manager (Registered Users Only)</p> <p>If you are a registered user you can manage your custom reports, see the reports that are shared with you, and view all public custom reports. Click the Custom Report Manager button to begin.</p>
Custom Analysis Manager	<p>Custom Analysis Manager (Registered Users Only)</p> <p>If you are a registered user you can manage your custom analyses, see the analyses that are shared with you, and view all public custom analyses. Click the Custom Analysis Manager button to begin.</p>

Figure 2-40. The Create New Analysis button on the ATIM Welcome page.

Step 2: Adding Analysis Details

On the Create New ATIM Analysis page you will enter an email ([Figure 2-41, #1](#)) that you wish to receive notifications from DATIM concerning the progress of the creation of your new analysis. Next, enter a name for the analysis in the **Analysis Name** textbox ([Figure 2-41, #2](#)). The recommended format for naming analyses is to provide the full state name followed by the span of inventory years for the selected dataset, for example, Oregon 2006-2015. Note that the title has a limit of 30 characters or less and special characters are not allowed.

After adding the title, enter a description for the analysis ([Figure 2-41, #3](#)). The recommended format for describing an analysis is to provide the state and most recent inventory year followed by the summary attributes included in the data, for example, Oregon 2015: All Area, Current Area, Current Volume. Note that the description has a limit of 255 characters, with the remaining number of characters showing beneath the description textbox ([Figure 2-41, #4](#)). Also, special characters are not allowed in the description.

Beneath the title and description, designate the analysis as public or private ([Figure 2-41, #5](#)). You also have the option of using custom estimation units by checking the box next to Use Custom Estimation Unit (beta) ([Figure 2-41, #6](#)). Checking this box will open a form that must be filled out in order to use the custom estimation units. The information required on the form include the custom estimate dataset name ([Figure 2-41, #7](#)), the unit name ([Figure 2-41, #8](#)), the unit area ([Figure 2-41, #9](#)), and the unit 4-digit forest code ([Figure 2-41, #10](#)). Note that if you choose to use a custom estimation unit you must select a dataset from the National Forest selection.

User Alert:

- Please note: Selecting datasets via the National Forest listing will apply a region and forest code filter based on ALP_ADFORCD from the FIADB.

Create New ATIM Analysis

▶ Help

- 1** Email
- 2** Analysis Name
Special characters not allowed
- 3** Description
Special characters not allowed
- 4** 255 characters remaining
- 5** Public Private
- 6** Use Custom Estimation Unit (beta) i

- 7** Custom Estimate Dataset Name: i
- 8** Custom Estimation Unit Name: i
- 9** Custom Estimation Unit Area: i
- 10** Custom Estimation Unit 4-digit forest code: i

Create Analysis

Figure 2-41. The Create New ATIM Analysis page showing the details that need added.

Step 3: Selecting DATIM Datasets

DATIM datasets can be added by State selection (Figure 2-42, #1) or National Forest (Figure 2-42, #2) selection by choosing the box next to the desired selection type. Note that creating an analysis by selecting a dataset from the National Forest selection does not ensure that the analysis will be restricted to only National Forest ownership.

The selected analyses will show in the Selected Dataset Summaries box (Figure 2-42, #3). Selecting the arrowhead next to the dataset name will allow you to view information about the dataset, such as the CN number, description, estimation scope, load date, census eater sampled, owner, if it is public, and the status.

Select the **Create Analysis** button to complete creating a new ATIM analysis. Note that once you submit a new analysis you will receive several email

notifications from DATIM. These include notifications that the request was received, the request is in progress, and the analysis creation is complete and ready for use. The custom analysis name will be shown in the body of the email notification.

Select Datasets by State or National Forest

- States
- National Forests

Selected Dataset Summaries

▼ 041501: ARIZONA 2015: 2006-2015: CURRENT AREA, CURRENT VOLUME [Remove](#)

CN:	389710594489998
Description:	041501: ARIZONA 2015: 2006-2015: CURRENT AREA, CURRENT VOLUME
Estimation Scope:	SAMP AREA
Load Date:	02/22/2021 08:08 AM
Census Water Sampled:	Yes
Owner:	DATIM
Public:	No
Status:	Loaded

[Remove All](#)

[Create Analysis](#)

Figure 2-42. The Create New ATIM Analysis page showing the Dataset Selection Options.

Chapter 3: DTIM

The **Design Tool for Inventory and Monitoring (DTIM)** supports natural resource managers in designing resource inventory and monitoring plans that address their information needs that are both statistically defensible and cost efficient. DTIM provides a wide selection of inventory and monitoring objectives, questions, and metrics defined by the U.S. Department of Agriculture (USDA) Forest Service (FS) and the FS National Forest Regions.

Introduction to DTIM

DTIM assists with designing and planning resource inventory and forest planning projects by navigating users through a number of steps. The steps include choosing a base template, identifying objectives, questions, and metrics to help answer their questions about the project. Base templates serve as a starting point by providing predetermined sets of selectable objectives and questions. The range of base templates currently available is based on specific needs and are focused on the National Forest Management Act (NFMA) 2012 Planning Rule, Food and Agriculture Organization of the United Nations (FAO) Forestry, National Forest Inventory and Analysis (FIA) plot intensification, the National Forest System (NFS) Monitoring and Evaluation Framework (MEF, also referenced as M&E), and the Mark Twain National Forest Monitoring Guide. Other templates, including international templates, are being developed with alternative sets of objectives, questions, metrics, and calculations. Advanced users can also create their own custom DTIM templates to serve other management needs.

Available Objectives are unique and based on the base templates. The objectives help give the plan direction and must be selected to include in the project. In similar fashion, the Available Questions are also based on the base template selected and must be associated with an objective. Users are also able to create custom objectives and custom questions that better fit their needs. Next, DTIM allows users to indicate the attributes, or metrics, required to answer the questions. Existing data are then evaluated to determine whether the data are adequate to meet the information needs. If additional data are needed to

meet precision requirements, a plan is designed to intensify an existing inventory or start a new one.

Note that when using the [DTIM project](#) creation wizard, users are encouraged to log in prior to working in [DTIM](#) so that they can save their progress.

Getting Started with DTIM

To access the DTIM Wizard, select either the **DTIM link** from the DATIM navigation menu or the **Design** button on the DATIM Home page ([Figure 3-1](#)).

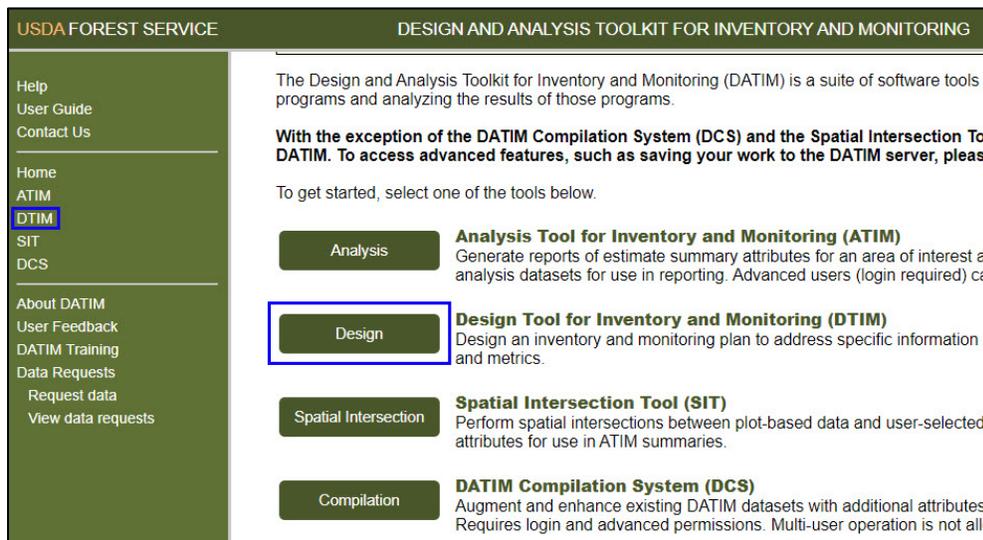


Figure 3-1. Accessing DTIM from the DATIM navigation menu and DATIM home page.

Step 1: Welcome

Step 1 of the wizard is the DTIM Welcome page ([Figure 3-2](#)), which contains a brief introduction to the DTIM wizard tool and its intended uses. Users also have access to the **Get Project Link** ([Figure 3-2, #1](#)) and the **DTIM Tools** ([Figure 3-2, #2](#)).

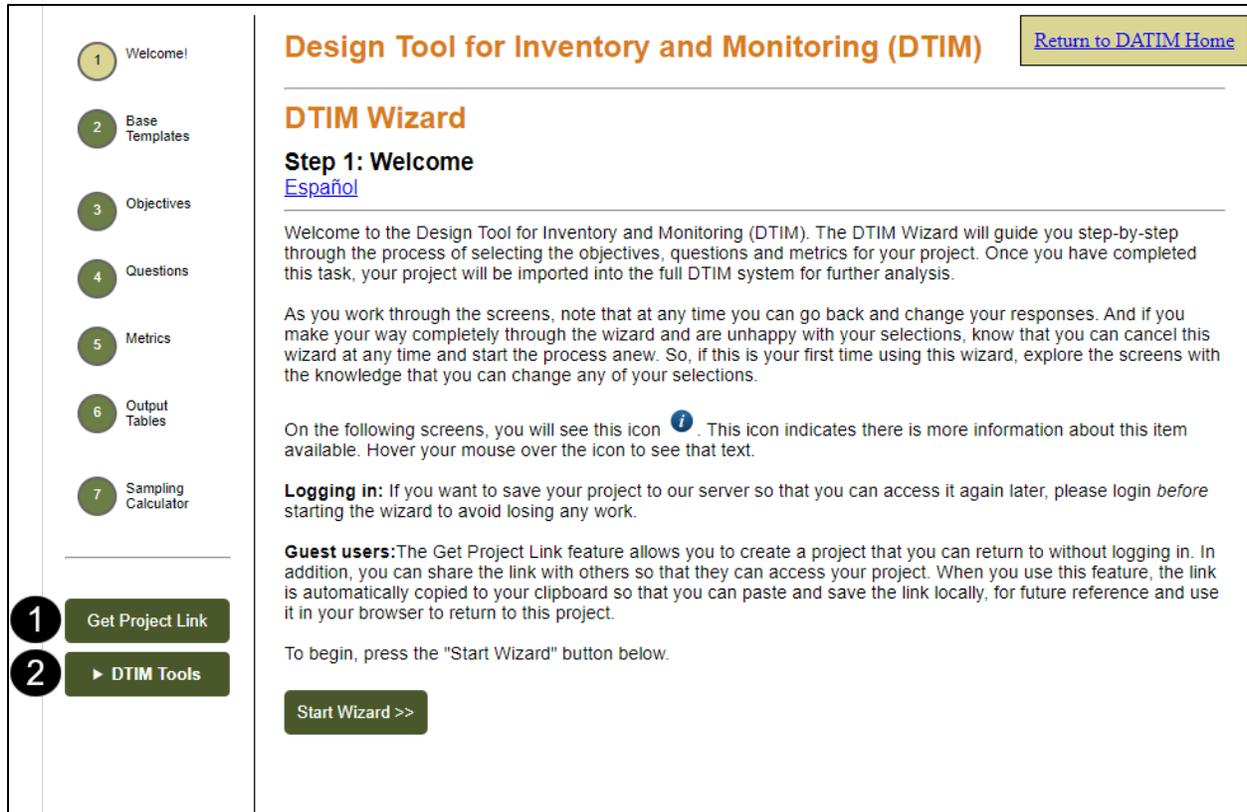


Figure 3-2. DTIM Wizard - Guest View: Welcome and Get Project Link.

Using the Get Project Link

As you work through the wizard to design your project(s), the **Get Project Link** (Figure 3-3) is available below the DTIM wizard steps.



Figure 3-3. Get Project Link.

Once you click on the **Get Project Link** a popup window will open showing you your projects link (Figure 3-4). This feature allows Guest Users to return to edit and finish a project that they were working on, or to share the report with other users without saving it to the DATIM system.

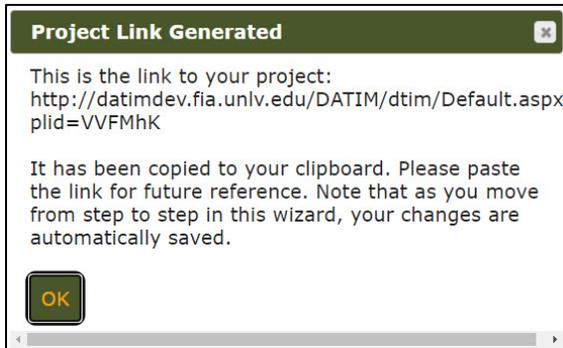


Figure 3-4. Get Project link generated.

Ensure to have started creating a project before attempting the Get Project Link, otherwise you will receive a progression error (Figure 3-5) since there is nothing for the link to load.

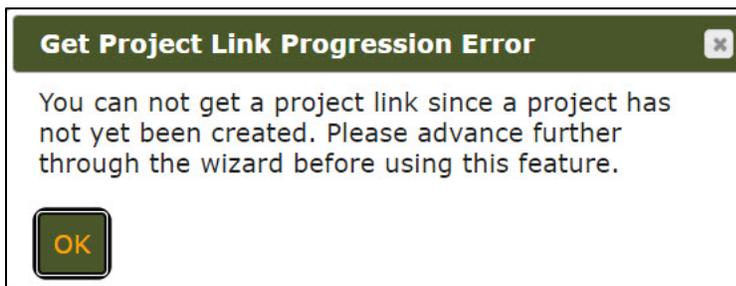


Figure 3-5. Progression Error of Get Project Link.

Note that the Get Project Link is replaced with the Save button (Figure 3-6) upon user login.

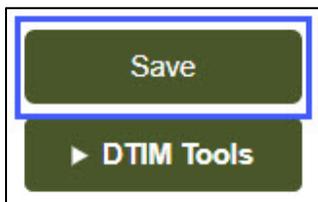


Figure 3-6. Save button replaces the Get Project Link.

DTIM Tools

The **DTIM Tools** drop down menu offers three features, two of which are only available to logged in users (Figure 3-7). You must be logged in to access the Report Manager and Project Manager tools. To access the

DTIM Administrative Tool (DAT), you must have administrative privileges. For more information on each of the DTIM tools, see the **DTIM Tools: Report Manager**, Using the **Project Manager**, and **DTIM Tools: DTIM Administrative Tool** sections.



Figure 3-7. DTIM Tools.

Logging in Mid-Wizard

While it is recommended that you log into the DTIM Wizard prior to creating the project to prevent any data loss, you are allowed to log into the DATIM system even if you're in the middle of a DTIM project creation step. Note that if you do log in while creating the project, you will be redirected from the progress step you're on to **Step 1: Welcome** of the DTIM wizard.

Moreover, if you decide to log into the system after you have started creating a DTIM report, you can do so and you will be prompted the question: “Before logging in, you were working on a project. Would you like to save and load that project?” (Figure 3-8). To save your project, select “**OK**” on the pop-up question.

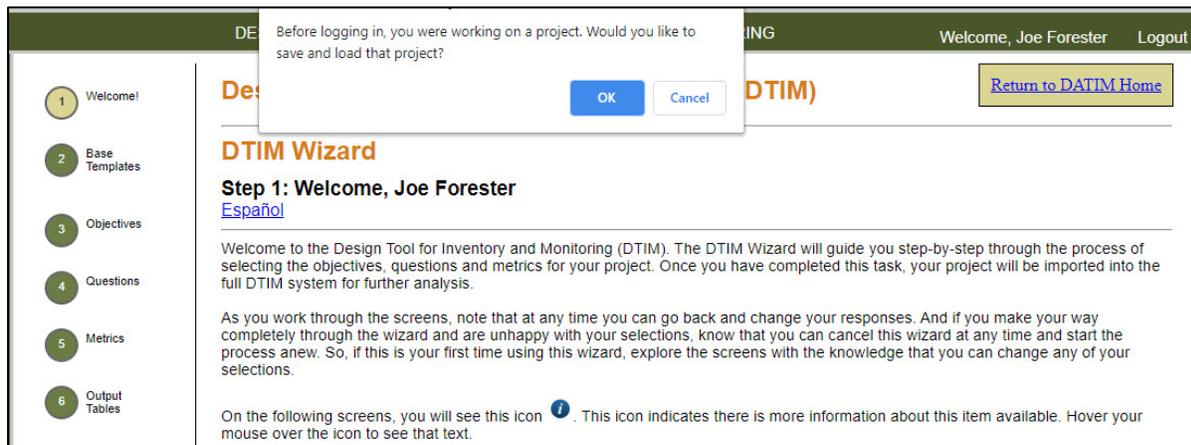


Figure 3-8. Prompted question from logging in during mid-project creation.

This will open a dialog box (Figure 3-9) where you will enter the project name, project description, the associated region, and associated national forest. Select **Save** to finish saving the project or **Cancel** to start a new project. Either choice will let you continue the log in process, and you will be able to continue using DTIM from the **Step 1: Welcome page**.

The screenshot shows the 'Save Project' dialog box in the DTIM application. The dialog box is titled 'Save Project' and contains the following fields and buttons:

- Project Name:** A text input field.
- Project Description:** A large text area for entering the project description.
- Region:** A dropdown menu currently set to 'None'.
- National Forest:** A dropdown menu currently set to 'None'.
- Buttons:** 'Save' and 'Cancel' buttons at the bottom of the dialog.

The background shows the DTIM interface with a sidebar menu on the left containing items like 'Welcome!', 'Base Templates', 'Objectives', 'Questions', 'Metrics', 'Output Tables', and 'Sampling Calculator'. The main content area on the right displays a 'Return to DATIM Home' button and some instructional text.

Figure 3-9. Save Project in DTIM.

Step 2: Selecting a Base Template

In this step, you will select a base template to use for your DTIM project. Base templates offer standard objectives, questions, and metrics (OQMs) specific to that template. When accessing **Step 2: Base Template** as a Guest User, a dialog box will popup warning you that your progress may become lost if not saved as a logged in account (Figure 3-10). You may proceed by either logging in or continuing as a guest user.

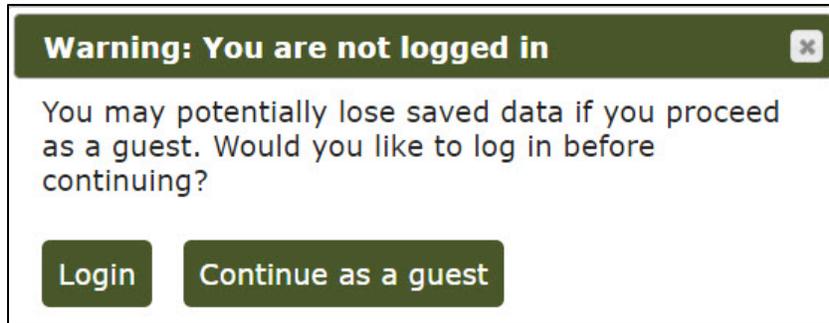


Figure 3-10. Log in warning when accessing Step 2 as Guest.

Once you arrive at the Base Template page, you can filter the base templates to view the templates associated with a given Region. To do so, select your region of interest by using the **Region** drop-down list (Figure 3-11, #1). After selecting a Base Template, you can view its metadata under the **More Information** section (Figure 3-11, #2).

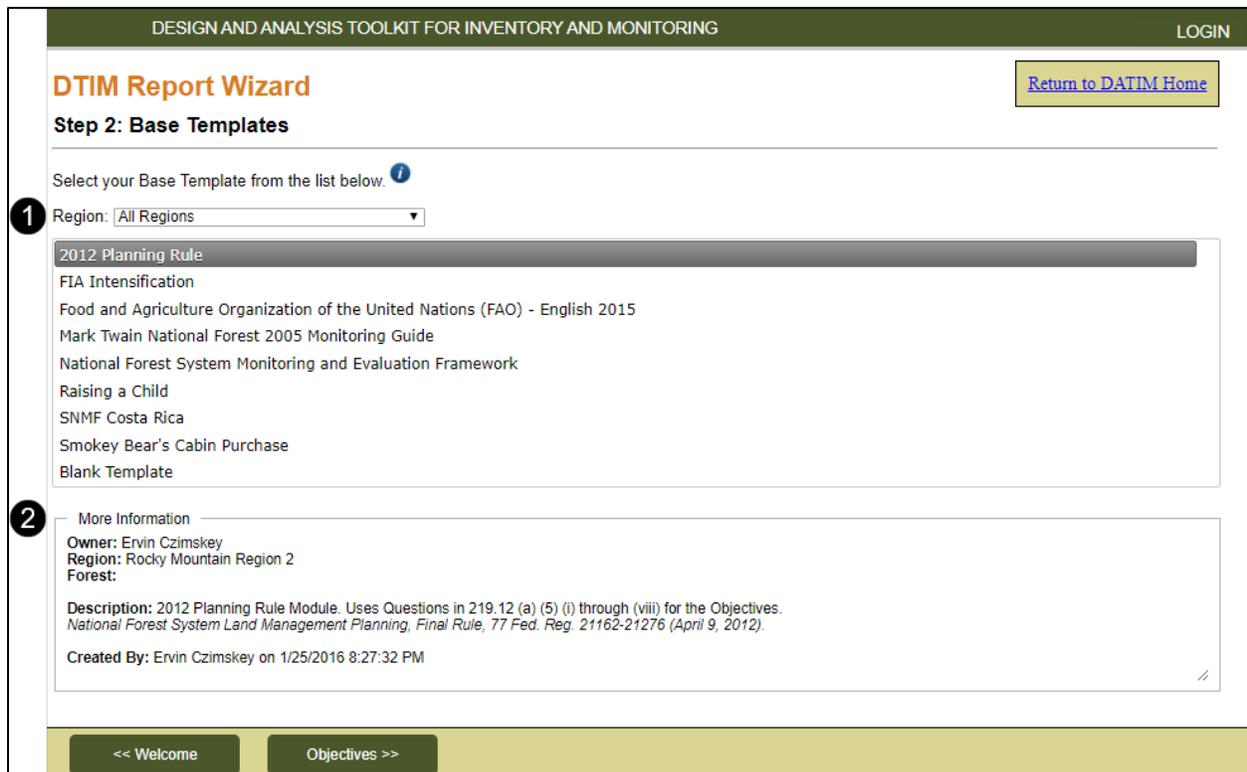


Figure 3-11. Selecting a base template.

Step 3: Selecting Objectives

In this step, you will identify the broad objectives of your monitoring plan based on desired conditions or outcomes. An objective is essentially what the user wants to learn from the report. The available objectives are unique options based on the template you have selected. You must select at least one objective in order to move onto Step 4: Metrics.

From the Objectives page, select one or more objectives from the Objectives Available list box (Figure 3-12, #1). Prioritize your objectives by dragging and dropping them to the desired order in the Objectives Selected box, positioning the highest priorities at the top of the list (Figure 3-12, #2).

DTIM Report Wizard [Return to DATIM Home](#)

Step 3: Objectives

Current Template: 2012 Planning Rule

Select your Objectives by double-clicking or dragging and dropping between lists. ?

1 Objectives Available ?

- (ii) Status of select ecological conditions including key characteristics of terrestrial and aquatic ecosystems
- (iii) Status of focal species to assess the ecological conditions under 219.9
- (iv) Status of a select set of ecological conditions required under 219.9 to contribute to the recovery of federally listed threatened and endangered species, conserve proposed and candidate species, and maintain a viable population of each species of conservation concern.
- (v) Status of visitor use, visitor satisfaction, and progress toward meeting recreation objectives.
- (vi) Measurable changes on the plan area related to climate change and other stressors that may be affecting the plan area.
- (vii) Progress toward meeting the desired conditions and objectives in the plan, including for providing multiple use opportunities.
- (viii) Effects of each management system to determine that they do not substantially and permanently impair the productivity of the land (16 U.S.C. 1604 (g)(3)(C)).

2 Objectives Selected ?

Add All
Remove All
Sort Objectives

- (i) Status of select watershed conditions

Figure 3-12. Selecting Objectives page.

You also have the option to create custom objectives. Custom objectives can be created from scratch through text entry or created from an existing objective.

Project Features: Creating New Objectives

From the Objectives page, select the **Create New Objective** link in the Project Features box at the bottom of the page (Figure 3-13) to open the New Objective window.

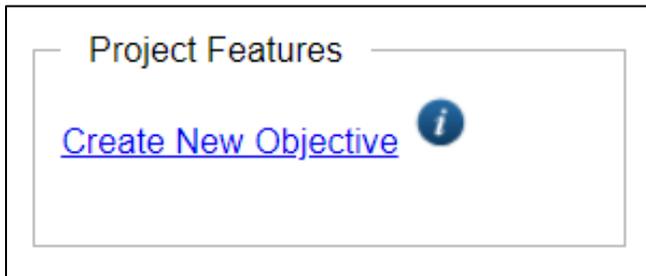


Figure 3-13. Creating New Objective link.

To create a custom objective, from scratch, type your desired objective in the textbox (Figure 3-14) and select the **Save** button.

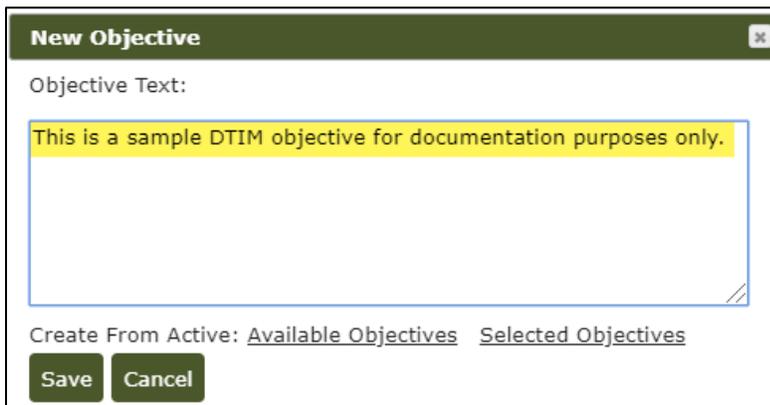


Figure 3-14. Creating a new objective modal.

To create an objective from an existing objective, you must highlight an objective from either the **Objectives Available** (Figure 3-15, #1) or the **Objectives Selected** (Figure 3-15, #2) list boxes.

DTIM Wizard [Return to DATIM Home](#)

Step 3: Objectives

Current Template: 2012 Planning Rule

Select your Objectives by **double-clicking or dragging and dropping** between lists. *i*

Objectives Available *i*

- (ii) Status of select ecological conditions including key characteristics of terrestrial and aquatic ecosystems
- (iii) Status of focal species to assess the ecological conditions under 219.9
- (iv) Status of a select set of ecological conditions required under 219.9 to contribute to the recovery of federally listed threatened and endangered species, conserve proposed and candidate species, and maintain a viable population of each species of conservation concern.
- (v) Status of visitor use, visitor satisfaction, and progress toward meeting recreation objectives.
- (vi) Measurable changes on the plan area related to climate change and other stressors that may be affecting the plan area.
- (vii) Progress toward meeting the desired conditions and objectives in the plan, including for providing multiple use opportunities.
- (viii) Effects of each management system to determine that they do not substantially and permanently impair the productivity of the land (16 U.S.C. 1604 (g)(3)(C)).

Objectives Selected *i*

Add All Remove All

Sort Objectives

- (i) Status of select watershed conditions

<< Base Templates Questions >> Run Report

Figure 3-15. Creating a new objective from an existing objective.

Next, open the **New Objective** link and select either **Available Objectives** (Figure 3-16, #1) or **Selected Objectives** (Figure 3-16, #2), depending on the location of your highlighted objective. The selected objective is then automatically copied to the text box where you can edit it.

Figure 3-16. Creating a new objective from an active Available or Selected Objective.

When you select the **Save** button, you will be returned to the Objectives page. Your new objective will already be pre-selected and available in the Objectives Selected list box.

Repeat the previous steps to add any additional custom objectives.

Project Features: Editing and Deleting Custom Objectives

After creating a custom objective, you can edit and/or delete it by selecting the **Edit/Delete Custom Objectives** link (Figure 3-17). This link and the **Associate with Questions** link are only visible after a custom objective is created.

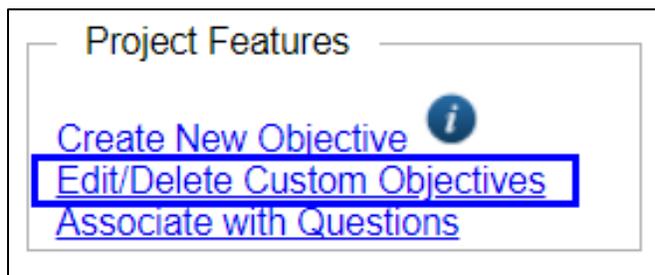


Figure 3-17. Link to editing and deleting a custom objective.

In the **Edit Custom Objective** modal window, you can modify the text of the selected objective (Figure 3-18, #1 & #2). You can also **Save** the changes or **Delete** the custom objective (Figure 3-18, #3 & #4).

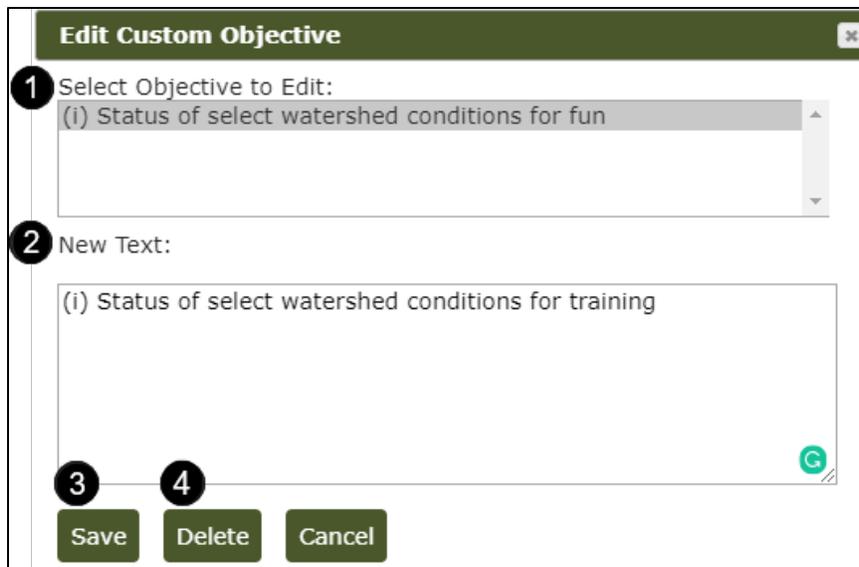


Figure 3-18. Editing a custom objective.

Project Features: Associating Objectives with Questions

After the creation of a custom objective, you can associate questions to it. If you choose to not associate questions to the new objectives, no 'Most Relevant' questions will be available in the **Step 4: Questions** step of the wizard. You will need to select the Show Least Relevant Questions link to access available questions from the Base Template.

To associate questions, select the **Associate with Questions** link ([Figure 3-19](#)).



Figure 3-19. Associate with Questions link.

Select your custom objective from the **Project Features: Associating Objectives with Questions** modal window. In the Relevancy column, expand the arrowhead to pick the relevancy for your question, options include: Most, Somewhat, and Least relevant ([Figure 3-20](#)).

Associate Custom Objectives with Questions
✕

Use this interface to indicate which questions you would like to associate with your custom objectives.

Custom Objective: (i) Status of select watershed conditions for training

Question	Indicator	Relevancy
Actions taken to combat invasive species in the plan area?	Management actions for invasive species	<div style="border: 1px solid #ccc; padding: 2px;"> Least Most Somewhat Least </div>
Are assumptions about soil productivity valid? (Validation monitoring)	Validation monitoring (Soil Quality)	<div style="border: 1px solid #ccc; padding: 2px;">Least</div>
Are assumptions about wildlife habitat and species relationships valid? (MET Species Diversity)	Validation monitoring (MET Species Diversity)	<div style="border: 1px solid #ccc; padding: 2px;">Least</div>
Are forests replacing themselves? What factors	Tree regeneration	<div style="border: 1px solid #ccc; padding: 2px;">Least</div>

Save
Cancel

Figure 3-20. Custom Question and Relevancy.

Step 4: Selecting Questions

The objective you will be selecting questions for is displayed in the Current Objective box (Figure 3-21, #1). The questions are selected in order to address each of the selected objectives. You can add a question to each objective by double-clicking or selecting and dragging a question from the Available Questions list box to the Selected Questions list box. At least one question needs to be added for each objective (Figure 3-21, #2 & #3).

Questions are organized based on their relevancy (most, somewhat, and least) to the current objective assisting users in selecting appropriate questions. By default, only the Most and Somewhat relevant questions are shown. Select the **Show Least Relevant Questions** link to view the remaining available questions (Figure 3-21, #4).

DTIM Wizard [Return to DATIM Home](#)

Step 4: Questions

For each Objective, you must select at least one question by **double-clicking** or **dragging and dropping** between lists. [i](#)

1 Current Objective
Objective 1 Of 2: (i) Status of select watershed conditions
<< Previous Objective [Next Objective >>](#)

2 Available Questions [Show Least Relevant Questions](#) **4**

Custom Questions

Most Relevant Questions

What is the area (or length) of suitable habitat for T&E species, Sensitive species or MI species?
Indicator: Suitable wildlife habitat

What are the characteristics and health of stream/riparian channels?
Indicator: Stream/riparian characteristics

How are management actions achieving management objectives for the recovery of T&E species, conservation of Sensitive Species and SOC, and management of SOI? (MET Species Diversity)
Indicator: Management actions for T&E (MET Species Diversity)

What are conditions and trends of watersheds and for key characteristics of watershed health? How do these conditions compare to desired conditions (DC) and objectives and is there a need to change the Plan or management actions? (Watershed Health)
Indicator: Watershed conditions for DC

How are management actions maintaining or making progress toward DC or management objectives? (Watershed Health)
Indicator: Management actions for DC (Watershed Health)

What is the Percentage of U.S.Forest Service Lands in Selected Watershed(s)?
Indicator: Watershed Health

What are the Activities, Total Acres and Percent of the Area Treated by Activity for the Area? What do

3 Selected Questions [i](#) [Add All by Relevance](#) [Remove All by Relevance](#)

Is the lichen species composition and abundance changing?
Indicator: Lichens

What are the effects of human use and developments?
Indicator: Human/development impact

Figure 3-21. The Current Questions box.

Users also have the option to create custom questions. Custom questions can be made from scratch through text entry or created from an existing question.

Project Features: Create a New Question

Similar to the Objectives page, you have the option to use the Project Features (Figure 3-22) and create a custom question and indicator. For more instructions, view the section [Project Features: Creating New Objectives](#).

Once a custom question is created you can then edit or delete that question or associate it with metrics (Figure 3-22). These features follow the same process described in the Objectives section. For more instruction, view the section [Project Features: Editing and Deleting Custom Objectives](#).

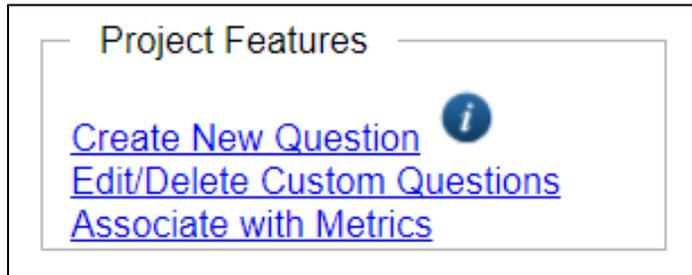


Figure 3-22. Project features for the custom questions.

Step 5: Selecting Metrics

In this step, you will select one or more metrics that will be computed to answer each objective and question couplet included in your project. For each selected metric, you will also design an output table by selecting the variables you want to use for the page, row and/or column groupings.

Metrics are very specific data focused items. At the top of the Metrics page, the question you will be selecting metrics for is displayed in the Current Question box (Figure 3-23, #1). Select at least one metric, whether a DTIM-only metric or an ATIM-compatible metric, for each objective and question pairing in your project.

For the chosen metric, select your output table **Page**, **Row**, and **Column** variables (Figure 3-23, #2) using the drop-down lists. Use the search feature above the expandable lists to find a specific metric or table variable. To apply the metric, select **Add** after choosing your desired metrics (Figure 3-23, #3).

Step 5: Metrics

For each Question, you must select at least one metric. ?

1 Current Question: Question 1 of 2: ((i) Status of select watershed conditions) How are management actions maintaining or making progress toward DC? (MET Ecos)

<< Previous Question [Next Question >>](#)

2 Available DTIM Metrics ?

Metric ?

- ▼ Custom Metrics
- ▼ Most Relevant
 - Mortality of all live (cuft per year)
 - Net growth of all live (cuft per year)

Page ?

- None
- ▶ Condition
- ▶ Down Woody Material
- ▶ Lichen

Row ?

- None
- ▶ Condition
- ▶ Down Woody Material
- ▶ Lichen

Column ?

- None
- ▶ Condition
- ▶ Down Woody Material
- ▶ Lichen

3 Add

Compatible ATIM Metrics ?

Metric ?

- ▼ Area
 - Sampled population area (POP_AREA)
- ▶ Carbon
- ▶ Change volume

Page ?

- None

Row ?

- None
- ▶ DCS Subunit
- ▶ DCS Unit
- ▶ GIS

Column ?

- None
- ▶ DCS Subunit
- ▶ DCS Unit
- ▶ GIS

Add

Selected Metrics ?

DTIM	Metric	Page	Row	Column	Action
ATIM	Metric	Page	Row	Column	Action

Project Features: [Create DTIM Metric](#)
[Create DTIM PRC](#)

Figure 3-23. The DTIM Metrics page.

Metrics that have been added will appear in the Selected Metrics box. Here you can remove a metric if necessary (Figure 3-24). If you fail to select the Add button before navigating to the next or previous step, the current metric selection will not save to your project.

Selected Metrics ?				
DTIM				
Metric	Page	Row	Column	Action
Number of structural developments (eg. roads, instream structures)	Lichen species	10-year age class	Down woody material decay class	Remove
ATIM				
Metric	Page	Row	Column	Action
Carbon in the above ground portion of the tree (CARBON_AG)	None	CND_STAND_SIZE_FIELD_CD (Stand-size field)	None	Remove

Figure 3-24. Selected metrics.

Using the Project Features

Similar to the Objectives page, you have the option to use the Project Features and create a custom metric and PRC (Figure 3-25). For more instructions, view the section [Project Features: Creating New Objectives](#). Once a custom metric or PRC is created you can then edit or delete that metric or PRC. These features follow the same process described in the Objectives section. For more information view the section [Project Features: Editing and Deleting Custom Objectives](#).

Project Features:	Create DTIM Metric	Edit/Delete Custom Metrics
	Create DTIM PRC	Edit/Delete Custom PRCs

Figure 3-25. Project features of Metrics page.

Step 6: Designing Output Tables

The Output Tables page displays each combination of objectives, questions, metrics, and page, row, column (PRC) variables selected in the previous steps. In this step, you will review each of your output tables.

Editing Output Table Values

From the Output Tables page, select a linked metric to open the **Update Output Table Values** dialog. Use the drop-down lists to make any desired changes to the **Metric**, **Page**, **Row**, and/or **Column** values (Figure 3-26).

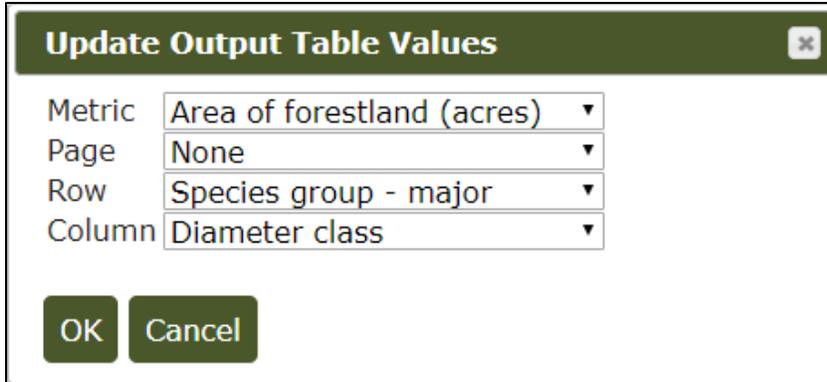


Figure 3-26. The Update Output Table Values dialog.

Including/Excluding Output Tables in the Sampling Calculator

All of your output tables will be passed to the Sampling Calculator page by default. To exclude an output table, select the output table and uncheck the checkbox under the Include in Sampling Calculator label (Figure 3-27).

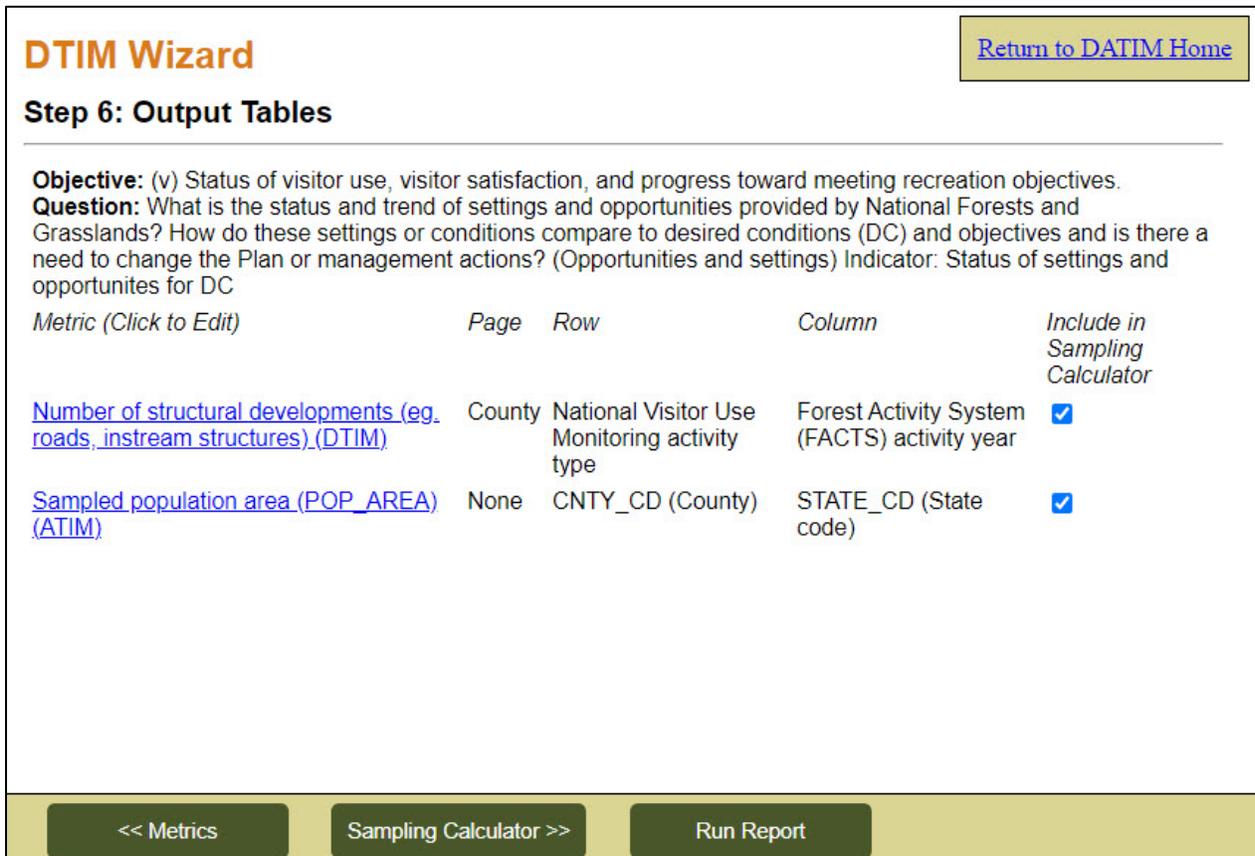


Figure 3-27. Output Tables page.

Step 7: Sampling Calculator

For each output table included, the Sampling Calculator can calculate the estimates based on existing data and precision requirements. If additional sampling is needed, DTIM will calculate the number of additional samples necessary to address your monitoring questions.

Each output table created for your project is listed on the Sampling Calculator page (Figure 3-28). If you have many output tables in your project, you can prioritize their ordering in the list. Select the up or down button,  , for an output table to position it higher or lower on the list.

DTIM Report Wizard

Step 7: Sampling Calculator

Supply data for the collected fields and DTIM will calculate the sampling values. You can scroll through the output tables using the Previous and Next links. 

Output Tables

Metric	Page	Row	Column	Complete	Position
Area of forestland (acres)	None	Species group - major	Diameter class		
NBR_TREE (Trees)	None	TREE_CLASS_CD (FIA tree class)	DIA_CLASS_2_INCH (2 inch diameter class, 0-29+)		 
Number of standing dead trees 5" + dbh (trees)	None	Diameter class	Condition tree		

Figure 3-28. Output tables in the Sampling Calculator page.

The Details section provides information about the output table you are currently working with (Figure 3-29, #1). The ATIM Compatibility field indicates whether the metric is compatible with ATIM (Figure 3-29, #2). If it is compatible, you can retrieve estimates and required precision values for the output table directly from ATIM.

The Labels section allows you to supply custom labels for the page, row, and column variables for your output table (Figure 3-29, #3). When you generate the DTIM Report, your custom labels will be included in the master Sampling Values table.

Step 7: Sampling Calculator
 Supply data for the collected fields and DTIM will calculate the sampling values. You can scroll through the output tables using the Previous and Next links. ?

Output Tables	Metric	Page	Row	Column	Complete	Position
	Area of forestland (acres)	None	None	None		⇅
	TEST 5 LONG. (FVS_TEST5)	None	None	None		⇅

[<< Previous](#) [Next >>](#)

1 Details

Table Name: TEST 5 LONG. (FVS_TEST5) by None by None by None
 Objective: (i) Status of select watershed conditions
 Question: What is the Percentage of U.S.Forest Service Lands in Selected Watershed(s)?
 Indicator: Watershed Health

2 ATIM Comptability: Compatible [Select ATIM Analysis](#)

3 Labels

Page: None	<input type="text"/>
Row: None	<input type="text"/>
Column: None	<input type="text"/>

Figure 3-29. Entering custom row and column labels for an output table.

Providing Sampling Values for DTIM Compatible Metrics

If the metric combination is not compatible with ATIM, as indicated by the ATIM Compatibility field in the Details section, you will need to supply the estimation attributes needed for DTIM to calculate the remaining sampling values (Figure 3-30).

Most of these values can be obtained by creating a report in ATIM with the same estimate and page, row, column selections as you have selected in DTIM. You can either run a standard report if it exists with these same selections, create a custom report, or customize a standard report to fit your needs. Visit the section on [creating reports](#) in ATIM for more information.

Sampling Values - Information from existing sample and specification of allowable error.

Note: Sampling Values are calculated as you tab or click away from the fields below.

Title of the Analysis: 	<input type="text"/>
Desired Level of Precision (%): 	<input type="text" value="10"/>
Confidence Level (1- α) (%): 	<input type="text" value="68"/>
Coefficient of Variation (CV) (%): 	<input type="text"/>

Anticipated Sampling Values - Expected results based on selected allowable error.

Sample Size Required for the Precision and Confidence Level (1- α) Specified: 

Figure 3-30. Sampling values page.

Based on the values you entered, DTIM will automatically calculate the Anticipated Sampling Values. Once the required sampling values have been supplied for a given output table, a completion indicator  will display in the list.

Repeat the steps above for each additional metric and PRC combination that you want to calculate sampling values for and is not compatible with an ATIM analysis.

Providing Sampling Values for ATIM Compatible Metrics

If the selected metric and PRC combination is compatible with ATIM you may select an ATIM analysis to retrieve estimation attribute values from, which will automatically populate some of the sampling fields on the Sampling Calculator page.

To retrieve estimation attributes, you must first Select the **ATIM Analysis** ([Figure 3-29, #2](#)). A window will open allowing you to select the state or National Forest analysis you want to retrieve estimates for ([Figure 3-31](#)).

Select Analysis

From the list below, select the ATIM Analysis that you would like to use as your look up for Estimation Attributes.

Select [State](#) or [Forest](#).

Cancel

Figure 3-31. Select an Analysis from a State or National Forest for your estimation attributes.

If you have selected an ATIM Analysis and would like to change your selection, you can select the **Change ATIM Analysis** link (Figure 3-31, #1). Alternatively, if you are satisfied with your ATIM analysis selection, select the **Retrieve Estimation Attributes** link (Figure 3-32, #2) to pull the estimation values.

Details

Table Name: Sampled population area (POP_AREA) by None by CND_STAND_SIZE_FIE

Objective: (i) Status of select watershed conditions

Question: Is the lichen species composition and abundance changing?

Indicator: Lichens

ATIM Comptability: Compatible - Current Analysis: Alaska 2004-2015 (Forest Land)

1 [Change ATIM Analysis](#) [Retrieve Estimation Attributes](#) **2**

Figure 3-32. Retrieving Estimation Attributes from selected ATIM Analysis.

Based on these values from the estimate attribute selected, DTIM will automatically calculate the anticipated sampling into the reference data box (Figure 3-33).

Sampling Values - Information from existing sample and specification of allowable error.
Note: Sampling Values are calculated as you tab or click away from the fields below.

Title of the Analysis: <i>i</i>	<input type="text"/>
Desired Level of Precision (%): <i>i</i>	<input type="text" value="10"/>
Confidence Level (1- α) (%): <i>i</i>	<input type="text" value="68"/>
Coefficient of Variation (CV) (%): <i>i</i>	<input type="text"/>

Reference Data from ATIM

Estimate: <i>i</i>	<input type="text" value="11,759.00000"/>
Coefficient of Variation (CV) (%): <i>i</i>	<input type="text"/>
Number of Plots in Data: <i>i</i>	<input type="text" value="0"/>

Anticipated Sampling Values - Expected results based on selected allowable error.

Sample Size Required for the Precision and Confidence Level (1- α) Specified: <i>i</i>
--

Figure 3-33. Anticipated sampling values calculated.

Viewing the DTIM Report

When you run your report, a new tab will open in your browser displaying your DTIM report consisting of metadata related to your project, your objective, question & metric selections, and output tables.

Downloading the DTIM Report

To download the report, select the **Report PDF** link ([Figure 3-34, #1](#)).

Metadata

Each report has metadata associated with it ([Figure 3-34, #2](#)). The metadata informs the viewer who created the report, the date the report was created, and the last modified date. It also shows the base template used for this report, who created the base template, and if a region and forest were selected for the project.

The screenshot displays the DTIM View Report page. At the top, it shows the report title "DTIM Report (Report PDF)" with a circled '1'. Below this is the "Project Title: 12939414195144" and a link to "Hide Project Metadata" with a circled '2'. The description is "12939414195144".

Metadata fields are organized into three columns:

- Column 1: Creator (unknown), Date Created (2020-01-08), Last Modified.
- Column 2: Base Template (2012 Planning Rule), Base Template Creator (Ervin Czimskey).
- Column 3: Project Region (None), Project Forest (None).

Navigation tabs are located below the metadata: "OQMs" (circled '3'), "Output Tables" (circled '4'), "Sampling Values" (circled '5'), and "Master" (circled '6').

Below the tabs, a summary line reads "1 Objective, 1 Question, 2 Metrics" with "Expand all" and "Collapse all" links. The main content area shows an "Objective" titled "(i) Status of select watershed conditions". Underneath, a "Questions" section is expanded, showing a question: "Is the lichen species composition and abundance changing?" with an indicator of "Lichens". Two metrics are listed: "Area" and "Diversity".

Figure 3-34. DTIM View Report page.

OQM's

The report opens with the Objective, Questions, and Metrics (OQMs) tab (Figure 3-34, #3) of the report output as active. This tab lists all your Objective, Question, and Metric selections made during the project creation in DTIM (Figure 3-35).

QQMs Output Tables Sampling Values Master

1 Objective, 4 Questions, 5 Metrics Expand all | Collapse all

Objective Wildlife Habitat

▼ Questions 4

<p>Question</p> <p>What is the distribution of tree species across the forested landscape? What tree species are increasing or decreasing in ecological importance?</p> <p>Indicator: Tree abundance</p>	<p>Metric: Area of forestland (acres)</p> <p>Metric: Trees</p>
<p>Question</p> <p>What is the abundance of snags and is it changing? Is land management reducing snag abundance below levels needed by wildlife?</p> <p>Indicator: Snag abundance</p>	<p>Metric: Number of standing dead trees 5"⁺ dbh (trees)</p>
<p>Question</p> <p>What is the amount and distribution of coarse woody debris and is it changing? Are land management and silviculture reducing CWD below levels needed by wildlife?</p> <p>Indicator: Coarse woody debris</p>	<p>Metric: Coarse Woody Debris: (cu ft)</p>
<p>Question</p> <p>What is the composition and diversity of understory vegetation by forest type? Is native understory richness is declining over time?</p> <p>Indicator: Understory native plant richness</p>	<p>Metric: Diversity</p>

Figure 3-35. The Objectives, Question and Metric report page.

Output Tables

The **Output Tables** tab (Figure 3-34, #4) displays the output tables that consist of the output table names and the associated objective question, and metrics. By default, all of your output tables are listed. You can use the **Objective** (Figure 3-36, #1) **Question** (Figure 3-36, #2), and **Metric** (Figure 3-36, #3) drop-down menus to filter or sort the output tables.

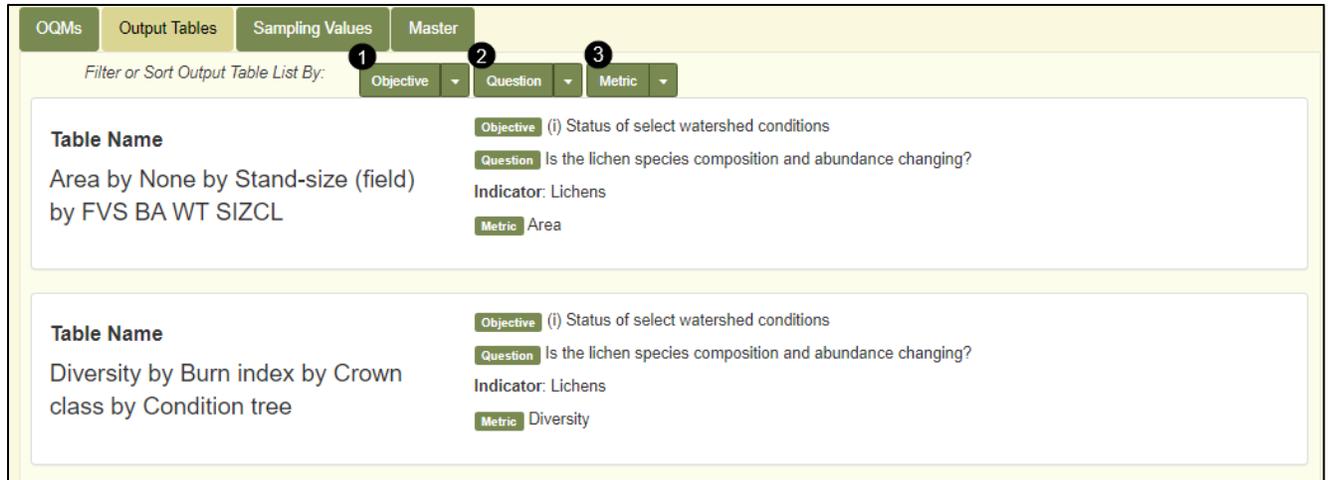


Figure 3-36. The DTIM report Output Tables tab.

Sampling Values

The Sampling Values tab (Figure 3-34, #5) shows the sampling values for the selected metric (Figure 3-37, #1). The previously chosen metrics can be shown as a list or a table (Figure 3-37, #2).

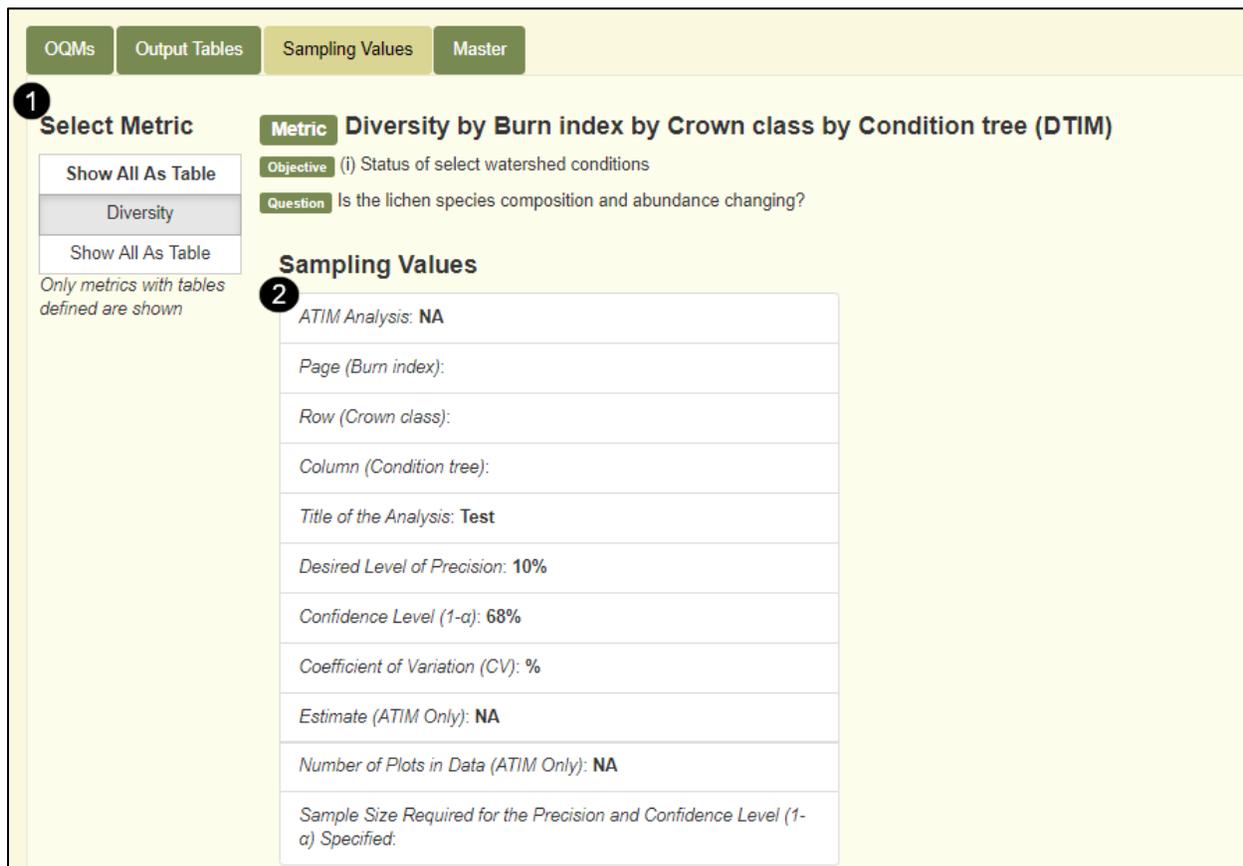


Figure 3-37. The Sampling Values listed for the selected metric.

Master

The Master tab (Figure 3-34, #6) displays all of the output tables you created in your DTIM project (Figure 3-38, #1). The sampling values calculated for the metrics you specified are also displayed (Figure 3-38, #2).

1 Output Tables

Area by None by Stand-size (field) by FVS BA WT SIZCL

Objective (i) Status of select watershed conditions

Question Is the lichen species composition and abundance changing?

Indicator: Lichens

Metric Area

Diversity by Burn index by Crown class by Condition tree

Objective (i) Status of select watershed conditions

Question Is the lichen species composition and abundance changing?

Indicator: Lichens

Metric Diversity

2 Sampling Values

Sampling Values

Metric	Title of the Analysis	Desired Level of Precision	Confidence Level (1-α)	Coefficient of Variation (CV)	Estimate (ATIM Only)	Number of Plots in Data (ATIM Only)	Sample Size Required for the Precision and Confidence Level (1-α) Specified
Diversity by Burn index () by Crown class () by Condition tree () - DTIM Analysis: NA	Test	10%	68%	%	NA	NA	

Figure 3-38. The Master tab on the DTIM Report.

Suggested Citation

At the bottom of the all DTIM Report pages, you will find a suggested citation to use in your reports, presentations, etc. (Figure 3-39).

Suggested Citation: Forest Inventory and Analysis. Design and Analysis Toolkit for Inventory and Monitoring web application, Version February 28, 2019 10.1-rc.3 8b3aba2 . St. Paul, MN: U.S. Department of Agriculture, Forest Service, Northern Research Station. Available only on internet: <https://www.fs.fed.us/emc/rig/DATIM/index.shtml>. 3/1/2019 9:57:06 AM.

Figure 3-39. Suggested Citation for publications.

Exiting DTIM Wizard

Once you are finished using the DTIM wizard, you can exit the wizard by selecting the **Return to DATIM Home** button (Figure 3-40, #1). This will prompt a message confirming that you do want to return to the DATIM home page and that

any unsaved changes will be lost (Figure 3-40, #2). Select No to stay on DTIM and save your changes. Otherwise, press Yes to return to DATIM home.

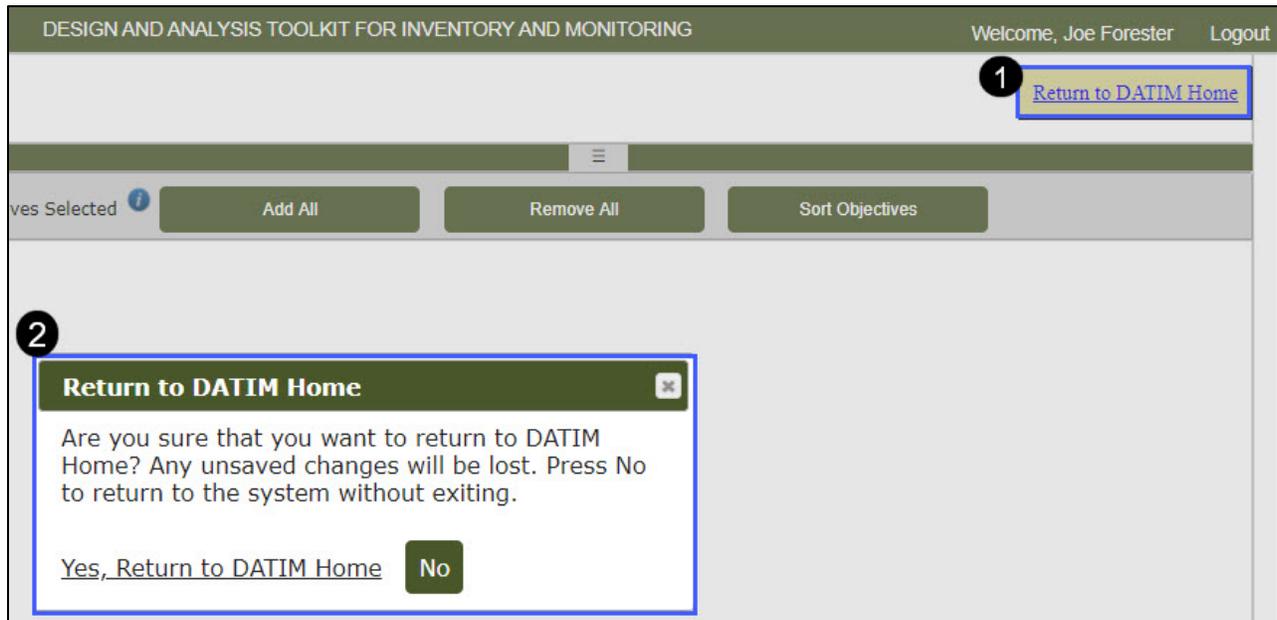


Figure 3-40. Exit DATIM using the Return to DATIM Home button.

DTIM Tools

Report Manager

The Report Manager allows you to access the feature, which provides details for one project, and the feature, which combines details from multiple reports.

To access, select the **Report Manager** link (Figure 3-41) underneath the DTIM Tools. The Report Manager link is available throughout the whole DTIM wizard, you do not need to navigate through all the steps in the DTIM wizard to get to the Report Manager. Additionally, while you do not need to be logged in to use this feature, it is strongly recommended you are so that you can save your updates.



Figure 3-41. Report Manager Link.

Step 1: Select Report Type

In step 1 of the report manager, you will select the type of project you need to access. **Project Reports** (Figure 3-42, #1) allows you to print or export the content of a single report. **Aggregate Reports** (Figure 3-42, #2) combine details from many projects and give you a summary and comparative information.

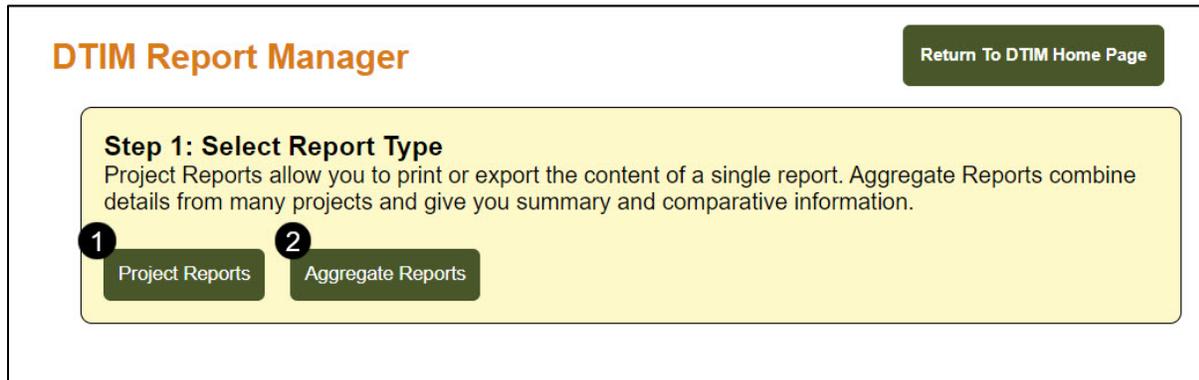


Figure 3-42. DTIM Report Manager Page.

Using the Project Reports

Select Projects

In step one, selecting **Project Reports** will open a list of available reports that can be filtered by template (Figure 3-43, #1), if necessary.

Project Details and Report Selection

After you choose a report, Step 3: Project Details and Report Selection opens (Figure 3-43, #2). You are able to view the full details of the report, print the report, or export it as a PDF (Figure 3-43, #3-5). When you select any of the three buttons, a new tab will open displaying the chosen page.

Step 2: Select Project
Select a project from the list below or use the drop down to filter the list by Template.

1 Filter by Template

All

Name	Description
0905 MTNF 2016 Draft Monitoring Plan	Revised Draft Monitoring Plan for the Mark Twain National Forest
2012planning_R6_Test_2019	Demo project for R6 land management plan monitoring.
ANGELES_NF_RCRC	ANGELES_NF_RCRC
Gretchen 8/2/2017	testing
Gretchen's project	testing
IS1	Coastal Preserves Invasive test
Invasive tree	Invasive Tree Distribution in South

2 Step 3: Project Details and Report Selection

Name: 2012planning_R6_Test_2019
 Description: Demo project for R6 land management plan monitoring.
 Region: Pacific Northwest Region 6
 Forest: Willamette (R6)
 Owner: unknown
 Created By: mmpalmer
 Date Created: 02/04/2019
 Last Modified By: mmpalmer
 Date Modified: 02/04/2019

3 View Full Details **4** Printable Report **5** PDF Export

Figure 3-43. Project Reports Page.

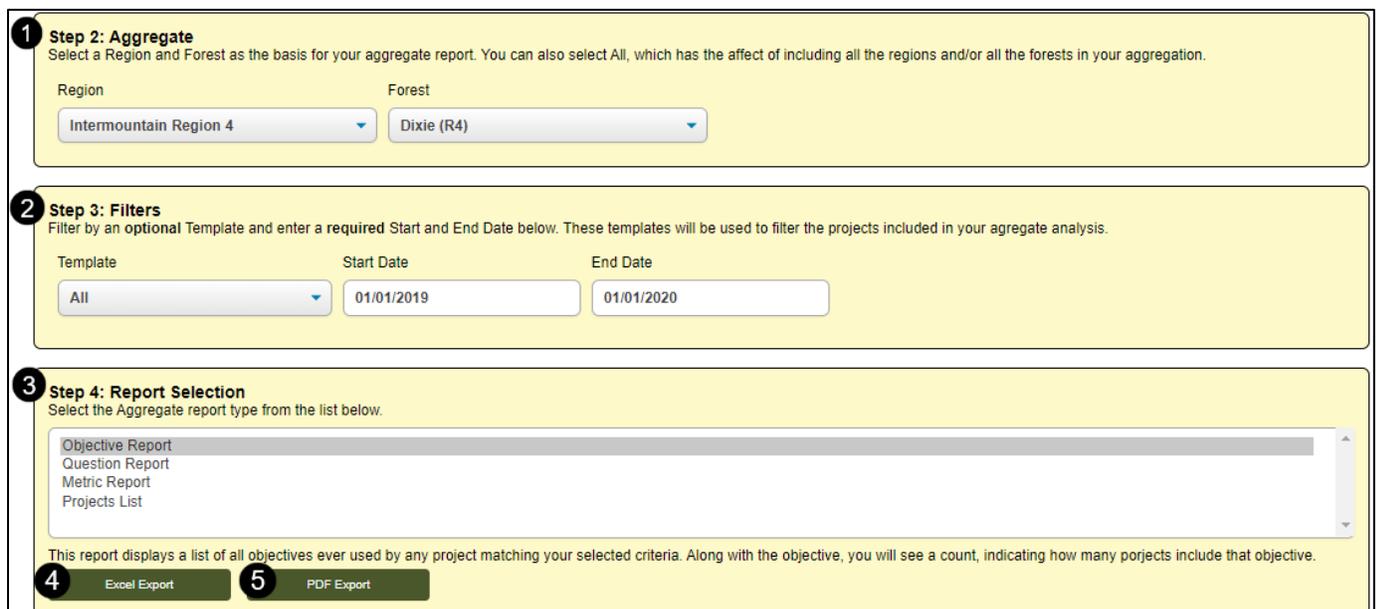
The **View Full Details** button will open the DTIM Project Manager where you can then select the project to open or view. To return directly to the **Report Manager** you must go back to the tab you were previously on. The View Report Manager will return you to the beginning of the Report Manager.

The **Printable Report** button opens the DTIM Report where you can then print a copy of the report and the **PDF Export** button will download the report as a PDF.

Using the Aggregate Reports

In step one, select Aggregate Reports. This will then open step 2, where you will choose a region and forest for your report (Figure 3-44, #1). Step 3 will automatically open where you can filter the projects by template and date (Figure 3-44, #2).

The final step is to select the report type (Figure 3-44, #3), which include **Objective Report**, **Question Report**, **Metric Report**, and **Projects List**. Once you have selected the report type you can then select either the **Excel Export** (Figure 3-44, #4) or the **PDF Export** (Figure 3-44, #5) button. Once selected, these will automatically begin the download sequence.



1 Step 2: Aggregate
Select a Region and Forest as the basis for your aggregate report. You can also select All, which has the affect of including all the regions and/or all the forests in your aggregation.

Region: Intermountain Region 4
Forest: Dixie (R4)

2 Step 3: Filters
Filter by an optional Template and enter a required Start and End Date below. These templates will be used to filter the projects included in your aggregate analysis.

Template: All
Start Date: 01/01/2019
End Date: 01/01/2020

3 Step 4: Report Selection
Select the Aggregate report type from the list below.

- Objective Report
- Question Report
- Metric Report
- Projects List

This report displays a list of all objectives ever used by any project matching your selected criteria. Along with the objective, you will see a count, indicating how many porjects include that objective.

4 Excel Export **5 PDF Export**

Figure 3-44. Aggregate Reports Page.

Project Manager

The Project Manager is used to open and delete existing projects in DTIM. You must be logged in to use this feature. To begin, select the **Project Manager** link in the DTIM tools menu (Figure 3-45).



Figure 3-45. The DTIM Project Manager link.

On the **My Projects** tab, you have the option to open, save, view, and delete your project (Figure 3-46, #1-4). Below these options you can also share the project with a team or a member and assign their role (Figure 3-46, #5-6).

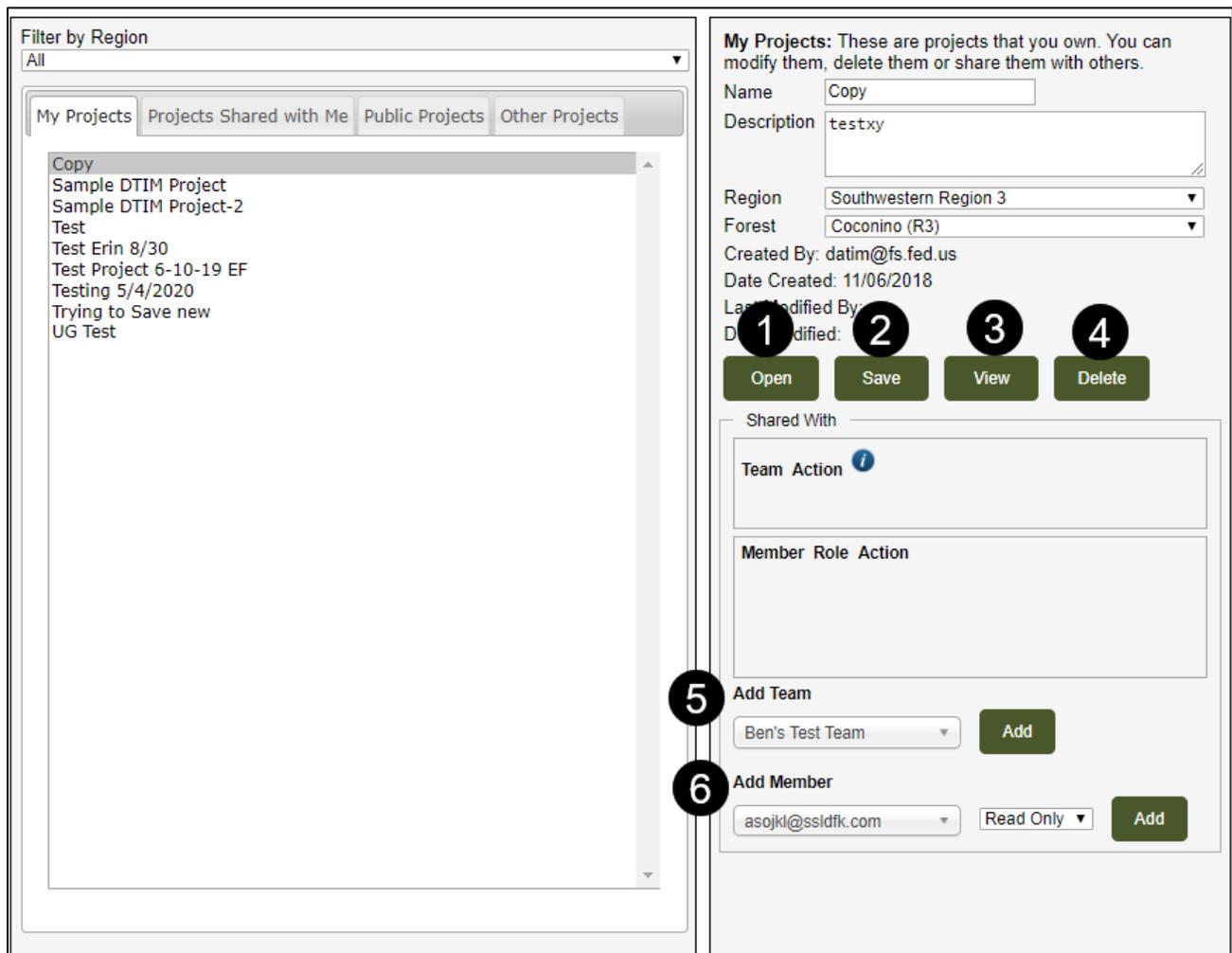


Figure 3-46. Viewing the My Projects tab in the DTIM Project Manager.

When viewing a project, you will be redirected to the Run Report page (Figure 3-47, #1). The DTIM Project Viewer page will also show the project details, template used, objectives, questions, metrics set, and the precision values (Figure 3-47, #2).



Figure 3-47. The DTIM Project Viewer.

The Projects Shared with Me, Public Projects, and Other Projects tabs have similar functionalities as the My Projects tabs. On these tabs you can open, create, or view projects that are shared with you or public.

DTIM Administrative Tool

Administrators can use the DTIM Administrative tool (Figure 3-48) to manage Base Templates and other DTIM Features. In order to use these tools and features, you must be logged in and have an administrator role granted to your account. You can modify, delete, or activate existing templates, create a new template, create a new template from a project, and restore public archived templates. In addition, you can manage public projects by adding or removing them from the list of available public projects to work with.

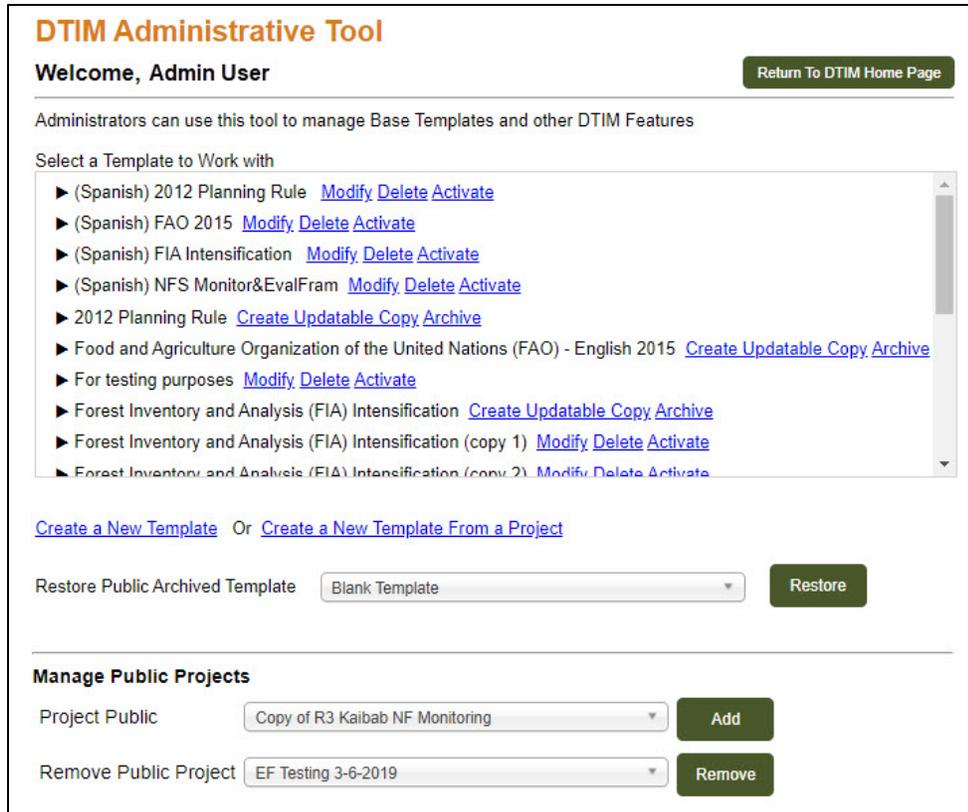


Figure 3-48. DTIM Administrative Tool.

Working with Existing Templates

When working with existing base templates, an administrative user may select a template to either modify it, create an updatable copy, delete it, activate a disabled template, and archive it.

Selecting a template to work with

To select a base template to work with, access the DTIM Admin Tool (Figure 3-49) from the DTIM Tools drop-down.



Figure 3-49. DTIM Tools - Select the DTIM Administrative Tool.

Next, view the list of available base templates (Figure 3-50).

The screenshot shows the DTIM Administrative Tool interface. At the top, it says "DTIM Administrative Tool" in orange. Below that, it says "Welcome, Admin User" and "Return To DTIM Home Page" in a green button. A message states: "Administrators can use this tool to manage Base Templates and other DTIM Features". A search box is labeled "Select a Template to Work with". Below the search box is a list of templates, each with a right-pointing arrow and a set of action links (Modify, Delete, Activate, Create Updatable Copy, Archive).

Template Name	Actions
▶ (Spanish) 2012 Planning Rule	Modify Delete Activate
▶ (Spanish) FAO 2015	Modify Delete Activate
▶ (Spanish) FIA Intensification	Modify Delete Activate
▶ (Spanish) NFS Monitor&EvalFram	Modify Delete Activate
▶ 2012 Planning Rule	Create Updatable Copy Archive
▶ Food and Agriculture Organization of the United Nations (FAO) - English 2015	Create Updatable Copy Archive
▶ For testing purposes	Modify Delete Activate
▶ Forest Inventory and Analysis (FIA) Intensification	Create Updatable Copy Archive
▶ Forest Inventory and Analysis (FIA) Intensification (copy 1)	Modify Delete Activate

Figure 3-50. DTIM Administrative Tool with the list of available base templates.

From here you can use the arrow to the left of the template name to see related metadata about it. Then, to work with the template, you must select one of the user-activated options listed to the right of the template name such as, Modify, Delete, Activate, Create Updatable Copy, or Archive.

Modify a Base Template

To modify a base template, the modify link must be selected. This will open the DTIM Template Editor tool. The **Template Details** tab (Figure 3-51) opens by default. Here you can modify the template name, related region, associated forest, and update the template description. Note that the title field has a limit of 75 characters and the description box has a limit of 255 characters.

DTIM Administrative Tool Template Editor - Template Details

TEMPLATE DETAILS OBJECTIVES QUESTIONS METRICS PAGE, ROW AND COLUMN VARIABLES EXIT EDITOR

Name (Spanish) 2012 Planning Rule
46 characters remaining

Region Alaska Region 10

Forest Chugach (R10)

Description <Enter Description Here - Required>
255 characters remaining

Save Reset

Figure 3-51. Template Details.

The **Objectives** tab (Figure 3-52) allows you to add and import objectives into the template. This is also the location where you can adjust the position of the objectives in terms of relevancy. Note that only objectives that are not associated with any questions can be deleted.

DTIM Administrative Tool Template Name: For testing purposes - Objectives

TEMPLATE DETAILS OBJECTIVES QUESTIONS METRICS PAGE, ROW AND COLUMN VARIABLES EXIT EDITOR

[Add Objective](#)
[Import Objectives](#)

Note: Only objectives that are not in an association with ANY question can be deleted.

Objective	Position	Move	Action
(i) Status of select watershed conditions	1	⬆️ ⬇️ ⬆️	Update
(ii) Status of select ecological conditions including key characteristics of terrestrial and aquatic ecosystems	2	⬆️ ⬇️ ⬆️	Update
(iii) Status of focal species to assess the ecological conditions under 219.9	3	⬆️ ⬇️ ⬆️	Update
(iv) Status of a select set of ecological conditions required under 219.9 to contribute to the recovery of federally listed threatened and endangered species, conserve proposed and candidate species, and maintain a viable population of each species of conservation concern.	4	⬆️ ⬇️ ⬆️	Update

Figure 3-52. Template objectives.

To import objectives, you must use a text file stored in the user's own file directory. Rather than adding OQM/PRCs one-by-one in the DTIM wizard (which can be hard to keep track of if you're working with a large list), the import option

allows the user to create a complete list ahead of time. Once they're satisfied with the list, they can import the text file in separated by commas. This will populate the custom template with the full set of Objectives.

Additionally, you can update the text in the objective by clicking the Update action (Figure 3-52). The Objective modal (Figure 3-53) opens to allow edits to the text. Select Save to complete the objective update, or cancel to keep the original text.

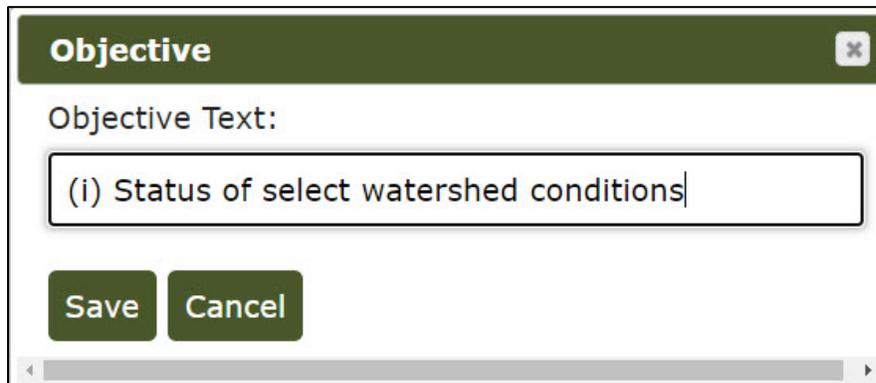
The image shows a modal dialog box titled "Objective" with a close button in the top right corner. Below the title, the text "Objective Text:" is displayed. A text input field contains the text "(i) Status of select watershed conditions". At the bottom of the dialog, there are two buttons: "Save" and "Cancel".

Figure 3-53. Update Objective text.

The **Questions** tab (Figure 3-54) allows you to add/import questions to the template. Additionally, you can associate questions with the objectives selected in the previous tab. Similar to the Objectives tab, you can modify the position of the questions in terms of the relevancy.

DTIM Administrative Tool Template Name: For testing purposes - Questions

TEMPLATE DETAILS OBJECTIVES **QUESTIONS** METRICS PAGE, ROW AND COLUMN VARIABLES EXIT EDITOR

Template Questions [Associate Questions with Objectives](#)

[Add Question](#)
[Import Questions](#)

Note: Only questions that are not in an association with ANY objective or metric can be deleted.

Question	Indicator	Position	Move	Action
What is the distribution of tree species across the forested landscape? What tree species are increasing or decreasing in ecological importance?	Tree abundance	1	↓	Update
What are growth and mortality rates overall and for individual species and how are these rates changing? Are there correlations between vital rates and key stressors such as air pollution, pest or pathogen outbreaks, or climatic stress?	Tree growth and mortality rates	2	↑ ↓	Update
What is the condition/health of tree species? What is the degree of pest/pathogen damage?	Tree condition	3	↑ ↓	Update

Figure 3-54. Template questions.

You can also update the text in the question and the indicator, by selecting the **Update** action. This will open the Question modal (Figure 3-55) where you can edit and save the text.

Question ✕

Question Text:

Indicator:

[Save](#) [Cancel](#)

Figure 3-55. Update Question text.

Next, the Metrics tab (Figure 3-56) allows you to add/import metrics and associate metrics with questions. The metrics can be edited using the Update action. The metric can be deleted using the Delete action. Note, that only metrics that are not associated with any question can be deleted.

DTIM Administrative Tool Template Name: For testing purposes - Metrics

TEMPLATE DETAILS OBJECTIVES QUESTIONS **METRICS** PAGE, ROW AND COLUMN VARIABLES EXIT EDITOR

Template Metrics [Associate Metrics with Questions](#)

[Add Metric](#)
[Import Metrics](#)

Note: Only metrics that are not in an association with ANY question can be deleted.

Metric	Action
% Bare Soil	Update Delete
% Canopy Cover Layer 1	Update
% Canopy Cover Layer 2	Update
% Canopy Cover Layer 3	Update
% Canopy Cover Layer 4	Update

Figure 3-56. Template Metrics.

When updating a metric, you can edit the metric text via the Metric modal (Figure 3-57) that opens. Select Save to keep the edits or Cancel to discard the edits.

Metric [X]

Metric Text:

% Bare Soil

[G]

Save Cancel

Figure 3-57. Update Metric text.

Next, the Page, Row, and Column (PRC) Variables tab (Figure 3-58) allows you to add/import Page, Row, Column Variables, and update or delete them.

DTIM Administrative Tool Template Name: For testing purposes - Page, Row, Column Variables

Variables

TEMPLATE DETAILS OBJECTIVES QUESTIONS METRICS PAGE, ROW AND COLUMN VARIABLES EXIT EDITOR

[Add Page, Row, Column Variable](#)
[Import Page, Row, Column Variables](#)

Variable Text	Include In Page	Include In Row	Include In Column	Category	Action
10-year age class	No	Yes	Yes	COND	Update Delete
2 inch diameter class, 0-29+	No	Yes	Yes	TREE	Update Delete
5 inch diameter class, 0-25+	No	Yes	Yes	TREE	Update Delete
Administrative (AD) Region	Yes	Yes	Yes	COND	Update Delete

Figure 3-58. Template Page, Row, Column Variables.

To update the PRC variables, select the Update action and the PRC Variable modal (Figure 3-59) will open to allow edits for the Variable Text, whether the variable is to be included in the page, row, or column, and what the condition is.

PRC Variable

Page, Row, Column Text:

Select a Category:

Include in Lists:
 Page Row Column

Figure 3-59. Update PRC Variable.

Finally, the Exit Editor tab (Figure 3-60) allows you to exit the Template Editor tool.



Figure 3-60. Exit Editor.

Upon exiting the editor, you will be returned to the DTIM Administration Tool interface (Figure 3-50).

Delete a Base Template

To delete a base template, select the **Delete** Action link listed next to the Base Template name.

Create an Updatable Copy of a Base Template

To create an updatable copy of a base template, you must select the Create Updatable Copy link (Figure 3-61).

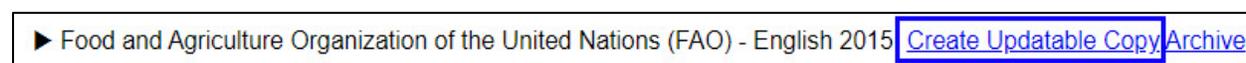


Figure 3-61. Create Updatable Copy link.

This may take a minute or two to be created (Figure 3-62).



Figure 3-62. Process status.

Once the copy is created, you will see it appear near the original template with (copy #) added. Once created, the option to modify, delete, or activate the template appears (Figure 3-63).



Figure 3-63. Template copy created.

Activate a Base Template

When base templates are created, they are not automatically published as active. To activate the base template, you must select the Activate link (Figure 3-64).

▶ Food and Agriculture Organization of the United Nations (FAO) - English 2015 (copy 1) [Modify](#) [Delete](#) [Activate](#)

Figure 3-64. Activate Base Template.

Archive a Base Template

It is occasionally beneficial to archive a base template so that it doesn't appear in the base template list. To do so, select the Archive link ([Figure 3-65](#)).

▶ Food and Agriculture Organization of the United Nations (FAO) - English 2015 [Create Updatable Copy](#) [Archive](#)

Figure 3-65. Archive a Base Template.

Creating a New Template

To create a new template, select the Create a New Template link ([Figure 3-66](#)).

[Create a New Template](#)

Figure 3-66. Create a New Template link.

This will open the Create New Template modal ([Figure 3-67](#)) where you can enter a template name, associate a region, associate a forest, and a description. Note that the title field has a limit of 75 characters and the description box has a limit of 255 characters. Select Save to process the template creation.

Figure 3-67. Create New Template modal.

Creating a New Template from a Project

To create a new template from a project, you must select the Create a New Template from a Project link (Figure 3-68).

[Create a New Template From a Project](#)

Figure 3-68. Create a New Template from a Project.

This will open the Create New Template from Existing Project modal (Figure 3-69) where you will select the project to associate the template to, add a template name, associate a region, associate a forest, and add a description. Note that the title field has a limit of 75 characters and the description box have a limit of 255 characters. There are project details listed on the right side of the dialog box that outlines the project name, project description, and the project owner.

Figure 3-69. Create New Template from Existing Project modal.

Restoring a Public Archived Template

When you need to restore a public archived template, you must select a template from the drop-down list (Figure 3-70). Next, hit Restore and the template will move to the 'Select a Template to Work With' list.

Figure 3-70. Restore a Public Archived Template.

Manage Public Projects

When managing a public project, you are able to select the project to either add or remove it from the Public Projects pick list (Figure 3-71).

Figure 3-71. Manage Public Projects.

The public project pick list is found in the DTIM Project Manager tool (Figure 3-72). For more information, see the Project Manager section.

Figure 3-72. Public Project pick list.

Chapter 4: SIT

Introduction to SIT

The **Spatial Intersection Tool (SIT)** provides a geospatial interface (GI) for users to access natural resource inventory datasets and intersect plot-based data with geospatial layers via ArcMap in the ArcGIS Desktop. It is integrated with the **Analysis Tool for Inventory and Monitoring (ATIM)** to enable you to focus your ATIM analysis on a geographic area of interest and to summarize the results of your analysis reports using map-based attributes.

This application accesses the data features contained in the Field Sampled Vegetation (FSVeg) database, the FSVeg Spatial database, and the Forest Inventory and Analysis (FIADB) database.

Before using SIT, you should have a basic understanding of GIS, including experience with geoprocessing functions and overlays with multiple layers. Additionally, we assume that your computer needs meets the system requirements required to use ArcMap and the GI.

Forest Service employees with current Active Directory accounts are encouraged to run SIT from the Citrix environment as often as possible.

Geographic information systems (GIS) including plot or polygon files must be provided by users or created by SIT and meet Forest Service standards. Users can add in or create shapefiles (.shp files) using FIADB data.

Getting started with SIT

To start using SIT:

Select **SIT** in the DATIM navigation menu or select the **Spatial Intersection** button from the Welcome to DATIM home page as shown in ([Figure 4-1](#)).

The screenshot shows the DATIM web application interface. The header includes 'USDA FOREST SERVICE', 'DESIGN AND ANALYSIS TOOLKIT FOR INVENTORY AND MONITORING (DATIM)', and a 'LOGIN' link. The left sidebar contains a navigation menu with 'SIT' highlighted. The main content area displays the title 'Design and Analysis Toolkit for Inventory and Monitoring' and a 'Welcome to DATIM!' message. A 'News and Alerts' section indicates 'No user alerts at this time.' Below this, a paragraph explains that users do not need to login for most tools, except for the DATIM Compilation System (DCS) and the Spatial Intersection Tool (SIT). A list of tools is provided, with 'Spatial Intersection' highlighted in a blue box. The tools listed are: Analysis Tool for Inventory and Monitoring (ATIM), Design Tool for Inventory and Monitoring (DTIM), Spatial Intersection Tool (SIT), and DATIM Compilation System (DCS).

USDA FOREST SERVICE DESIGN AND ANALYSIS TOOLKIT FOR INVENTORY AND MONITORING (DATIM) LOGIN

Help
Contact Us

Home
ATIM
DTIM
SIT
DCS

About DATIM
User Feedback
DATIM Training
Admin Tools
Manage system-wide roles
Assign users to roles
Manage alerts
Manage users
Manage training contacts
Manage training classes

Design and Analysis Toolkit for Inventory and Monitoring

Welcome to DATIM!

News and Alerts:

- No user alerts at this time.

The Design and Analysis Toolkit for Inventory and Monitoring (DATIM) is a suite of software tools used for designing inventory and monitoring programs and analyzing the results of those programs.

With the exception of the DATIM Compilation System (DCS) and the Spatial Intersection Tool (SIT), you do not need to login to use DATIM. To access advanced features, such as saving your work to the DATIM server, please login.

To get started, select one of the tools below.

Analysis **Analysis Tool for Inventory and Monitoring (ATIM)**
Generate reports of estimate summary attributes for an area of interest and survey year. Users can select existing analysis datasets for use in reporting. Advanced users (login required) can create new analysis datasets.

Design **Design Tool for Inventory and Monitoring (DTIM)**
Design an inventory and monitoring plan to address specific information needs by identifying objectives, questions and metrics.

Spatial Intersection **Spatial Intersection Tool (SIT)**
Perform spatial intersections between plot-based data and user-selected geospatial layers, and return map attributes for use in ATIM summaries.

Compilation **DATIM Compilation System (DCS)**
Augment and enhance existing DATIM datasets with additional attributes for analyses and report generation. Requires login and advanced permissions. Multi-user operation is not allowed.

Figure 4-1. Launching the Spatial Intersection Tool (SIT).

The Spatial Intersection Tool page opens with instructions on how to access the add-in file from the Citrix Home Directory and instructions on where to save the SIT Addin file in your Desktop Home Directory if you choose to use ArcGIS from your desktop. A link to download the SIT add-in file is also provided on this page (Figure 4-2). To begin, you must install the SIT Addin file.

Spatial Intersection Tool Addin (SIT)

Welcome

SIT is available to all users with eAuthentication accounts. If you do not have an eAuth account, you may request one from the USDA. [Click here](#) to request a new USDA eAuthentication account.

SIT does not currently support intersections with rasters. You can convert your raster to vector, or choose to buffer the fuzzed locations, summarize the raster values however you chose within those buffers, and intersect the SIT points with the buffers.

To use SIT using your local ArcGIS installation:

1. Save the SIT Addin file to your local machine. [Click here to download the SIT Addin File.](#)
2. Place the SIT Addin file in the `C:\Users\<USER NAME>\My Documents\ArcGIS\AddIns\DesktopXX.XX` directory, where `XX.XX` is the version of ArcGIS on your machine.
3. Launch ArcMap on your local machine, then proceed with steps 2-12 below, under *To use SIT in Citrix*. For step 5 in that section, browse to the folder named above in step 2.

To use SIT in Citrix:

1. Launch ArcMap in Citrix.
2. Go to **Customize > Add-In Manager**.
3. In the Add-In Manager dialog, click the **Options** tab.
4. Click the button labeled **Add Folder...**
5. Browse to the folder `T:\FS\Reference\GeoTool\agency\Application\ArcGIS****\Add-Ins` and select *SIT*. Click **OK**.
 - Replace the ArcGIS**** folder with the ArcMap version you are using
6. Click the button labeled **Customize...**
7. In the Customize dialog, select the **Commands** tab.
8. In the Categories section, find and select DATIM.
9. Drag the tool name *SIT* to any available toolbar.
10. Click the **Close** button.
11. Launch SIT by clicking the SIT icon in the *DATIM - SIT* toolbar.
12. Click **Login** to login with your eAuthentication username/password or with LincPass. eAuth will return you to SIT after you successfully log in.

SIT Attribute Manager

Use the SIT Attribute Manager to view, edit, and share your SIT Attributes and see SIT Attributes that are shared with you.

[SIT Attribute Manager](#)

Figure 4-2. Spatial Intersection Tool Addin Instructions page.

Installing the SIT ArcMap Add-in to your Desktop

1. From the SIT homepage, select the link: **Click here to download the SIT Addin File** as shown in ([Figure 4-3](#)).

Spatial Intersection Tool Addin (SIT)

Welcome

SIT is available to all users with eAuthentication accounts. If you do not have an eAuth account, you may request one from the USDA. [Click here](#) to request a new USDA eAuthentication account.

SIT does not currently support intersections with rasters. You can convert your raster to vector, or choose to buffer the fuzzed locations, summarize the raster values however you chose within those buffers, and intersect the SIT points with the buffers.

To use SIT using your local ArcGIS installation:

1. Save the SIT Addin file to your local machine. [Click here to download the SIT Addin File.](#)
2. Place the SIT Addin file in the **C:\Users\<USER NAME>\My Documents\ArcGIS\AddIns\DesktopXX.XX** directory, where **XX.XX** is the version of ArcGIS on your machine.
3. Launch ArcMap on your local machine, then proceed with steps 2-12 below, under *To use SIT in Citrix*. For step 5 in that section, browse to the folder named above in step 2.

To use SIT in Citrix:

1. Launch ArcMap in Citrix.
2. Go to **Customize > Add-In Manager**.
3. In the Add-In Manager dialog, click the **Options** tab.
4. Click the button labeled **Add Folder...**
5. Browse to the folder **T:\FS\Reference\GeoTool\agency\Application\ArcGIS****\Add-Ins** and select **SIT**. Click **OK**.
 - Replace the ArcGIS**** folder with the ArcMap version you are using
6. Click the button labeled **Customize...**
7. In the Customize dialog, select the **Commands** tab.
8. In the Categories section, find and select **DATIM**.
9. Drag the tool name **SIT** to any available toolbar.
10. Click the **Close** button.
11. Launch SIT by clicking the SIT icon in the **DATIM - SIT** toolbar.
12. Click **Login** to login with your eAuthentication username/password or with LincPass. eAuth will return you to SIT after you successfully log in.

SIT Attribute Manager

Use the SIT Attribute Manager to view, edit, and share your SIT Attributes and see SIT Attributes that are shared with you.

[SIT Attribute Manager](#)

Figure 4-3. Spatial Intersection Tool Addin Link.

2. To use the SIT Tool and ArcMap from your Desktop, cut and paste the add-in file in your Downloads to the following location: **C:\Users\<USER NAME>\My Documents\ArcGIS\AddIns\DesktopXX.XX**.
3. Note, **XX.XX** is the version of ArcGIS on your machine. ArcGIS will need to be installed, and then add the last folder. If a new version of the SIT Add-in file has been released, you will need to repeat the process of installing the updated SIT add-in file to your Desktop.

Launching SIT in Citrix

To launch SIT in Citrix:

1. Login to the VDC Citrix StoreFront environment using your Active Directory username and password (Figure 4-4).

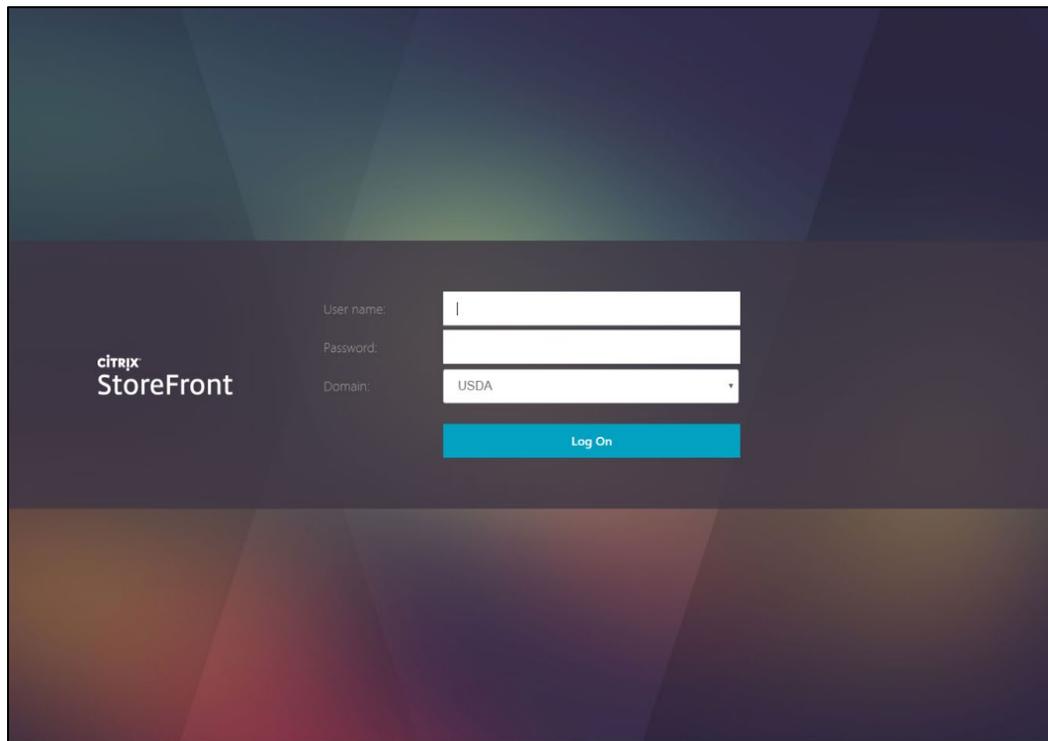


Figure 4-4. Logging into Citrix.

2. From the **Categories** tab use the following sequence of folders to open ArcMap: **National Applications** > Natural Resource Manager > ArcGIS 10-7-1 > **ArcMap 1071** icon (Figure 4-5).

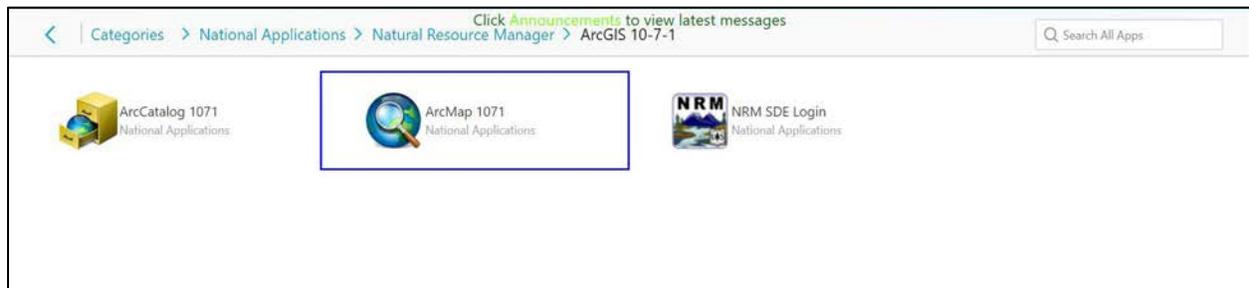


Figure 4-5. Running ArcMap from the Natural Resource Manager Directory.

3. To immediately start working with SIT, skip to the section entitled Working with SIT.

Installing the SIT Add-in File in ArcMap

From the ArcMap standard toolbar, select **Customize**, then select the **Add-In Manager** option (Figure 4-6).

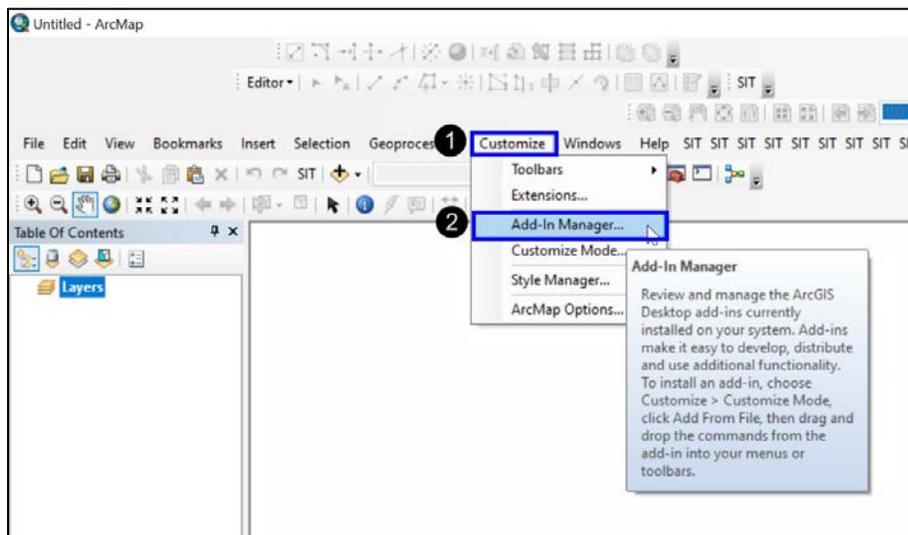


Figure 4-6. The Customize menu options.

1. The **Add-In Manager** window will open, select the **Options** tab (Figure 4-7, #1).
2. On the **Options** tab, select the **Add Folder** button (Figure 4-7, #2).

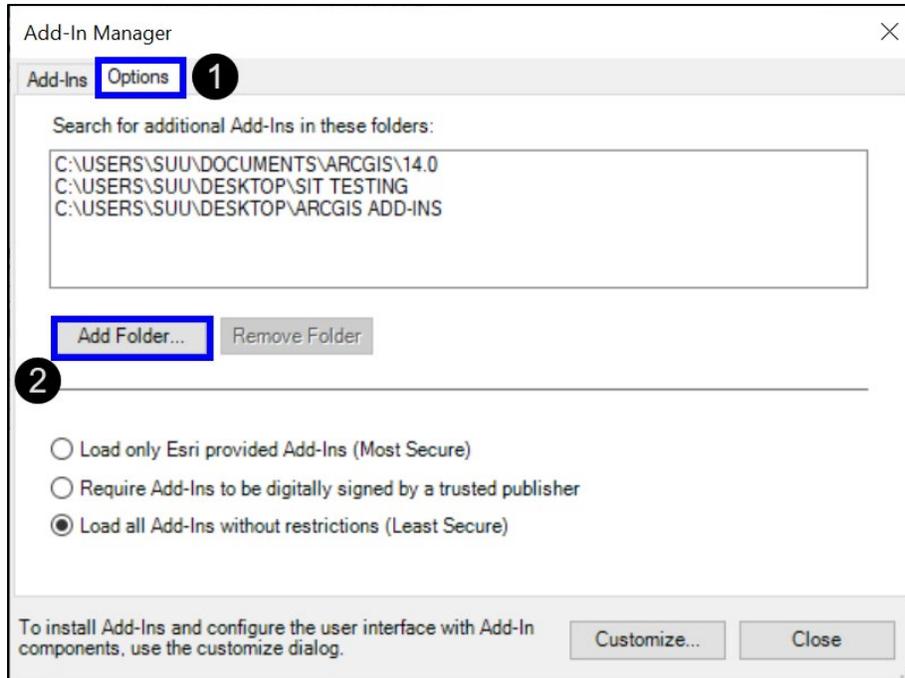


Figure 4-7. The Add-In Manager window.

- Next, browse to the folder: C:\Users\\My Documents\ArcGIS\AddIns\DesktopXX.XX and select **Ok** (Figure 4-8).

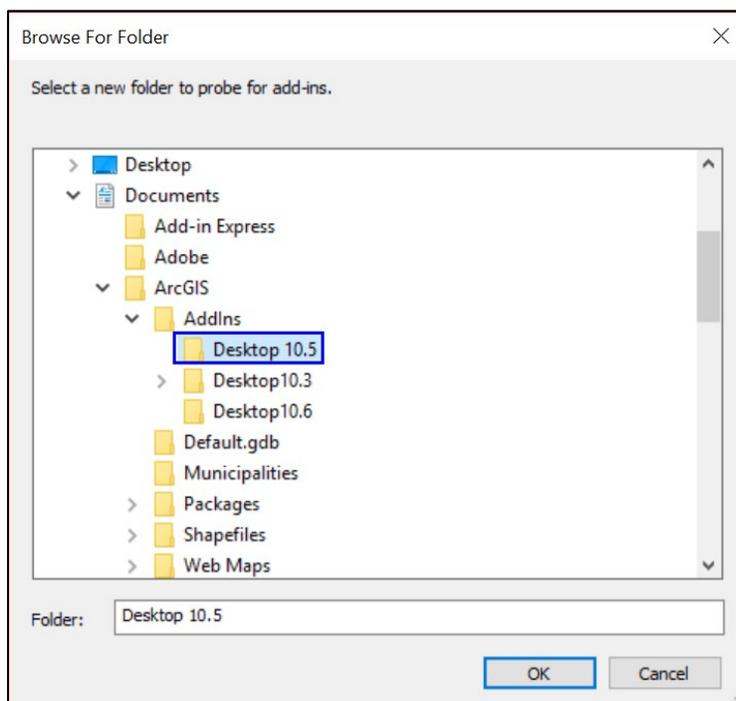


Figure 4-8. Browsing the SIT Add-In File.

4. Back in the Add-In Manager window, ensure the option to **Load all Add-Ins without restrictions** is selected (Figure 4-9).

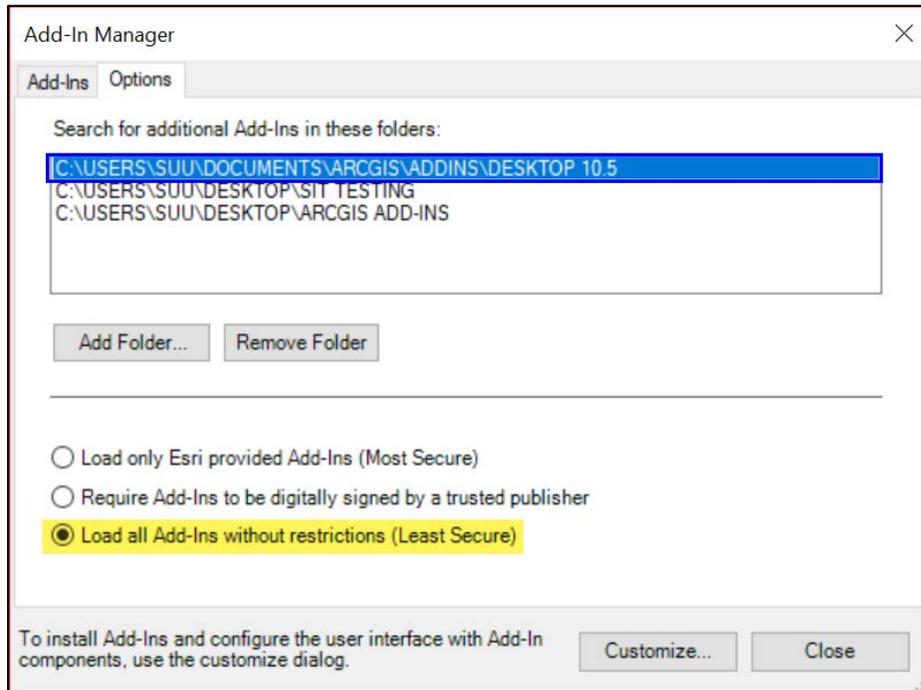


Figure 4-9. Adding the SIT Add-In file.

Adding the SIT Add-in to the ArcMap toolbar

To use SIT, you will need to add it to the ArcMap toolbar.

1. From the ArcMap standard toolbar, select **Customize** (Figure 4-10, #1).
2. From the **Customize** menu, select the **Customize Mode** (Figure 4-10, #2).

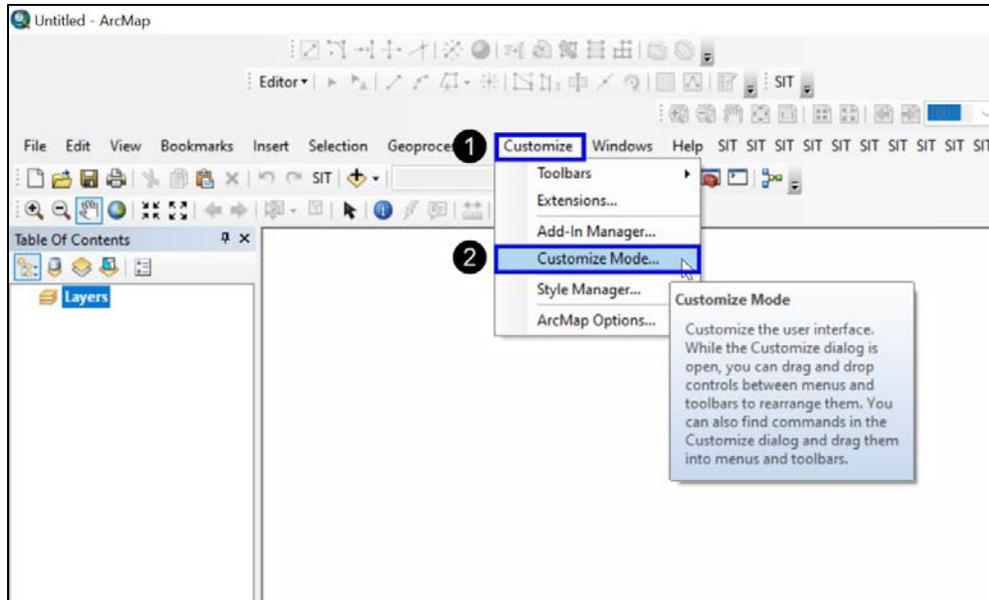


Figure 4-10. Selecting the 'Customize Mode...' option.

3. From the Customize window, select the **Commands** tab (Figure 4-11, #1).
4. From the Categories list, select DATIM (Figure 4-11, #2).
5. Drag the **SIT** tool icon from the **Commands** list (Figure 4-11, #3) onto an existing menu or toolbar.

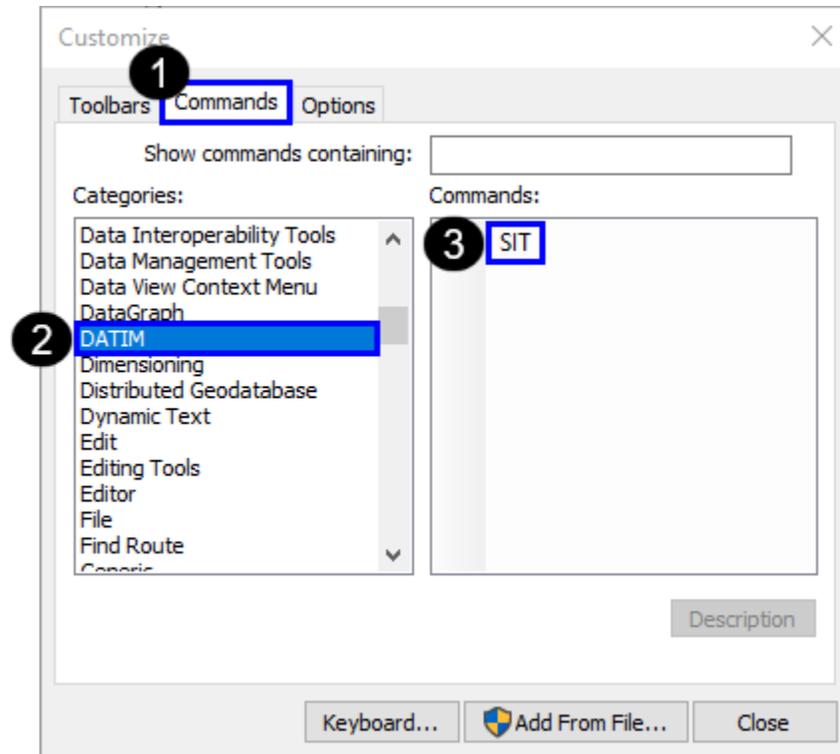


Figure 4-11. Adding SIT to the toolbar.

Uninstalling the SIT Add-in in ArcMap

1. If SIT is not properly updating to the newer version, then you must uninstall SIT from ArcMap. To do so, click **Customize > Add-In Manager > Delete this Add-in** (Figure 4-12). If the “Delete this Add-in” button is grayed out that means that the folder you are trying to delete is no longer existing. You will then have to recreate that folder on your computer to be able to delete it.

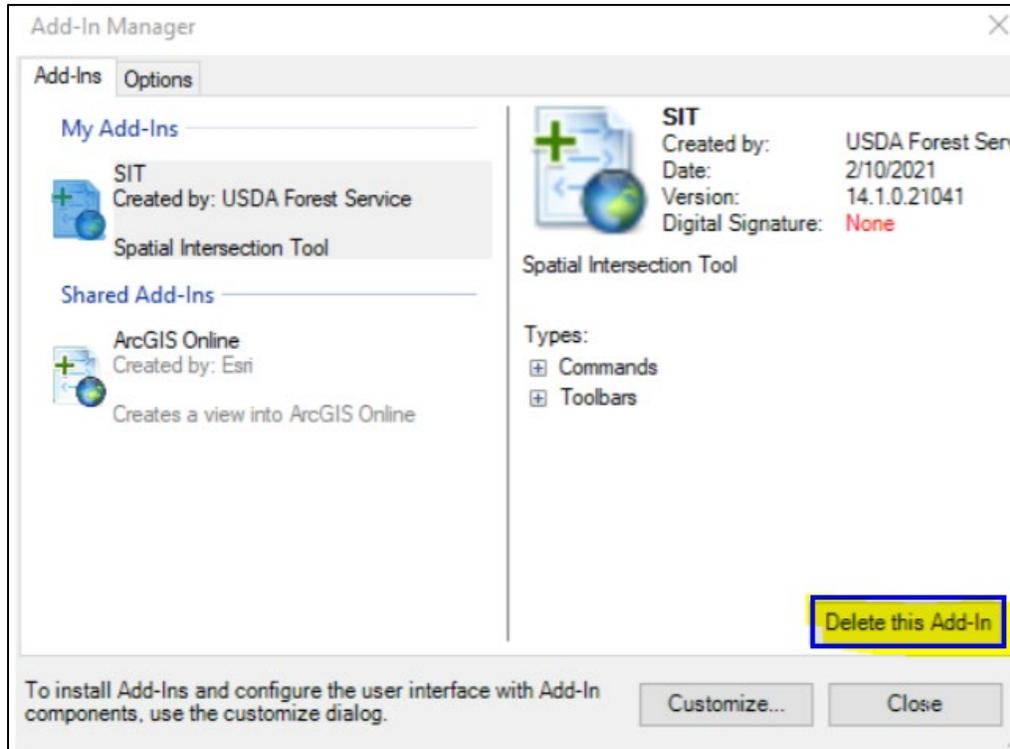


Figure 4-12. Delete this Add-In button.

2. Next, go to the **Options** tab and delete all folders referenced with the SIT Add-In (Figure 4-13, #1). On the bottom of the Add-In Manager, click on **Customize..** (Figure 4-13, #2).

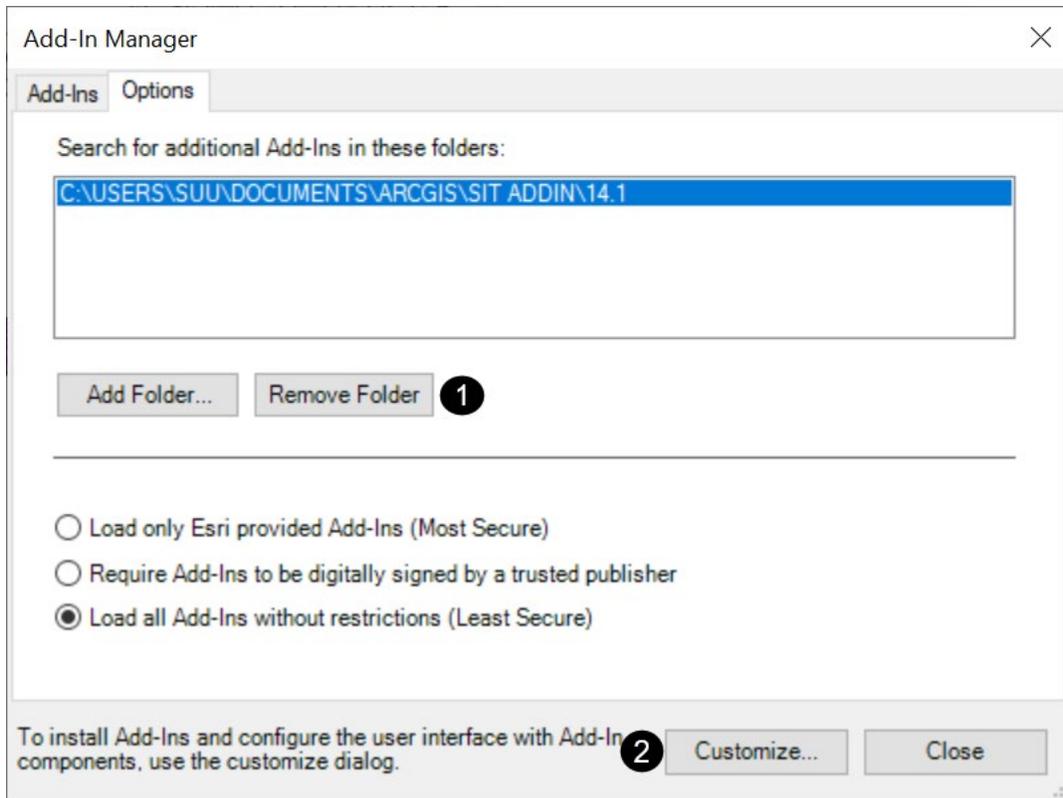


Figure 4-13. Remove folder and Customize buttons.

Anywhere you have a SIT Add-In in the toolbar, use your mouse to drag the Add-In outside of the toolbar until an X pops up (Figure 4-14).

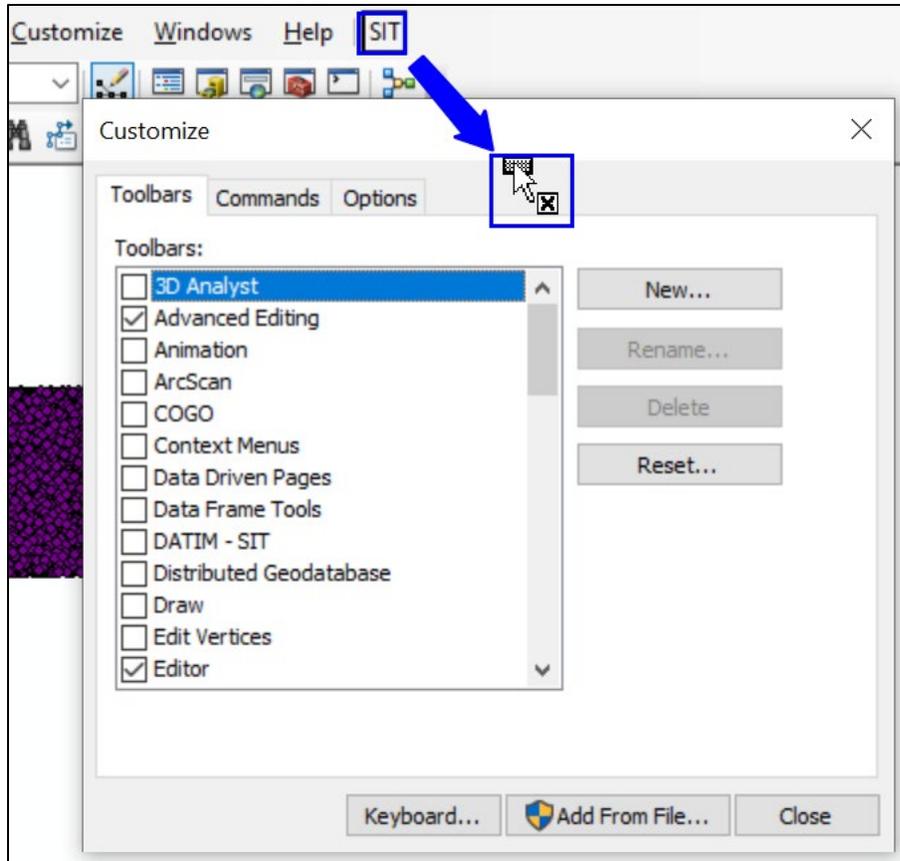


Figure 4-14. Removing SIT Add-In.

3. Then close your ArcMap application. Note that in the folder that contains your newest SIT Add-In, make sure only one SIT Add-In file exists in that folder.
4. If you are installing a newer version of SIT you will need to delete the old SIT Add-Ins before the newer version will work. To delete the outdated SIT Add-Ins go to **Customize > Add-In Manager > Delete this Add-in** and then **Close**.

How to tell the SIT Add-In version

There are multiple ways to see which version of the SIT Add-in you have downloaded to your ArcMap. You can hover your cursor over the SIT Add-in icon and press F1 on your keyboard to open a popup with the version number (Figure 4-15).

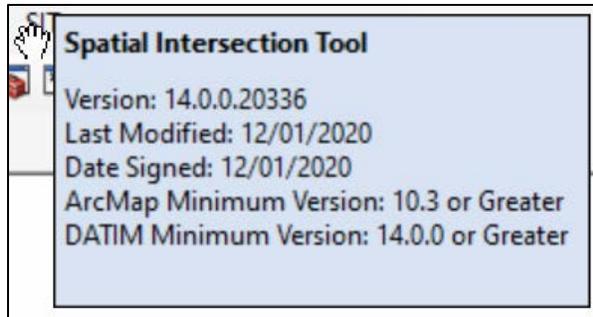


Figure 4-15. SIT icon version on toolbar.

You can also go to the ArcMap toolbar and select Customize, then Add-In Manager, and then click on SIT (Figure 4-16).

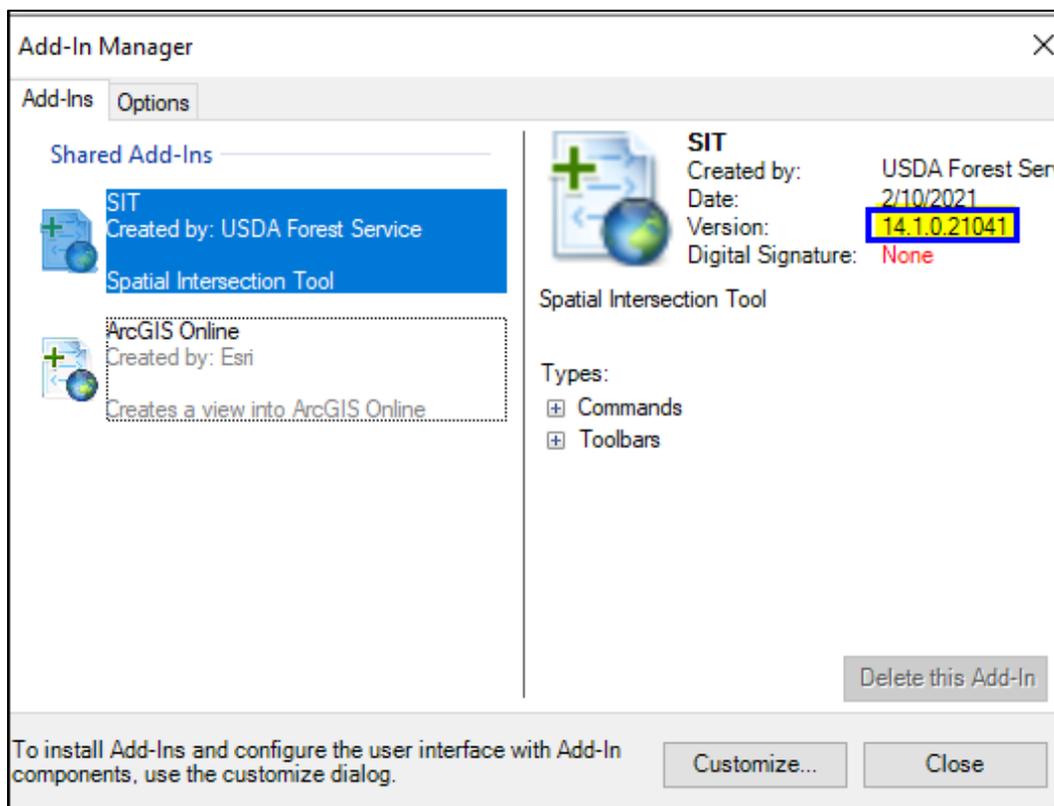


Figure 4-16. SIT version on the Add-In Manager.

Or you can launch SIT and completely log in and read the last modified and version number on the bottom of SIT (Figure 4-17).



Figure 4-17. SIT version on the SIT Add-In.

Working with SIT

Logging In

1. Select the data layers in your map and drag a .shp file or feature layer into ArcMap. The .shp file or feature layer will need to be loaded into ArcMap before opening SIT. This will ensure that the files in the Table of Contents in ArcMap are loaded into the pull-down menus in SIT so you can create fuzzed coordinates. For real coordinate intersections, a feature layer and a county layer with a county .fips code attribute is required.
2. Note, if you do not have a shapefile and want to report on a particular area, a polygon can be created in ArcGIS to do so. The polygon would need to have an attribute that you would then select in the SIT interface.
3. Once you have uploaded your .shp file or feature layer select the **SIT TOOL** icon from the ArcMap toolbar. This button will launch SIT.
4. The SIT Prerequisites window will pop-up. Select **Proceed** if you have met the requirements to run SIT. Next, a **Notice** window will pop-up giving you information on how to obtain and access permission for actual location for plots. For more information on obtaining permission for actual plot locations click on the links provided in this pop-up ([Figure 4-18](#)). Next, select **Continue**.

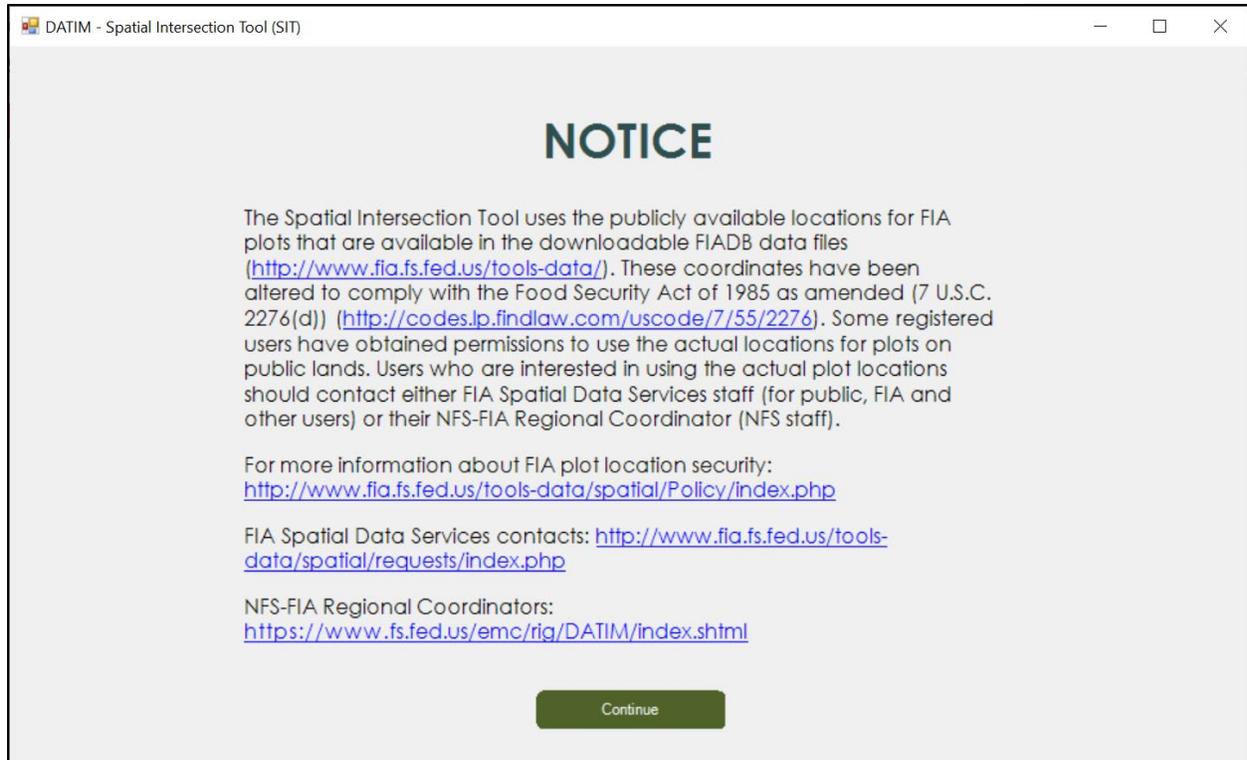


Figure 4-18. SIT Notice.

5. Ensure that **PROD** is selected from the Connection drop-down (Figure 4-19) and select **Login** to continue. If you are working at PROD you will only see PROD listed.

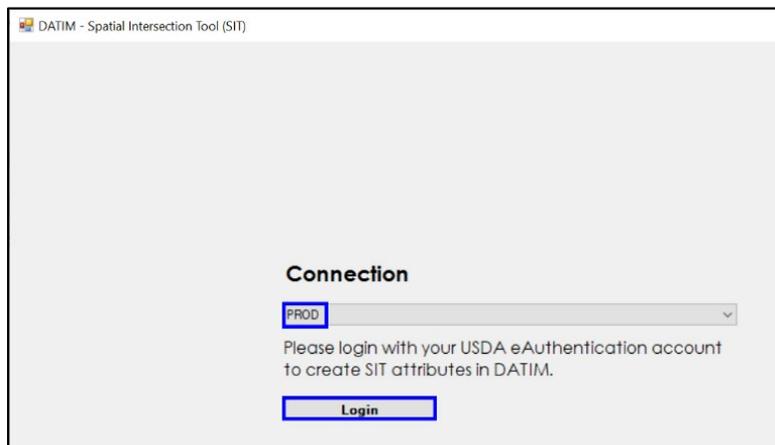


Figure 4-19. DATIM login required to run SIT.

6. You will be redirected to the eAuthentication page where you can provide your eAuth login credentials.
7. After logging into DATIM, you are automatically directed to the SIT page as shown in (Figure 4-20).

Plot Intensification

1. From the SIT page, note that you will have your Username and Selected Role (Figure 4-20, #1). The user will only be able to see the roles they have been assigned. To view all of the DATIM Roles select the **View DATIM Roles** link (Figure 4-20, #2). This will open a matrix showing all the available roles and the corresponding permissions they have. To learn more about SIT view the **About SIT** link (Figure 4-20, #3) to learn who SIT is provided by, the authors, version number, release date, Open-Source Libraries, and to access the DATIM User Guide. Select either the **Start Wizard** button (Figure 4-20, #4) or **Step 2: Create Point Feature Class** button to continue (Figure 4-20, #5).

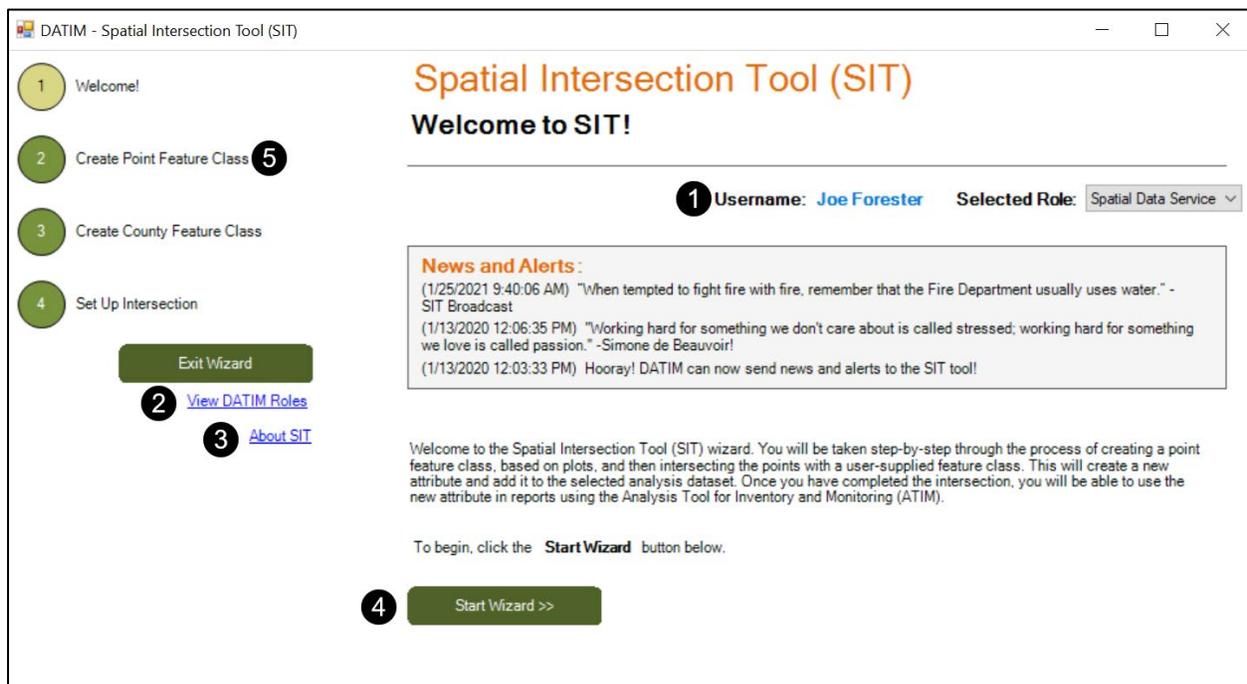


Figure 4-20. Selecting Step 2: Create Point Feature Class.

First, choose an Analysis from the Select Analysis list box (Figure 4-21, #1). Next, select the **Feature Class** to match the Layer's Projection (Figure 4-21, #2). Note that the layers shown are those in the table of contents in your ArcMap project (Figure 4-21, #3). Lastly, select the **Create Point Layer (Fuzzed Coordinates)** button (Figure 4-21, #4). Note that you cannot create spatial intersections for U.S. territories such as Puerto Rico, Guam, US Virgin Islands, Federated States of Micronesia, American Samoa, Northern Mariana, and Palau in SIT.

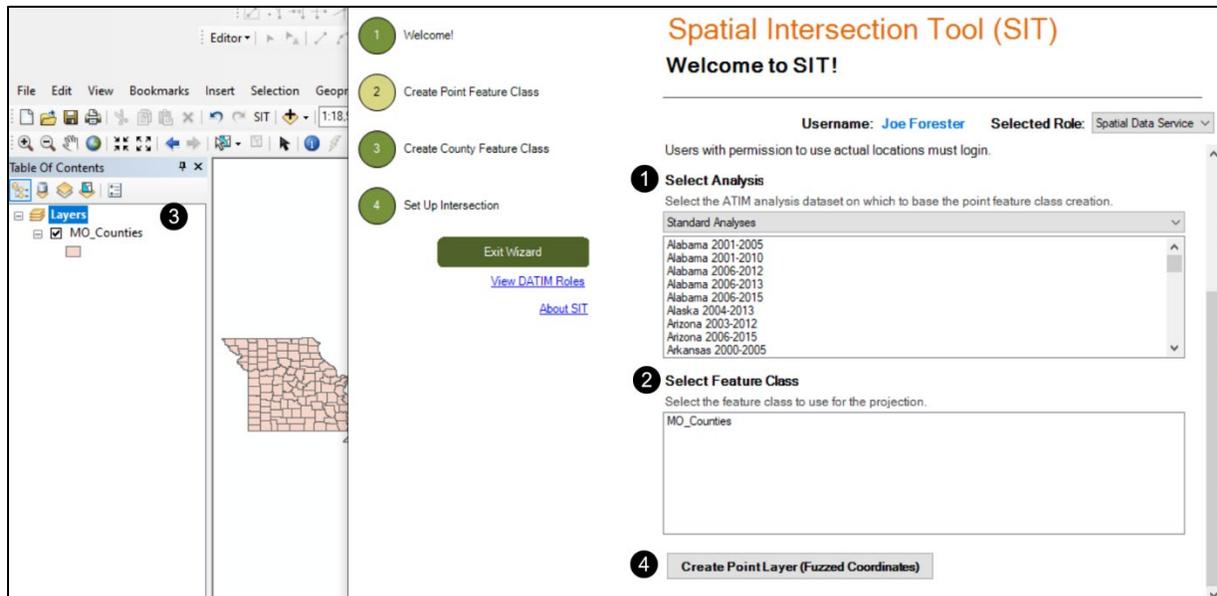


Figure 4-21. Selecting the Select Analysis, Feature Class, and Create Point Layer.

2. A **Save As** screen will pop-up, create a file name for your shape file and a destination to save it to.
3. At this point, SIT will create the point layer using the fuzzed coordinates. Once the point layer has been created, you will be returned to the SIT wizard's Set Up Intersection tab. The point layer dataset will now appear in the **Table of Contents** section of ArcMap (Figure 4-22).

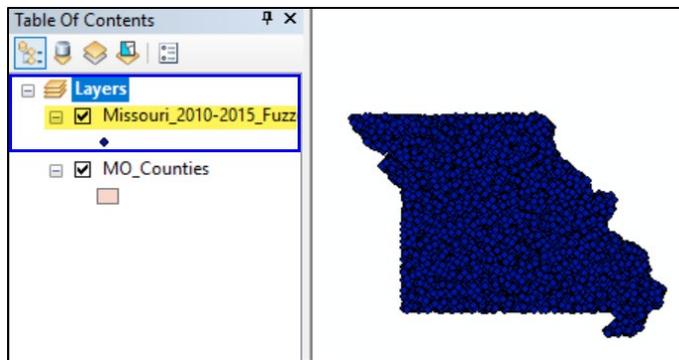


Figure 4-22. ArcMap with the Point Layer Dataset in the table of contents.

Note, if you are trying to reduce the size of your file do not remove the polygons in the county where a plot sits over the polygon.

4. If necessary, you can view the attributes associated with the layer that was just created. To do this, right click the dataset to view more options; select the **Open Attribute Table** option (Figure 4-23).

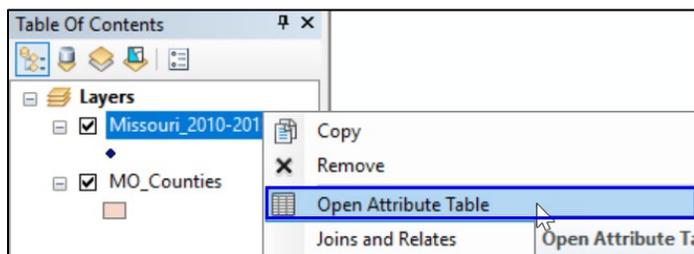


Figure 4-23. Opening an Attribute Table.

5. The Attribute Table will open in ArcMap. The **XCoord** and **YCoord** columns are the X and Y fuzzed UTM coordinates. The **sauf_cn** column consists of control numbers that will be used by ATIM and other applications, including SIT, to perform intersections and more.
6. Note, the layers should all be in the same projection in your map. The actual plot locations are never displayed in SIT.

How to do multi-state analysis with SIT variable via custom reports.

To create a multi-state analysis using SIT first login to DATIM as a DATIM Administrator. Then go to ATIM and [Create a New Analysis](#) (Figure 4-24).

The screenshot shows the ATIM dashboard interface. At the top, it says 'USDA FOREST SERVICE' and 'DESIGN AND ANALYSIS TOOLKIT FOR INVENTORY AND MONITORING'. The main heading is 'Analysis Tool for Inventory and Monitoring (ATIM)'. Below this, it says 'Welcome, Joe Forester'. The dashboard explains that ATIM is used for analyzing Forest Service resource inventory and monitoring data. It lists several tasks to get started: 'Reports: Live Analyses', 'Reports: Static Analyses', 'Create New Analysis' (highlighted), 'Custom Report Manager', and 'Custom Analysis Manager'. Each task has a brief description of what it does.

Figure 4-24. Creating a New Analysis.

Once in the Create New ATIM Analysis page. You now need to enter an email, analysis name, and description to begin (Figure 4-25, #1). You also have the choice to make your ATIM Analysis Public or Private (Figure 4-25, #2).

Create New ATIM Analysis

▶ Help 1

Email: datim@usda.gov

Analysis Name: New Analysis 1

Description: Analysis of 3 states: CA, OR, WA

223 characters remaining

Public Private 2

Figure 4-25. Creating a New Analysis in ATIM.

Next, select **State** and choose the multiple states that you would like to use to create an analysis (Figure 4-26, Figure 4-27, & Figure 4-28).

Select Datasets by State or National Forest

State

- AL
- AK
- AZ
- AR
- CA
 - California 2010 from FIADB
 - California 2015 from FIADB
 - 061501: California 2006-2015, Annual P2, includes Region 6 intensified off-grid plots, Sampled plots includes 2005 plot to substitute for 2015 non-sampled skipped visits
 - 061503: California 2001-2005 to 2011-2015, GRM, Annual P2, includes Region 6 intensified off-grid plots, Sampled plots

Figure 4-26. Selecting a CA dataset.

OR

- Oregon 2010 from FIADB
- Oregon 2015 from FIADB
 - 411501: Oregon 2006-2015, Annual P2, includes Region 6 intensified off-grid plots, Sampled plots includes 2005 plot to substitute for 2015 non-sampled skipped visits
 - 411503: Oregon 2001-2005 to 2011-2015, GRM, Annual P2, includes Region 6 intensified off-grid plots, Sampled plots

Figure 4-27. Selecting an OR dataset.

WA

- Washington 2011 from FIADB
- Washington 2015 from FIADB
 - 531501: Washington 2006-2015, Annual P2, includes Region 6 intensified off-grid plots, Sampled plots includes 2005 plot to substitute for 2015 non-sampled skipped visits
 - 531503: Washington 2002-2005 to 2012-2015, GRM, Annual P2, includes Region 6 intensified off-grid plots, Sampled plots

Figure 4-28. Selecting a WA dataset.

After selecting the states that you would like for your custom analysis the summaries will be displayed in the Selected Dataset Summaries box. Then select **Create Analysis** (Figure 4-29).

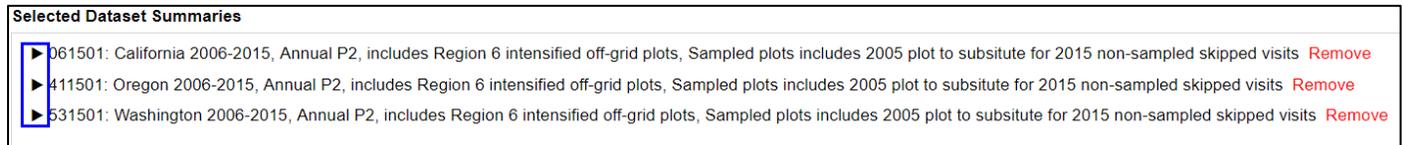


Figure 4-29. Selected Dataset Summaries.

When the analysis creation is complete, the Analysis Creation Successfully submitted pop up will display, select **OK** to continue. You should then get an email confirming that your new analysis has been created.

Go to ArcMap and navigate through the steps to complete plot intensification and create a SIT intersection using the analysis you just created (Figure 4-30).

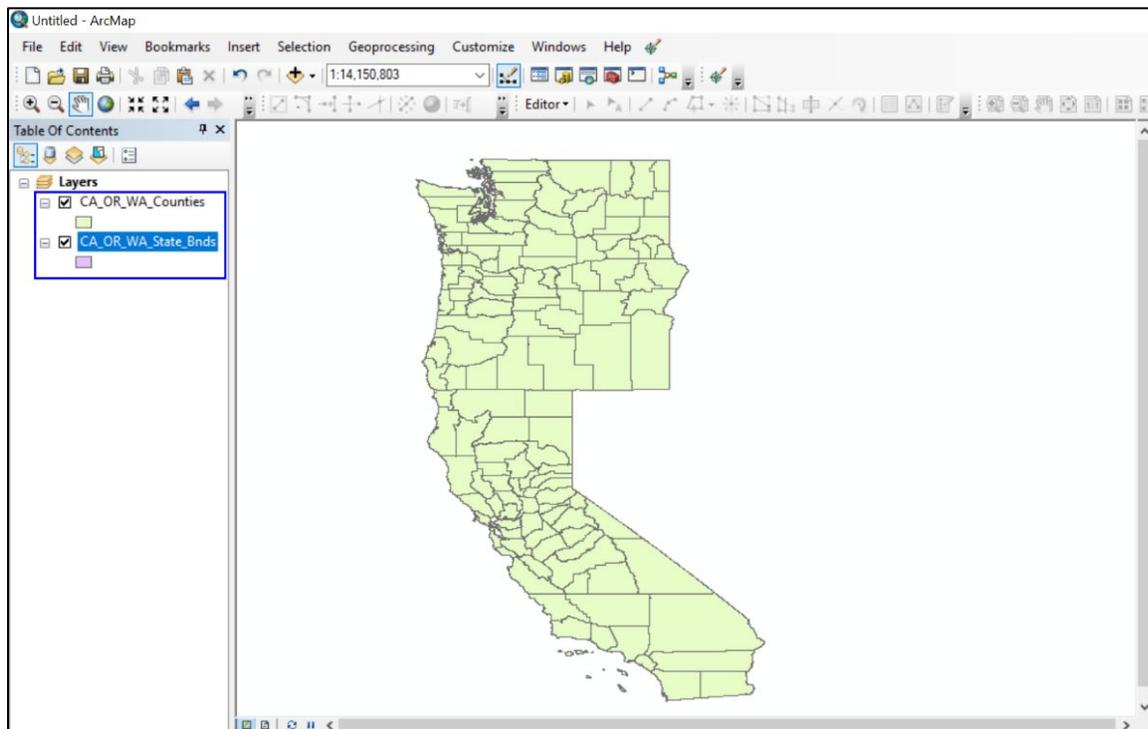


Figure 4-30. Adding multiple analyses.

Once the SIT intersection has been created, navigate back to ATIM and go to **Reports: Static Analyses** (Figure 4-31).

Analysis Tool for Inventory and Monitoring (ATIM)

Welcome, Joe Forester

ATIM is used for analyzing Forest Service resource inventory and monitoring data. The reports created in ATIM natural resource inventories.

With ATIM, you can run any of the standard reports for a given population of interest and inventory year (an additional ability to create new analysis datasets for use in reporting).

To get started, select one of the tasks below.

Reports: Live Analyses	<p>Create Live Reports i</p> <p>This report wizard will guide you through the process of creating "live" reports u</p>
Reports: Static Analyses	<p>Create Reports Using Static Analyses i</p> <p>This report wizard will guide you through the process of creating reports using "a non-changing dataset that they control". These datasets will not update au</p>
Create New Analysis	<p>Create a New Analysis Dataset (Administrative Users Only)</p> <p>If you are an administrative user and want to create a new analysis dataset for</p>
Custom Report Manager	<p>Custom Report Manager (Registered Users Only)</p> <p>If you are a registered user you can manage your custom reports, see the repo</p> <p>begin.</p>
Custom Analysis Manager	<p>Custom Analysis Manager (Registered Users Only)</p> <p>If you are a registered user you can manage your custom analyses, see the an</p> <p>to begin.</p>

Figure 4-31. ATIM Reports: Static Analyses.

In Step 2: Open Analysis select the arrowhead next to My **Custom** and find your custom analysis. It will appear in the Selected Analysis Summaries box (Figure 4-32).

- 1 Welcome!
- 2 Open Analysis
- 3 Select Reports
- 4 View Report Results

Exit Wizard

ATIM Report Wizard (Static)

Step 2: Open Analysis

▶ Help

Select Analysis by State, National Forest, or Custom

▶ States

▶ National Forests

▼ My Custom

10/11/2019 EF: 10/11/2019 EF

1ColoradoTest: 1ColoradoTest

2376test: 2376test

Analysis of 3 states: CA, OR, WA: Analysis of 3 states: CA, OR, WA

Analysis of Two States: CO, MO Analysis

apples and oranges: Hello everyone!

Arizona speed test: test

Copy Indiana 2010-2015 8-5-2019 MS: test

Create new Connecticut test: Create new Connecticut test

Description: Description

Selected Analysis Summaries

▶ Analysis of 3 states: CA, OR, WA Remove Export CSV

<< Welcome
Select Reports >>

Figure 4-32. Find your Custom report.

Select the arrowhead next to your analysis to expand the Analysis Summary (Figure 4-33).

Selected Analysis Summaries

Analysis of 3 states: CA, OR, WA [Remove](#) [Export CSV](#)

Analysis Summary
 Analysis of 3 states: CA, OR, WA
 Owner: Joe Forester
 Created By: Joe Forester
 Date Created: 8/20/2019 1:15:27 PM
 Last Modified By:
 Date Modified: 9/2/2020 7:50:19 AM
 Status: Loaded

DATIM Datasets in this Analysis

Name	Description	Created By	Load Date
443550477489998	061501: California 2006-2015, Annual P2, includes Region 6 intensified off-grid plots, Sampled plots includes 2005 plot to substitute for 2015 non-sampled skipped visits	FIADB	10/30/2019 08:45 AM

[Remove All](#)

Figure 4-33. Analysis Summary.

Scroll to the bottom to see your new Attribute Created by SIT in this Analysis (Figure 4-34).

Selected Analysis Summaries

		By
443550477489998	061501: California 2006-2015, Annual P2, includes Region 6 intensified off-grid plots, Sampled plots includes 2005 plot to substitute for 2015 non-sampled skipped visits	FIADB
424749309489998	411501: Oregon 2006-2015, Annual P2, includes Region 6 intensified off-grid plots, Sampled plots includes 2005 plot to substitute for 2015 non-sampled skipped visits	FIADB
433035729489998	531501: Washington 2006-2015, Annual P2, includes Region 6 intensified off-grid plots, Sampled plots includes 2005 plot to substitute for 2015 non-sampled skipped visits	FIADB

Attributes created by SIT in this Analysis

Name	Description	Created By	Date Created	Status	Delete
------	-------------	------------	--------------	--------	--------

[Remove All](#)

Figure 4-34. Attributes created by SIT.

SIT Attribute Manager

To use the SIT Attribute Manager login to DATIM. Then go to the SIT homepage and select **SIT Attribute Manager** (Figure 4-35). Use the SIT Attribute Manager to view, edit, and share your SIT Attributes and see SIT Attributes that are shared with you.

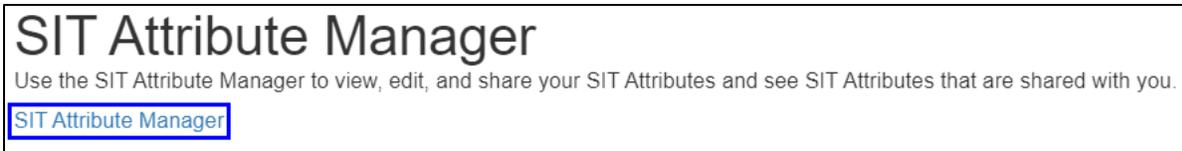


Figure 4-35. SIT Attribute Manager.

Once in the SIT Attribute Manager, you will be able to select **My SIT Attributes** (Figure 4-36, #1) and **SIT Attributes Shared With Me** (Figure 4-36, #2). First, Select a SIT Attribute (Figure 4-36, #3).

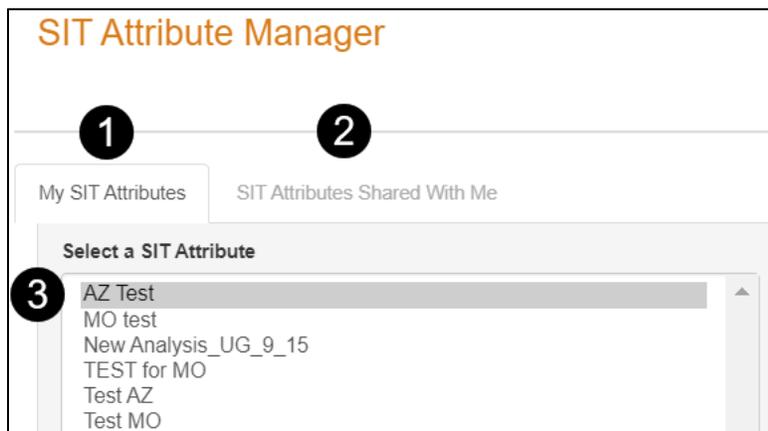


Figure 4-36. SIT Attributes.

Once selected, it will populate in the **My SIT Attributes** column. It will then give you all the information for the attribute selected such as the Layer Name, Description, Name of analysis dataset to intersect with, Description of the analysis dataset to intersect with, Intersection Created Date, Created by, Creator email, if the 250-acre rule was applied, Number of intersected plots, GIS contact first/last name, phone number and notes. **My SIT Attributes** are ones that you own. Here you can modify the SIT Attribute's description, contact information, or notes as well as delete the attribute entirely (Figure 4-37).

My SIT Attributes: These are SIT Attributes that you own. You can modify them, delete them, or share them with others.

Layer Name:	AZ Test		
Layer Description:	<input type="text" value="AZ Test"/>		
Name of analysis dataset to intersect with:	Arizona 2006-2015		
Description of the analysis dataset to intersect with:	ARIZONA 2015: ALL AREA, CURRENT AREA, CURRENT VOLUME		
Intersection Created Date:	9/18/2020 10:52:25 AM		
Intersection Created By:	JoeForester		
Creator email:	JoeForester		
250-acre rule applied?:	No		
Number of intersected plots:	11759		
GIS Contact First Name:	<input type="text"/>	GIS Contact Last Name:	<input type="text"/>
GIS Contact Phone Number:	<input type="text"/>		
Notes:	<input type="text"/>		

Figure 4-37. My SIT Attributes.

You can also view the users and teams that a SIT Attribute is shared with and share the attribute with new users and teams as needed **using the SIT Attribute Shared With Users section** ([Figure 4-38](#)).

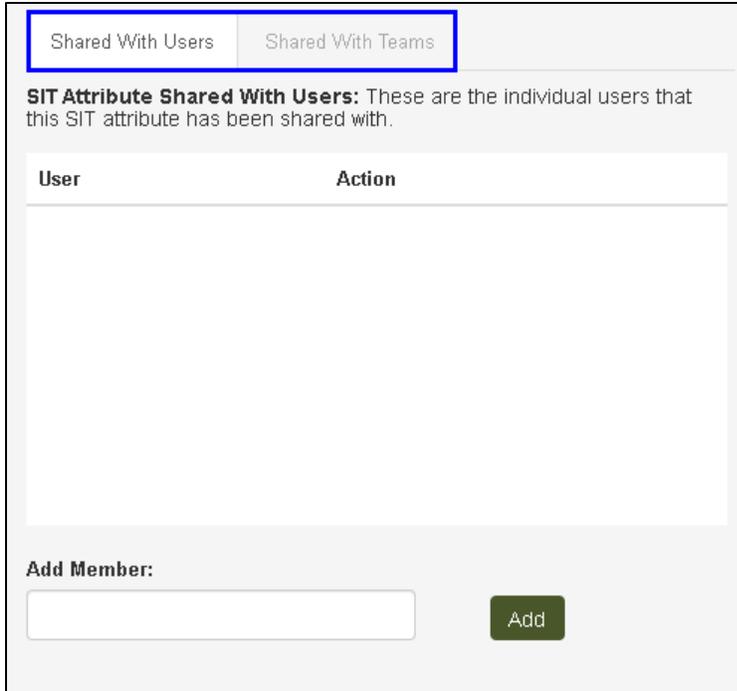


Figure 4-38. Shared SIT Attribute with User and Teams.

The **SIT Attributes shared With Me** tab displays the attributes that someone else owns that have been shared with you or a team that you belong to (Figure 4-39).

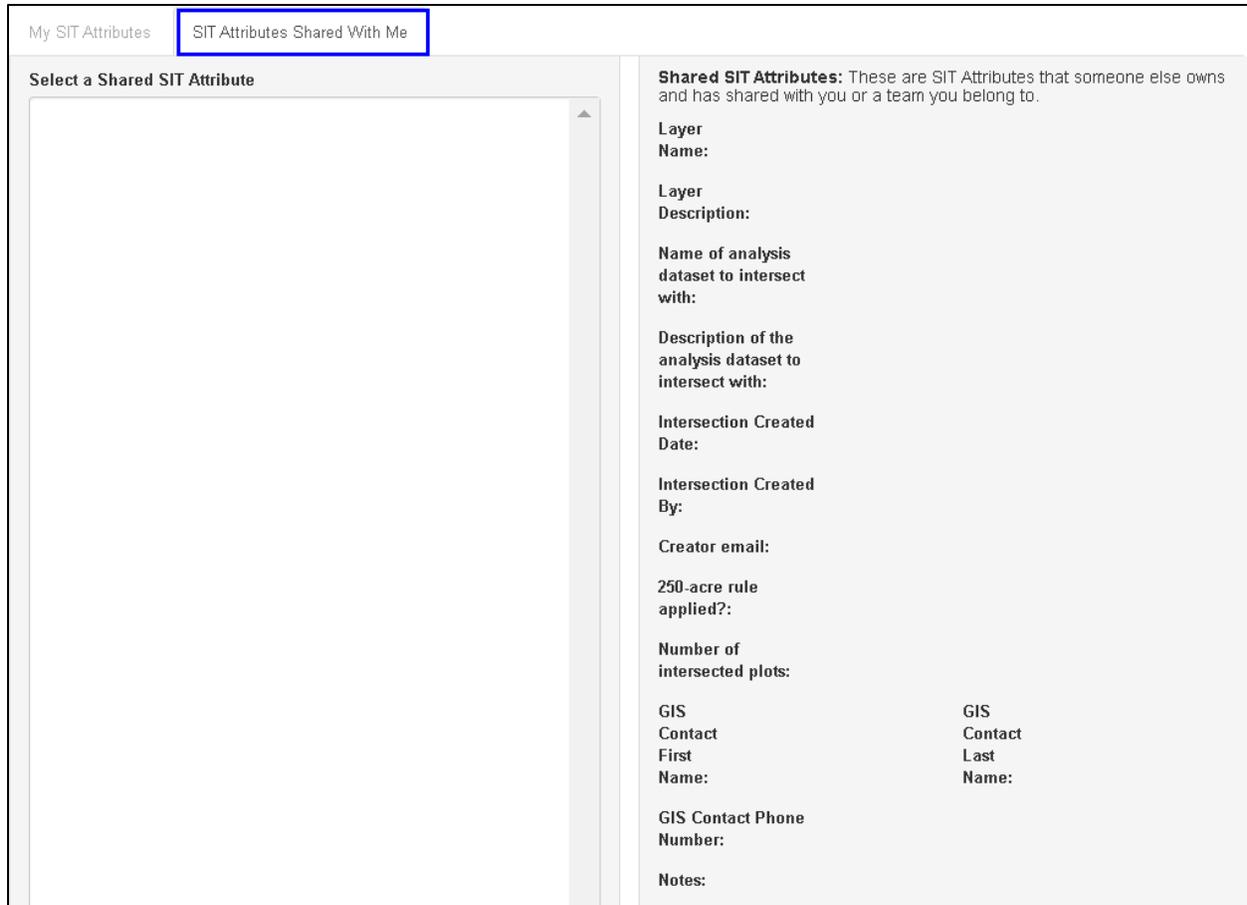


Figure 4-39. SIT Attributes Shared With Me.

You can **Return to SIT Home Page** by clicking the button in the upper right-hand corner (Figure 4-40).

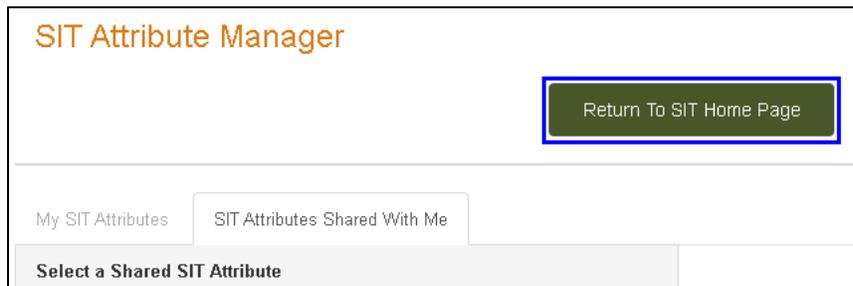


Figure 4-40. Return to SIT Home Page.

Chapter 5: DCS

The DATIM Compilation System (DCS) is currently undergoing major development changes and no information will be provided in this guide until development is complete. DCS is still available for use by administrative users, but no information will be provided in this guide about the current version. If you have any questions or wish to receive information about the current version of DCS, please email sm.fs.datim@usda.gov.

Chapter 6: Admin Tools

Introduction to Admin Tools

DATIM provides **Administration Tools** to allow users to manage roles, alerts, user accounts, teams, training contacts and training classes. Users can also enable DATIM system features.

Getting Started with Admin Tools

To access the **Administration Tools** page, select **Admin Tools** in the DATIM navigation menu. This page provides sub-links to the **Manage system-wide roles**, **Assign users to roles**, **Manage alerts**, **Manage user accounts**, **Manage teams**, **Manage training contacts**, and **Manage training classes** pages ([Figure 6-1](#)). Due to minimal use, information on **Manage training contacts** and **Mange training classes** is not contained in this guide.

The screenshot shows the 'Administration Tools' page. On the left is a green sidebar with the following links: Help, User Guide, Contact Us, Home, ATIM, DTIM, SIT, DCS, About DATIM, User Feedback, DATIM Training, Data Requests, Request data, Manage data requests, Admin Tools, Manage system-wide roles, Assign users to roles, Manage alerts, Manage user accounts, Manage teams, Manage training contacts, and Manage training classes. The main content area is titled 'Administration Tools' and contains the following sections:

- Please select from the available tools below.
 - [Manage system-wide roles](#)
 - [Assign users to roles](#)
 - [Manage alerts](#)
 - [Manage user accounts](#)
 - [Manage teams](#)
 - [Manage training contacts](#)
 - [Manage training classes](#)
- DATIM System Features i
 - Enable ETL on Request pages
 - Enable Custom Estimation Units
 - Enable actual plot coordinates
 - Enable ATIM Analysis CSV exports
 - Enable fuzzed SIT attribute exports in the ATIM CSV exports for attribute creators
 - Enable SIT Attribute Manager
- [Download DATIM Log Files](#)

Figure 6-1. Administration Tools page.

This page is also where you can enable **DATIM System Features** including ETL on request pages, custom estimation units, actual plot coordinates, ATIM analysis CSV exports, fuzzed SIT attribute exports in the ATIM CSV exports for attribute creators, SIT attribute manager, and download DATIM log files ([Figure 6-2](#)). Note, be cautious when making changes in the DATIM System Features because these changes will reflect for ALL users ([Figure 6-2](#)).

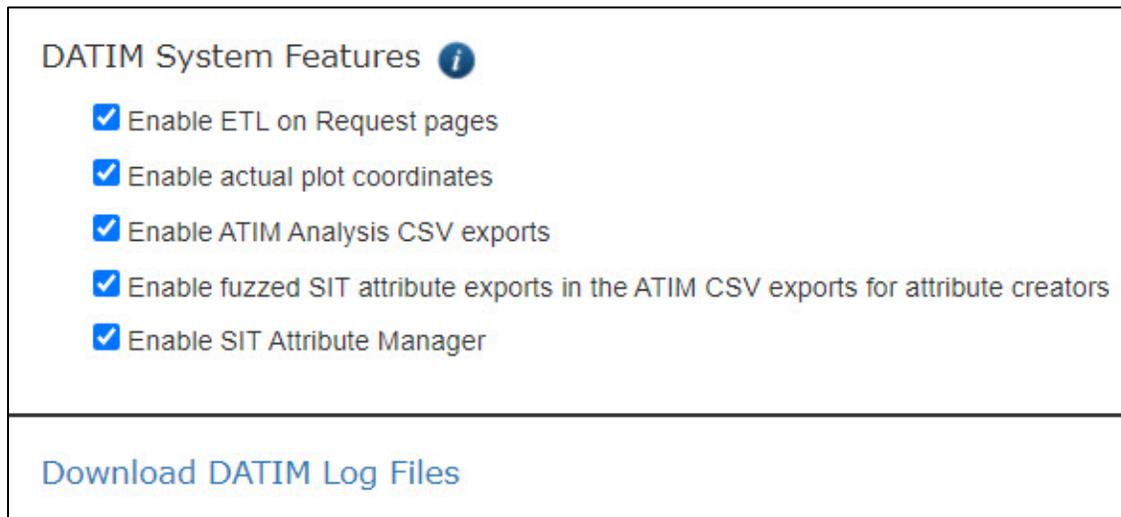


Figure 6-2. DATIM System Features.

Manage System-wide Roles

The **Manage System-wide Roles** page allows administrative users to manage users in the various DATIM roles. Use the appropriate manage link beneath the **Add/Remover Users** column to manage who has access to these roles. You can use the Search box to search for specific keywords on this page ([Figure 6-3, #1](#)). You can also use the column sorting filter on the **Role Name** column to sort the information alphabetically or in reverse order ([Figure 6-3, #2](#)). Choosing a link will direct you to the **Assign Users To Roles** page ([Figure 6-3, #3](#)).

Role Name 2	Add / Remove Users 3
Administrators	Manage Administrators
Regional Administrators	Manage Regional Administrators
Forest Administrators	Manage Forest Administrators
SIT Specialists	Manage SIT Specialists
Spatial Data Services	Manage Spatial Data Services
FIA Staff	Manage FIA Staff
Registered Users	Manage Registered Users
Training Administrators	Manage Training Administrators
Wheels	Manage Wheels
ETL Administrators	Manage ETL Administrators

Figure 6-3. Manage System-wide Roles.

Assign Users to Roles

The **Assign User Roles** page allows administrative users to configure the roles assigned to specific users. This page can be accessed in three ways:

1. selecting the **manage** link associated with a role on the **Manage Roles** page,
2. selecting the **Assign users to roles** link on the **Administration Tools** page, or
3. choosing the **Assign users to roles** in the DATIM navigation menu.

On this page you will find the **Showing** drop-down list, the **User Search** bar, the **User Identifier** column, **User Email Address** column, **User Friendly Name** column, and the **User Is in Role** column (Figure 6-4, #1-#6). The **Save** and **Cancel Changes** buttons are grayed out until a change is indicated, then the buttons will become available for enabling the change (Figure 6-4, #7).

Assign Users To Roles

Use this page to manage the members in the specified role.

1 Showing: Administrators

2 Search

3 User Identifier	4 User Email Address	5 User Friendly Name	6 User Is In Role
			<input checked="" type="checkbox"/>
			<input checked="" type="checkbox"/>
			<input type="checkbox"/>
			<input checked="" type="checkbox"/>

7 Save Changes Cancel Changes

Figure 6-4. Assign Users To Roles page.

On the **Assign Users To Roles** page use the Showing drop-down list to select a particular role in order to determine which users are assigned (Figure 6-5). Use the dropdown list to filter the users that appear in the user roles grid.

Assign Users To Roles

Use this page to manage the members in the specified role.

Showing: Administrators

- Administrators
- Regional Administrators
- Forest Administrators
- SIT Specialists
- Spatial Data Services
- FIA Staff
- Registered Users
- Training Administrators
- Wheels
- ETL Administrators

User Identifier	Address

Figure 6-5. Assign Users To Roles, Showing drop-down.

The **User Search Bar** (Figure 6-4, #2) allows you to filter users by text that is available in the User Identifier, User Email Address, or User Friendly name (Figure 6-4, #3, #4, & #5). Note that the search terms are not case-sensitive, however, spelling must be correct.

The **User Identifier** column displays the user identifying names of all the registered and administrative users in the DATIM application (Figure 6-4, #3). The data in this column can be sorted alphabetically or in reverse order.

The **User Email Address** column indicates the associated email with a user assigned to the role being assessed based on the Showing list (Figure 6-4, #4).

The **User Friendly Name** column notes the preferred name by the user (Figure 6-4, #5). To update your user friendly name, log into your account and hover over your name found in the upper right corner of the screen. Choose Manage user account to launch the User Profile dialog window (Figure 6-6). From here, you can change your friendly name to what you prefer in DATIM. Click **Update** to save your changes. Click **Cancel** to discard your changes.

Figure 6-6. User profile dialog window.

The **User Is In Role** column indicates whether a user is applied to a role or not (Figure 6-4, #6). The checkboxes without a checkmark mean that the user does not have the role applied to their user account. Reciprocally, if there is a

checkmark for user accounts that have the role applied to them. To update a user simply edit the checkmark next to their name for the desired change.

When you done making edits, choose the **Save** button on the bottom of the **Assign User Roles** page (Figure 6-4, #7). Alternatively, if you would like to disregard any changes you made to the user roles, click the **Cancel Changes** button (Figure 6-4, #7). If no changes have been made, the buttons are grayed out, preventing users from selecting these buttons.

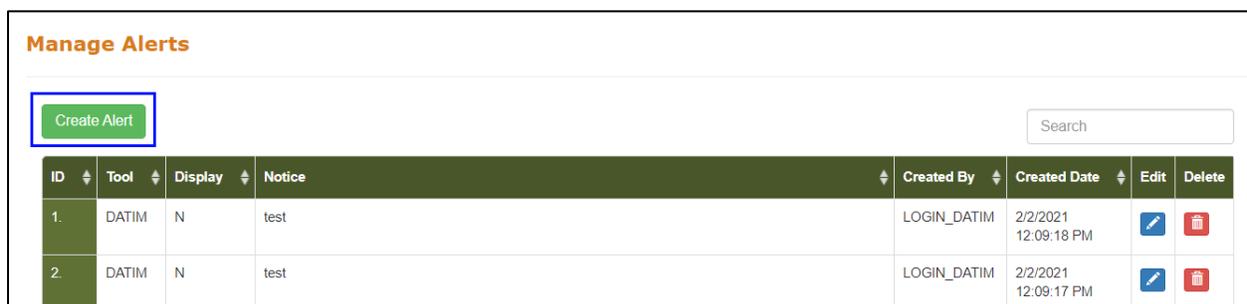
Manage Alerts

The **Manage Alerts** page provides administrative users with the ability to create new alerts, edit existing alerts, and delete existing alerts. These alerts are displayed on the DATIM homepage and inform users of possible issues they may experience when using DATIM. This page can be access in one of two ways:

1. choose the Manage Alerts link from the **Administration Tools** page,
2. or you can click the **Manage alerts** link in the **Admin Tools** submenu on the DATIM navigation menu.

Creating New Alerts

To create a new alert in DATIM, begin by accessing the **Manage Alerts** page. At the top of the page, select the **Create Alert** button (Figure 6-7).



The screenshot shows the 'Manage Alerts' page. At the top left, there is a green 'Create Alert' button. To the right is a search box. Below these is a table with the following data:

ID	Tool	Display	Notice	Created By	Created Date	Edit	Delete
1.	DATIM	N	test	LOGIN_DATIM	2/2/2021 12:09:18 PM		
2.	DATIM	N	test	LOGIN_DATIM	2/2/2021 12:09:17 PM		

Figure 6-7. The 'Create Alert' button on the Alert Manager page.

The **Create Alert** window (Figure 6-8) opens which holds a Tool, Display, and Notice Message section. Under **Tool**, there are radio buttons to allow you to select the tool for which the alert is for. Next, the **Display** has two radio buttons where you will configure whether the alert will display or not. You can create an

alert and keep it hidden by selecting No under the Display. Lastly, the **Notice Message** is where you can enter the text for alert.

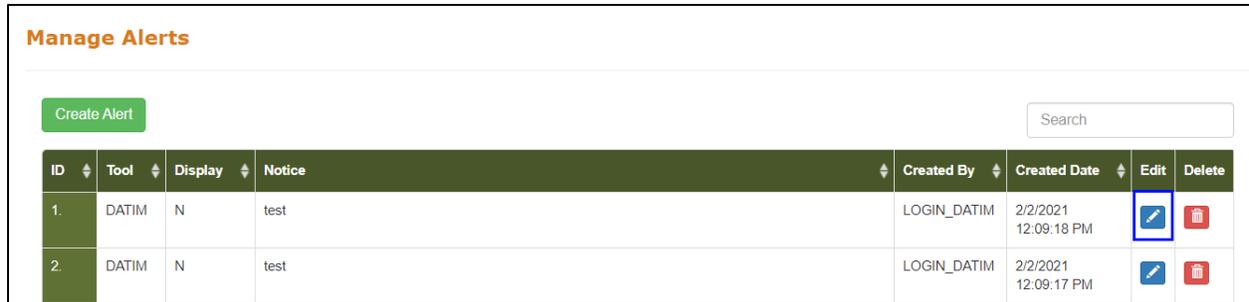
Figure 6-8. Create an alert dialog window.

When you are finished creating the alert choose the **Create** button, to save the alert. If you chose to display the alert, it will now be displayed on the **DATIM Welcome** page (Figure 6-9).

Figure 6-9. The new alert displayed on the DATIM Welcome page.

Editing Alerts

To edit an existing alert, begin by accessing the **Manage Alerts** page. Existing alerts will appear in the notice table. Find the alert you need to change and select its **Edit** icon (Figure 6-10).



Manage Alerts

Create Alert

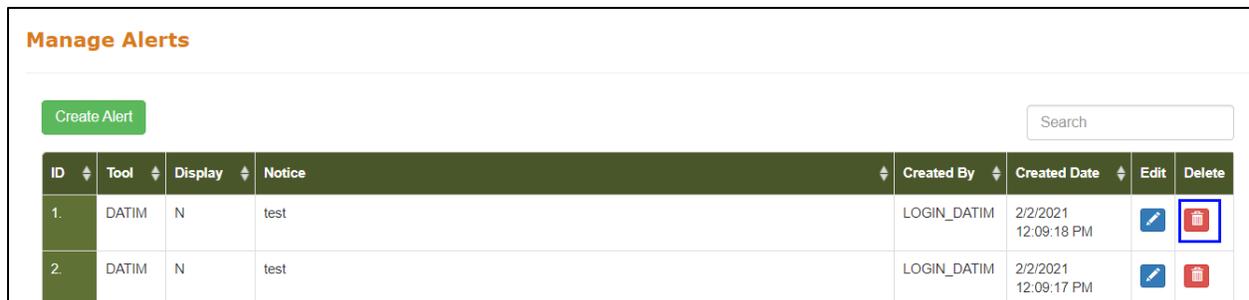
ID	Tool	Display	Notice	Created By	Created Date	Edit	Delete
1.	DATIM	N	test	LOGIN_DATIM	2/2/2021 12:09:18 PM		
2.	DATIM	N	test	LOGIN_DATIM	2/2/2021 12:09:17 PM		

Figure 6-10. Edit alert on the Manage Alerts page.

- The **Edit Your Detail** window pops up with the alert details prefilled. Make the necessary changes to the alert. Once finished, click the **Update** button, to save the edits made to the alert. The changes will be reflected on the **DATIM Welcome** page.

Deleting an Alert

To delete an existing alert, begin by accessing the **Alert Manager** page. Existing alerts will appear in the table. Find the alert you need to delete and select its **Delete** icon (Figure 6-11).



Manage Alerts

Create Alert

ID	Tool	Display	Notice	Created By	Created Date	Edit	Delete
1.	DATIM	N	test	LOGIN_DATIM	2/2/2021 12:09:18 PM		
2.	DATIM	N	test	LOGIN_DATIM	2/2/2021 12:09:17 PM		

Figure 6-11. Delete alert on the Manage Alerts page.

- A message will pop up asking you to confirm the deletion of the alert entry. Click **Yes** to delete the alert. If you would like to keep the alert, click **No**. If you delete an alert, it will no longer appear in the notice table on the **Alert Manager** page.

Manage User Accounts

The **Manage User Accounts** page allows users to view, edit, delete and add new DATIM user accounts (Figure 6-12). This page can be accessed in one of two ways:

1. choose the **Manager user accounts** link from the **Administration Tools** page,
2. or you can click the **Manage user accounts** link in the **Admin Tools** submenu on the DATIM navigation menu.

On this page you will find the **Create User** button, **Export Table to Excel** button, and the **Search Bar**. You may use the **Search Bar** at any time to search for specific keywords on the page. On the User Accounts table, you will see columns containing user information including **Action**, **Username**, **Email**, **Friendly Name**, **Is Locked Out**, and **Creation Date**.

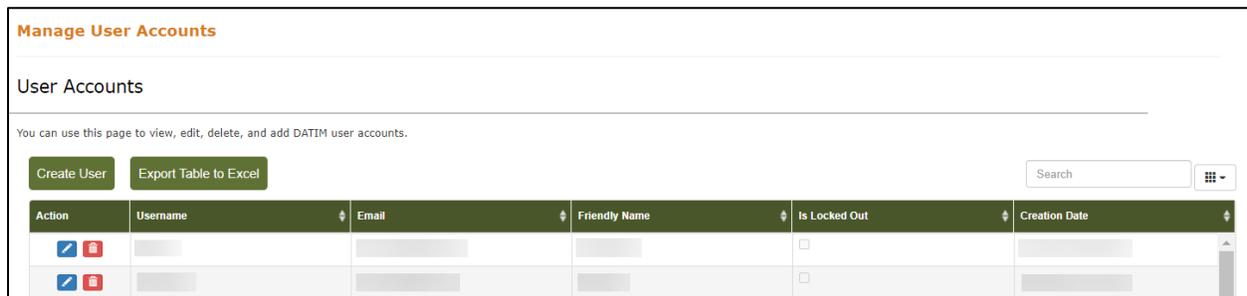


Figure 6-12. Manage User Accounts page.

Creating a New User

To create a new user, choose the **Create User** button on the Manage User Accounts page (Figure 6-13).

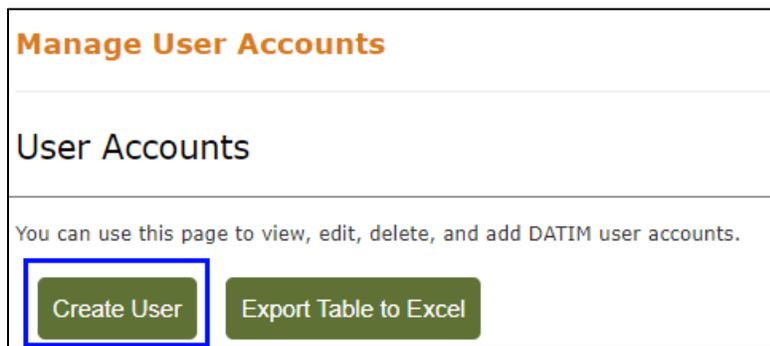
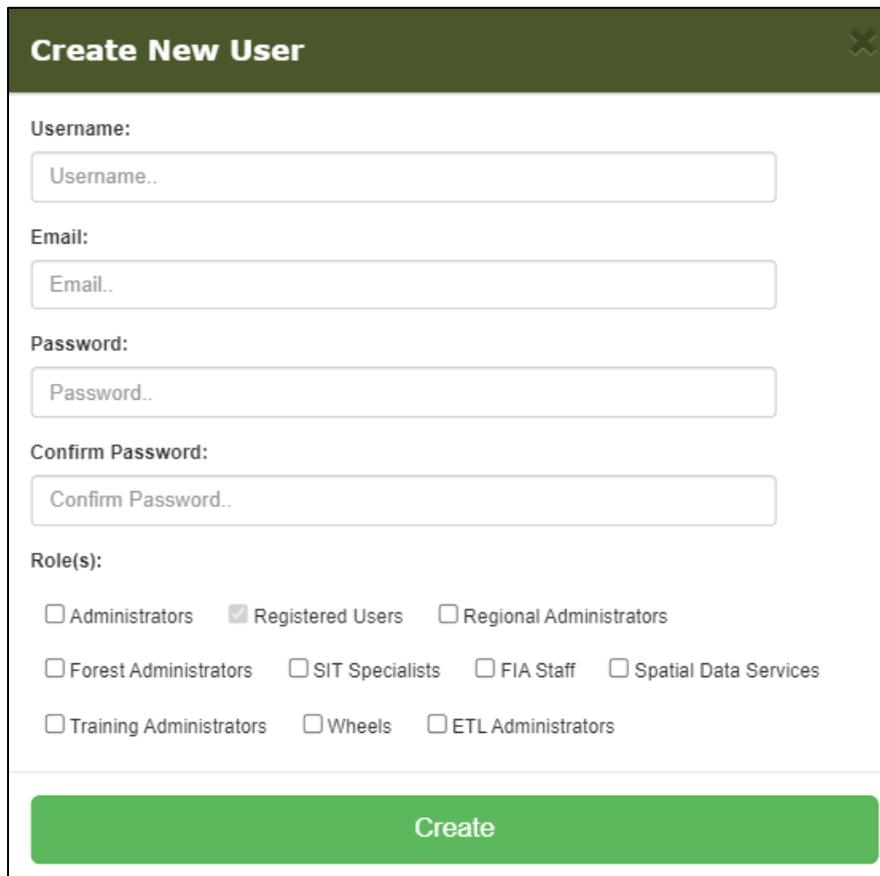


Figure 6-13. Create New User button on the Manage User Accounts page.

This will open the **Create New User** dialog window where you can create a new user by entering a **username**, **email**, **password**, and **user roles** (Figure 6-14). When complete, choose the Create button to finish creating a new user.



Create New User

Username:
Username..

Email:
Email..

Password:
Password..

Confirm Password:
Confirm Password..

Role(s):

Administrators Registered Users Regional Administrators

Forest Administrators SIT Specialists FIA Staff Spatial Data Services

Training Administrators Wheels ETL Administrators

Create

Figure 6-14. Create New User dialog window.

Editing a User

To edit a user, choose the **Edit Icon** on the Manage User Accounts page next to the user you would like to edit (Figure 6-15).

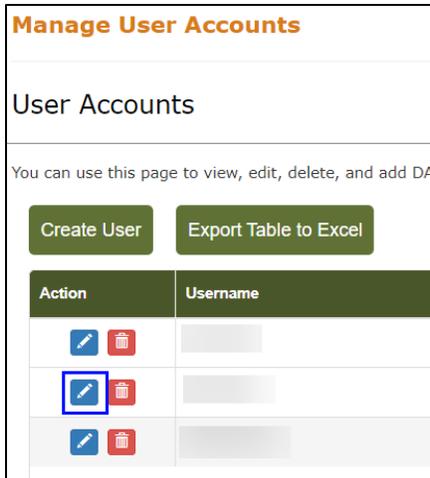


Figure 6-15. Edit Icon on the Manage User Accounts page.

This will open the **Edit User** dialog window containing the users information (Figure 6-16). Here you can edit the user by altering the **username**, **email**, **password**, **locked/unlocked**, and **affiliation**. After making your changes select Submit to save and update. If no changes are made the submit button will remain grayed out.

Edit User

Username:

Email:

Friendly Name:

New Password:

Confirm New Password:

User is: Locked Unlocked

Affiliation:

Figure 6-16. Edit User dialog window.

Deleting a User

To delete a user, choose to the **Delete Icon** next to the user you would like to delete on the Manage User Accounts page ([Figure 6-17](#)).

Manage User Accounts

User Accounts

You can use this page to view, edit, delete, and add DA

Action	Username
	<input type="text"/>
	<input type="text"/>
	<input type="text"/>

Figure 6-17. Delete Icon on the Manage User Accounts page.

A dialog window will open asking you to confirm whether or not you would like to delete the selected user. Choose **Yes** to delete or **No** to cancel.

Exporting Table to Excel

The **Export Table to Excel** feature allows users to export the User Accounts table and corresponding information to Excel. To export, choose the **Export Table to Excel** button on the Manage User Accounts page ([Figure 6-18](#)).

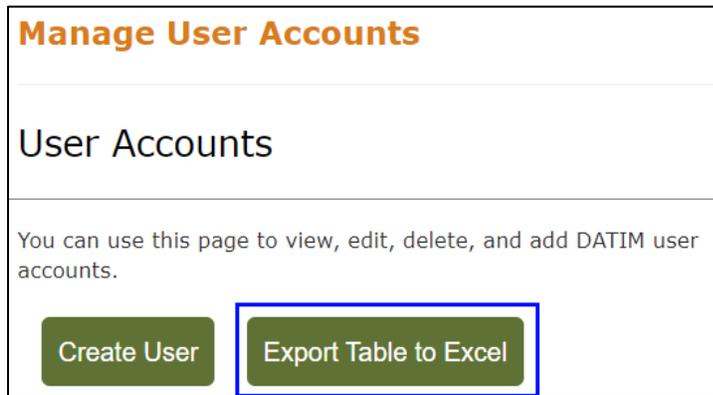


Figure 6-18. Export Table to Excel button on the Manage User Accounts page.

The **Export Table to Excel** dialog window will open where you can decide what information will be exported to Excel ([Figure 6-19](#)). You can choose from **username**, **email**, **affiliation**, **date created**, and **date last used**. After choosing what you would like to export choose **Export to Excel**. The table will now begin downloading to your local machine and you will be notified that an excel sheet has been created.

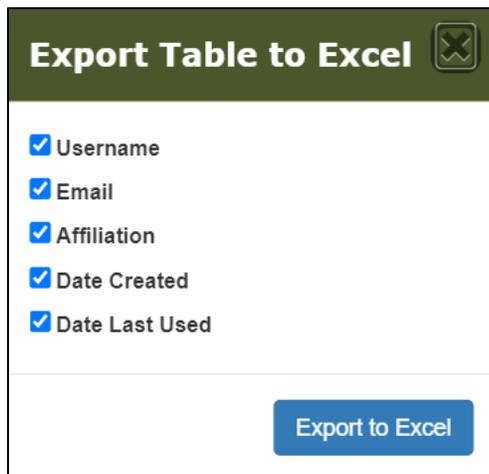


Figure 6-19. Export Table to Excel dialog window.

Manage Teams

The Manage Teams page allows users to create, view, edit, delete teams (Figure 6-20). These teams can be used to share reports generated in DATIM using ATIM and DTIM. This page can be accessed in one of two ways:

1. choose the **Manage teams** link from the **Administration Tools** page,
2. or you can click the **Manage teams** link in the **Admin Tools** submenu on the DATIM navigation menu.

On this page you will find the **Create New Team** button, **Search Bar**, and a list of teams that have been created. For the list of teams, you can view the **Team Name**, **Description**, **Owner**, **Shared Objects**, **View Members**, **Edit Details**, and **Delete**. You may use the **Search Bar** at any time to search for keywords to help you find a specific team.



Figure 6-20. Manage Teams page.

Create New Team

To create a new team choose the **Create New Team** button found on the Manage Teams page (Figure 6-21).

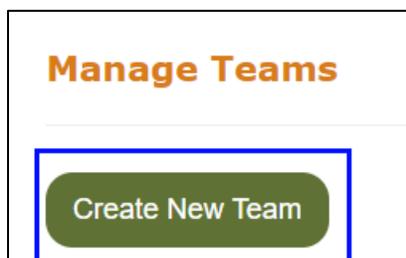


Figure 6-21. Create New Team button on the Manage Teams page.

The **Create New Team** dialog window will open where you can enter a **Team Name**, **Descriptions** and **Team Owner** (Figure 6-22). After adding the

information for your new team choose **Save Team** to create the team. Your team should now appear among the other teams in the list.



The image shows a dialog window titled "Create New Team" with a close button in the top right corner. It contains three input fields: "Team Name:", "Description:", and "Team Owner:". Below the input fields is a large green button labeled "Save Team".

Figure 6-22. Create New Team dialog window.

Viewing Shared Objects

To view shared objects for a team, choose the **Shared Objects** icon next to the team you would like to view on the Manage Teams page ([Figure 6-23](#)).



Figure 6-23. Shared Objects icon on the Manage Teams page.

This will take you to the **Share Objects** page where you can view information for the Shared Objects for the chosen team including **Shared Object**, **Object Type**, **Owner**, **Last Modified**, **Last Modified By**, and **Stop Sharing** ([Figure 6-24](#)).

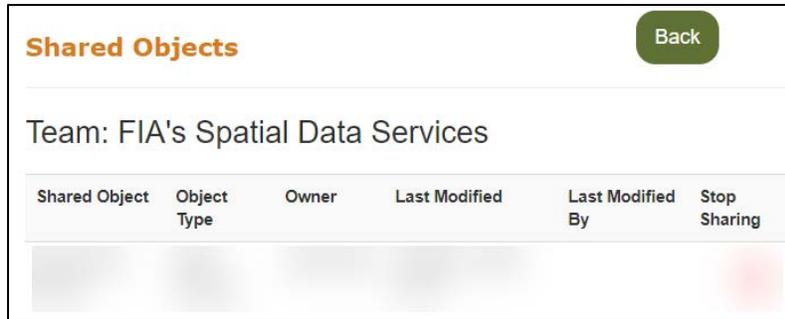


Figure 6-24. Shared Objects page.

Viewing and Adding Team Members

To view team members, choose the **View Members icon** next to the team you would like to view (Figure 6-25).



Figure 6-25. View Members icon on the Manage Teams page.

This will take you to the **Manage Team Members** page where you can add new, view, edit, or delete team members (Figure 6-26).

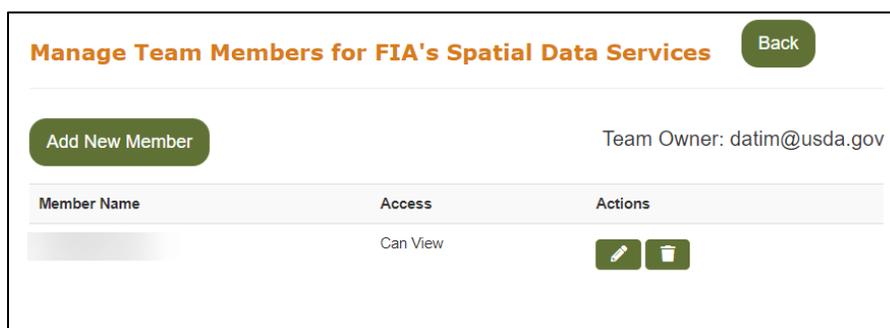


Figure 6-26. Manage Team Members page.

To add a new member, choose the **Add New Button** on the Manage Team Members page (Figure 6-27).

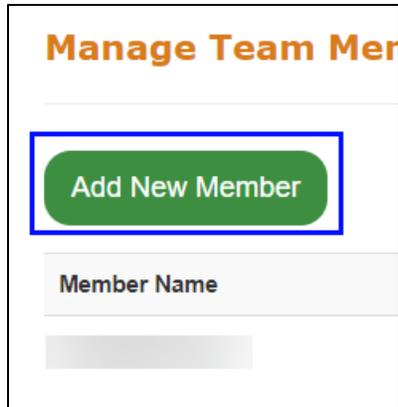


Figure 6-27. Add New Member button on the Manage Teams page.

An **Add Team Member** dialog window will open where you can add a **User** and their **Access** privileges (Figure 6-28). When you have chosen a team member and assigned access choose the **Save Team Member** to add them to the team. The member you added will now appear in the list of team members on the Manage Team Members page.

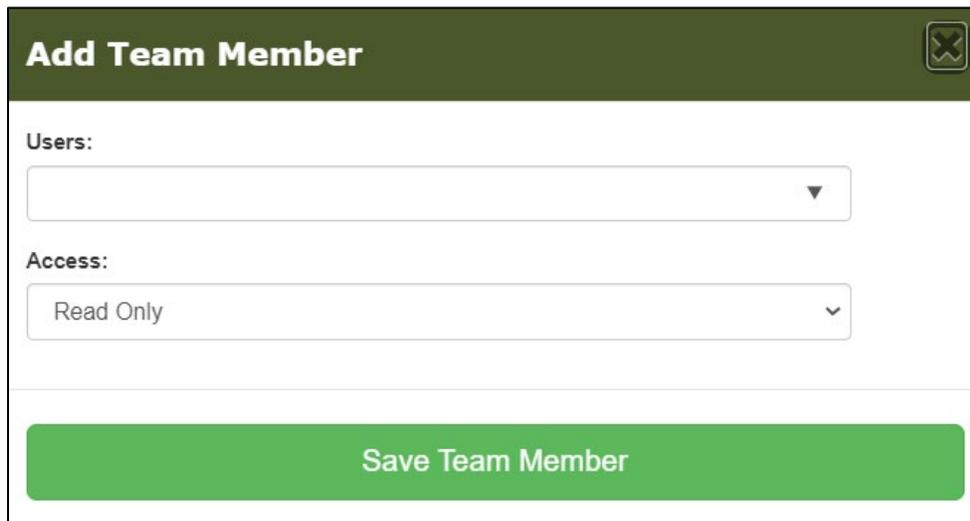


Figure 6-28. Add Team Member dialog window.

To edit a team member's access, choose the **Edit icon** next to their name on the Manage Team Members page (Figure 6-29).

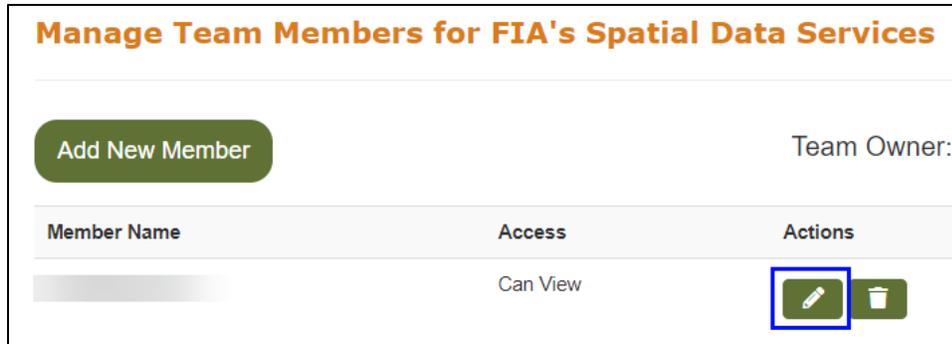


Figure 6-29. Edit icon on the Manage Team Members page.

An **Edit Team Member** dialog window will open where you can edit the **User** and their **Access** (Figure 6-30). When complete with edits choose the **Update Team Member** button to save your changes. If no changes were made the **Update Team Member** button will remain grayed out.

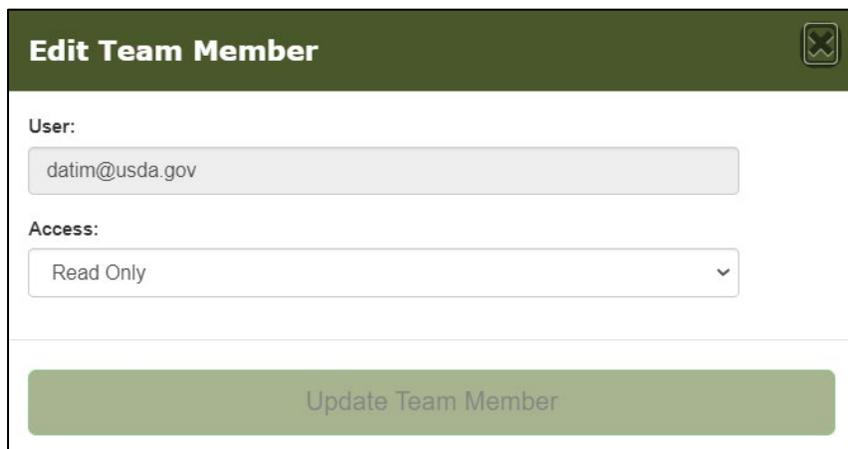


Figure 6-30. Edit Team Member dialog window.

To remove a member from the team, choose the **Delete icon** next to the member you would like to delete on the Manage Team Members page (Figure 6-31).

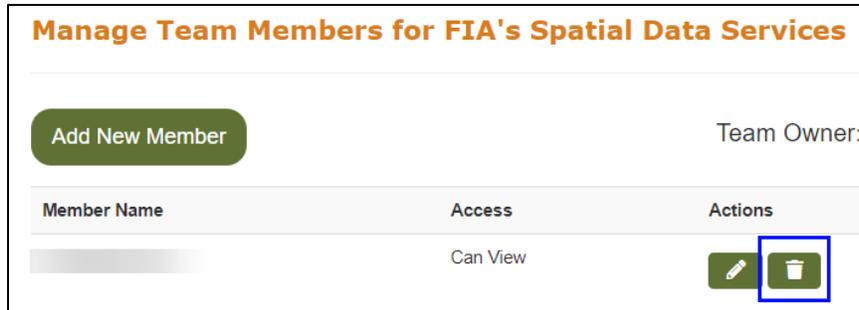


Figure 6-31. Delete icon on the Manage Team Members page.

A window will pop-up to confirm that you would like to delete the user. Choose **Yes** to delete and **No** to return to the Manage Teams page.

Editing Team Details

To edit team details, choose the Edit icon next to the team you would like to edit on the Manage Teams page (Figure 6-32).

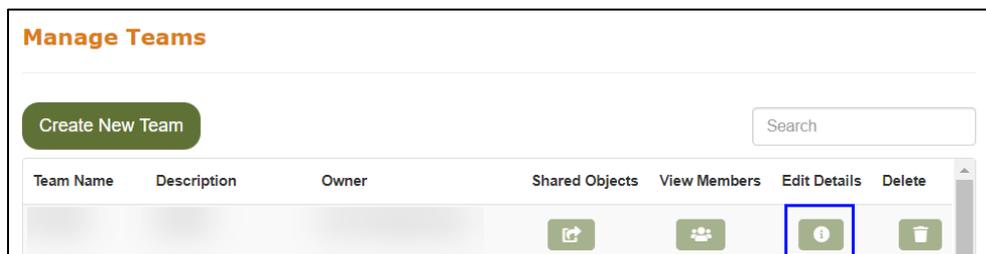


Figure 6-32. Edit Details icon on the Manage Teams page.

The **Edit Details** dialog window will open where you can edit the **Team Name**, **Description**, and **Change Team Owner** (Figure 6-33). When finished with your changes choose the **Save Team** button. Your updates will now be reflected on the Manage Teams page.

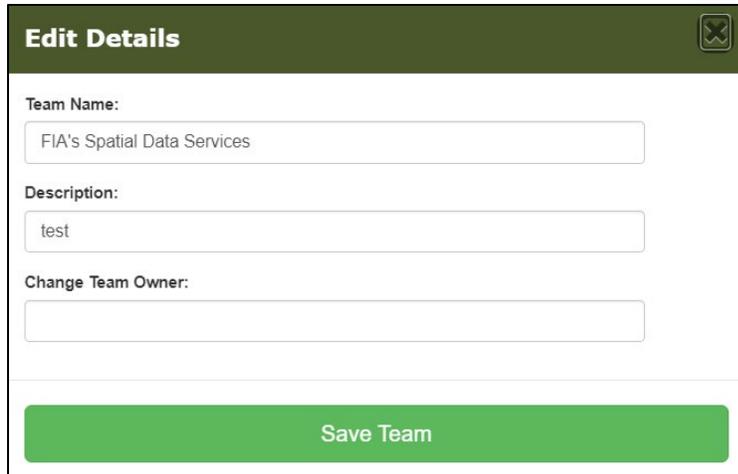


Figure 6-33. Edit Details dialog window

Deleting a Team

To delete a team, choose the **Delete icon** next to the team you would like to delete on the Manage Teams page ([Figure 6-34](#)).



Figure 6-34. Delete icon on the Manage Teams page.

A dialog window will open asking you to confirm the deletion of the selected team. To delete choose Yes, to abort choose No.

Chapter 7: Glossary of Terms

administrator

A user role assigned in DATIM that grants the user the same permissions and accessibilities assigned to the Registered User, Forest Administrator, and Regional Administrator, as well as additional permissions to assign and manage the roles of other DATIM users. Also known as the “Super-User”.

analysis report (ATIM)

The estimates generated and stored by ATIM for the forest inventory variable selected by the user. The estimates are based on the sampling design used and the estimation method (which can be modified by the user), and organized into pages, rows, and columns according to the categories and variables that the user assigns to them. An analysis report is designed by the ATIM user, and is associated with a single analysis.

ArcGIS

The geographic information system (GIS) platform developed by the company Esri for working with maps and geographic information.

ArcMap

The main application used in ArcGIS for Desktop for mapping, editing, analysis, and data management. ArcMap is used for all 2D mapping work and visualization.

ATIM

ATIM (Analysis Tool for Inventory and Monitoring) is a DATIM tool used for creating statistically defensible analyses and reports. This tool assists users in analyzing forest and vegetation data to derive estimates of current conditions and trends for an area of interest, such as for answering monitoring questions posed in DATIM.

ATIM analysis

The resource inventory datasets associated with the selected population of interest stored by ATIM, along with the associated estimation units, data points, and attributes.

attribute

A discrete or continuous variable, usually associated with the classification or measurement of area or vegetation (Bechtold and Patterson 2005). The variable can be collected in the field or calculated using equations and algorithms. Examples of field collected attributes include tree diameter, tree height, slope, aspect, county code, and owner group code. Examples of computed attributes included tree and area expansion factors, and tree volume.

biomass

(1) *Ecology* the total dry organic matter at a given time of living organisms of one or more species per unit area (species biomass) or of all the species in the community (community biomass). (2) The living or dead weight of organic matter in a tree, stand or forest in units such as living or dead weight, wet or dry weight, ash-free weight, etc. (3) *Harvesting* the wood product obtained (usually) from in-woods chipping of all or some portion of trees including limbs, tops, and unmerchantable steps, usually for energy production (Helms 1998).

Citrix

Software that enables organizations to securely access Windows-based line-of-business applications over the Internet with just a web browser. The software makes centrally maintained information and applications easy to update and retrieve (Anon. 2009). Used in DATIM to provide user access to ArcGIS and the Spatial Intersection Tool.

classification

(1) The process of grouping similar entities into names types or classes based on shared characteristics. (2) The grouping of similar types (in this case, vegetation) according to criteria (in this case, physiognomic and floristic) that are considered significant for this specific purpose. The rules for classification must be clarified before the types are identified in the classification standard. The classification methods should be clear, precise, quantitative where possible, and based on

objective criteria so that the outcome will be the same no matter who developed the definition (or description). Classification by definition involves definition of class boundaries (FGDC 1997, citing UN-EP/FAO 1995).

condition

A change in land use or a change in vegetation that occurs along more-or-less distinct boundaries. Reserved status, owner group, forest type, stand-size class, regeneration status, and stand density are used to define forest conditions (Burrill et al. 2018).

coordinates

In mapping, pairs of numbers that express horizontal distances along orthogonal axes; or, triplets of numbers measuring horizontal and vertical distances (FGDC 1998).

dataset

A collection of estimation units and data points that are collectively exhaustive and mutually exclusive (Brand and Alegria 2011).

DATIM

DATIM (Design and Analysis Toolkit for Inventory and Monitoring) is a suite of software tools designed by a team of resource inventory and forest planning specialists from the National Forest System (NFS) and Research & Development (R&D) of the United States Department of Agriculture (USDA) Forest Service (FS). The application is intended to improve natural resource inventory and monitoring designs and data analyses by providing nationally consistent tools to access corporate databases.

DATIM dataset

The collection of data and information used to produce estimates of a given suite of metrics for a population of interest in ATIM. A DATIM dataset includes a particular set of estimation unit(s), a stratification scheme, and the collected field data (resource data) for the attributes and timeframe(s) of interest.

DCS

DCS (DATIM Compilation System) is a DATIM tool used by national and regional administrators to load external data into the DATIM DataMart for use in DATIM. Users are able to select datasets from the DATIM DataMart, run the data through the Forest Vegetation Simulator (FVS) to compute additional data fields, such as habitat types and individual tree biomass, and then store the results in DATIM. The different compiler modules used in DATIM were designed to meet regionally specific needs.

double sampling for stratification

A method that uses two random samples, where the second sample is a stratified subsample of the first sample (Cochran 1977). The first-phase sample is for estimating proportions of the population found in various strata in order to calculate stratum weights. The second-phase sample is for making observations of random variables in the sample units (Chojnacky 1998).

down woody material

Dead pieces of wood >3.0 inches in diameter. Down woody material includes downed, dead tree and shrub boles, large limbs, and other woody pieces that are severed from their original source of growth or are leaning more than 45 degrees from vertical (Bechtold and Patterson 2005).

DTIM

DTIM (Design Tool for Inventory and Monitoring) is a DATIM tool used for designing more efficient monitoring plans based on user-selected objectives, questions, and metrics. If available data are insufficient to obtain statistically defensible estimates of current conditions and trends, then DTIM helps the user plan for the additional sampling needed.

DTIM project

The entire set of selections and inputs made using the various tab-based forms in DTIM, along with the resulting study design generated by DTIM based on the user's selections and inputs. It consists of the monitoring plan's objectives, questions, and metrics; area information; precision values; number of additional plots to be sampled; and the cost of the monitoring design.

E-Authentication

USDA e-Authentication account identification consists of a User ID, a password, and a customer profile that enables one to access a range of USDA applications. It provides the convenience of transacting business with USDA online, anytime, anywhere (Anon. 2009).

EMC

[Acronym]: Ecosystem Management Coordination

Esri

[Environmental Systems Research Institute¹⁵](http://www.esri.com/) the international supplier of ArcGIS.

estimate (ATIM)

The variable to be estimated in the analysis report.

ETL

[Acronym]: Extract, Transform, Load. The process by which a resource inventory dataset is extracted, transformed, and loaded into the DATIM DataMart and made available to the user as DATIM datasets.

ETL Project (DCS)

A dataset that has been extracted from an external data source like FIADB, FSVeg, and NIMS and then transformed and loaded into the DATIM DataMart.

¹⁵ <http://www.esri.com/>

evaluation

The comparison of dynamic sampling results to management objectives consisting of predetermined standards, expected norms, threshold values, and/or trigger points (Brohman and Bryant 2005).

FIA

[Acronym]: Forest Inventory and Analysis

FIADB

[Acronym]: [Forest Inventory and Analysis Database¹⁶](#)

Field Sampled Vegetation (FSVeg)

Field Sampled Vegetation [FSVeg¹⁷](#) is the pre-processor tool for FIA data that stores data about trees, fuels, down woody material, surface cover, and understory vegetation. FSVeg supports the business of the common stand exam, fuels data collection, permanent grid inventories, and other vegetation inventory collection processes.

forest administrator

A user role assigned in DATIM that grants the user access to DATIM datasets within a particular Forest Service forest. This administrator can create analytical

¹⁶ <http://www.fia.fs.fed.us/library/database-documentation/>

¹⁷ <http://www.fs.fed.us/nrm/fsveg/index.shtml>

report templates for a Forest for use by all Registered Users, but does not have access to actual plot locations and other confidential information.

forest land

Forest land has at least 10 percent canopy cover of live tally tree species of any size or has at least 10 percent canopy cover of live tally species in the past, based on the presence of stumps, snags, or other evidence (Bechtold and Patterson 2005).

Forest Vegetation Simulator (FVS)

[Acronym]: [Forest Vegetation Simulator](#)¹⁸

The forest vegetation simulator growth model used by the USDA Forest Service and other government agencies to predict forest stand dynamics. Forest managers use FVS to summarize current stand conditions, predict future stand conditions under various management alternatives, and update inventory statistics (Dixon 2002).

FS

[Acronym]: Forest Service [United States Department of Agriculture]

fuzzed

A technique applied to FIA annual plot coordinates to make it difficult to locate the plot on the ground while maintaining a good correlation between the plot data and map-based coordinates. All annual plot coordinates are fuzzed within 0.5 mile for most plots and up to 1.0 mile on a small subset of them.

¹⁸ <http://www.fs.fed.us/fmfc/fvs/>

FVSStand Alone

An advance forest planning post-processor used to produce standard stand and stock tables (Vandendriesche 2014).

geographic area of interest

A user-defined area, selected either spatially using the SIT or by the tabular selection of available resource inventory datasets (DATIM datasets) stored in the DATIM DataMart (ESRI 2014).

geographic information system (GIS)

A geographic information system (GIS) integrates hardware, software, and data for capturing, managing, analyzing, and displaying all forms of geographically referenced information (ESRI, 2014).

Geospatial Interface (GI)

The Geospatial Interface (GI) is an ArcMap extension that helps resource specialists' work efficiently with data. It provides tools that simplify loading data while giving access to custom Forest Service products for display, analysis, and output of data. You can think of the GI as a lens that gives users access to the full suite of corporate data.

GIS

[Acronym]: Geographic Information System

GIS Specialist

A user roles assigned in DATIM that grants the user permissions to create and save analytical report designs and output, plus view and work with standard ATIM reports, but does not have access to confidential information (actual plot coordinates and private ownership information). This user has the added ability to add and delete SIT attributes in ATIM and has full access to DTIM.

Graphical User Interface (GUI)

Computers A visual way of interacting with a computer.

grid

(1) A set of grid cells forming a regular, or nearly regular, tessellation of a surface. (2) Set of points arrayed in a pattern that forms a regular, or nearly regular, tessellation of a surface. The tessellation is regular if formed by repeating the pattern of a regular polygon, such as a square, equilateral triangle or regular hexagon. The tessellation is nearly regular if formed by repeating the pattern of an “almost” regular polygon such as a rectangle, nonsquare-parallelogram or nonequilateral triangle (FGDC 1998).

GRM

Growth, Removals, and Mortality

Grouping Level

The data collected is organized in a hierarchy. Data are collected in plots, on portions of plots (subunit), and on trees/seedlings. Another grouping choice is SIT attributes that have been added to the dataset. The Plot grouping level relates to variables collected on the entire plot. The Subunit grouping level related to variables collected on a portion of the plot, such as subplot, microplot, transect, or condition. The Tree/Sapling grouping level refers to variables collected on trees and saplings at least 1 inch in diameter. The Seedling grouping level relates to variables collected on live seedlings. The SIT attribute grouping level relates to variables added to the analysis using the Spatial Intersection Tool.

Grouping Variable

The Grouping variable allows users to select the classification variable to group the report's pages, rows, and/or columns by. Variables include: current stand, characteristics for Area estimates; current stand or tree/seedling characteristics

for Tree Dry Weight, Carbon, Tree Volume, Tree Number, Growth, Removals, and Mortality (GRM) estimates.

Guest User

A user role assigned in DATIM that grants the user permissions to open publicly accessible ATIM analyses, run standard analysis reports, and create and view custom analysis reports. In DTIM, this user can define a project, open a publicly accessible project, and view, print, and locally save project reports. This user has the most limited access of all the users.

GUI

[Acronym]: Graphical User Interface

indicator

A biotic or abiotic feature measured for a forest (Bechtold and Patterson 2005).

inventory

The systematic acquisition, analysis, and organization of resource information needed for planning and implementing land management (adapted from USDA NRCS 1997).

KCP

[Acronym]: Keyword Component File

keyword component file (KCP file)

Keyword component (KCP) files are "addfiles" containing sets of FVS keywords used to perform complicated interactions with the FVS models, and which perform actions not currently included in the FVS models.

layer (GIS)

A digital information storage unit, also known as a theme. Different kinds of information such as roads, boundaries, lakes, and vegetation, can be grouped and stored as separate digital layers or themes in a GIS (Anon. 2009).

map

(1) A spatial representation, usually graphic on a flat surface, of spatial phenomena (FGDC 1998). (2) A representation, usually on a plane surface, of a region of the Earth or heavens (Robinson et al. 1978).

metadata

Refers to "data about data"; describes the content, quality, condition, and other characteristics of a given set of data. Its purpose is to provide information about a dataset or some larger data holdings to data catalogues, clearinghouses, and users. Metadata is intended to provide a capability for organizing and maintaining an institution's investment in data to provide information for the application and interpretation of data received through a transfer from an external source (Jennings et al. 2004, as modified from FGDC 1997).

monitoring

(1) The systematic collection, analysis, and interpretation of resource data to evaluate progress toward meeting management objectives (adapted from SRM 1989). (2) The collection and analysis of resource data to measure changes in the amounts, spatial distribution or condition of resource types or parameters over time (Brohman and Bryant 2005).

Natural Resource Manager (NRM)

A system of database tools for managing Agency data across the Forest Service. [Natural Resource Manager¹⁹](#) includes: Forest Service Activity Tracking System (FACTS), Infrastructure (Infra), Natural Information System (NRIS), and Timber Information Manager (TIM) applications. NRM applications provide tools for most of the agency's natural resource business areas.

NIMS

[Acronym]: National Information Management System

NFS

[Acronym]: National Forest System

OQM

Objective/Question/Metric

owner

The owner class that best corresponds to the ownership (or the managing agency for public lands) of the land in the condition class (USDA FS 2014b).

¹⁹ <http://www.fs.fed.us/nrm/>

owner group

The FIA owner group identifying the ownership (or the managing agency for public lands) of the land in the condition class (USDA FS 2014b).

phase 1 (P1)

FIA activities related to remote-sensing, the primary purpose of which is to obtain strata weights for population estimates (Bechtold and Patterson 2005).

phase 2 (P2)

FIA activities conducted on the network of ground plots. The primary purpose is to obtain field data that enable classification and summarization of area, tree, and other attributes associated with forest land uses (Bechtold and Patterson 2005).

phase 3 (P3)

A subset of Phase 2 plots where additional attributes related to forest health are measured (Bechtold and Patterson 2005).

plot

A cluster of 4 points arranged such that point 1 is central, with points 2, 3, and 4 located 120 feet from point 1 at azimuths of 360, 120, and 240 degrees, respectively. Each point includes a microplot, a subplot, and an optional macroplot (Bechtold and Patterson 2005).

post-processor

A post-processor is a program that reads FVS output files and produces further reports such as stand and stock tables, elk hiding cover, and various other metrics (Dixon 2002).

PRC

Page/Row/Column

registered user

A user role assigned in DATIM that grants the user permissions to create and save analytical report designs and output, plus view and work with standard ATIM reports, but does not have access to confidential information (actual plot coordinates and private ownership information). This user has limited access to ATIM, and full access to DTIM.

regional administrator

A user role assigned in DATIM that grants the user access to all DATIM datasets and projects for their Forest Service Region, including confidential information. This "Super User" has access to actual plot coordinates and can edit any of the regional data in the DATIM DataMart. He/she has the ability to create analytical report templates to limit how the regional data are analyzed and viewed by other DATIM users. Additional permissions include the ability to compile and load inventory information to the Data Center, define and populate new attributes, edit and create metadata associated with those attributes, and create DATIM datasets.

R&D

[Acronym]: Research & Development

simple random sampling

A method of selecting n units out of the N such that every one of the samples has an equal chance of being chosen (Bechtold and Patterson 2005).

SIT

[Acronym]: Spatial Intersection Tool, a DATIM tool used to perform spatial intersections between plot-based data and user-selected geospatial layers, with the results of those intersections stored in DATIM for analysis in ATIM to refine analyses and reports. SIT is used to access geographic information systems with the spatial data located locally and remotely on intranets/internet. This tool includes enhanced spatial querying and reporting capabilities using Esri's ArcGIS software and other data visualizing and data mining techniques.

SIT-plot intersection (grouping level)

Relates to variables added to the analysis using the Spatial Intersection Tool.

spatial data

Data that record the geographic location and shape of geographic features and their spatial relationships to other features (USDA Forest Service 2004).

species

In biological classification, the category below genus and above the level of subspecies and variety; the basic unit of biological classification (adapted from Lincoln et al. 1998).

standard report (ATIM)

A report template that users can run against any compatible analysis. Some standard reports were preloaded in ATIM, while others are designed by administrative users and saved as standard report templates.

status (ATIM)

The ATIM reporting filter used to indicate the FIA tree status code assigned to the measured trees.

strata

Non-overlapping subdivisions of the population such that each primary sampling unit is assigned to one and only one subdivision (or stratum). The relative sizes of these strata are used to compute strata weights (Bechtold and Patterson 2005).

stratification

A statistical tool used to reduce the variance of the attributes of interest by partitioning the population into homogenous strata. It may also involve partitioning a highly variable but small portion of the population (Bechtold and Patterson 2005).

stratification scheme

A means of classification of the sample area into sub-populations (strata) often to produce homogeneous areas of a key attribute to improve the precision of estimates drawn for the area. A stratification scheme must: (1) Be uniquely defined within an Estimation Unit but may be defined differently across Estimation Units; (2) Define strata to be exhaustive and mutually exclusive within Estimation Units. This implies that strata are also exhaustive and mutually exclusive across the data set area; (3) Contain strata that have samples drawn by one and only one of the currently supported sampling methods: simple random sampling, stratified random sampling, double sampling for stratification or post-stratification. Currently supported stratification schemes include none (simple random sampling), wall-to-wall (stratified random sampling or post-stratification), and first-phase sample to estimate strata sizes (double sampling for stratification); (4) Contain strata with samples drawn with equal probability of selection within a stratum. This restriction is due to the current version of ATIM and may be loosened in future versions; and, (5) Contain a description of each stratum and a link to the spatial layer of the strata.

stratum

In general, one of a series of layers, levels or gradations in an ordered system. In the natural environment, the term is used in the sense of (1) a region of sea, atmosphere or geology that is distinguished by natural or arbitrary limits, or (2) a layer of vegetation, usually of the same or similar height (adapted from FGDC 1998).

template (DTIM)

A predetermined set of available resource inventory monitoring objectives and associated questions and metrics presented to the user for selection in DTIM for a specific use, such as a Forest Plan Revision.

Temporal Basis

This is an option attribute for advanced users. For more information, visit the [Description of Temporal Basis](#)²⁰ page.

timberland

Forest land that is producing or is capable of producing crops of industrial wood and not withdrawn from timber utilization by statute or administrative regulation. Areas qualifying as timberland are capable of producing at least 20 cubic feet per acre per year at culmination of mean annual increment in fully stocked, natural stands.

trees

Woody plants that generally have a single main stem and have more or less definite crowns. In instances where life form cannot be determined, woody plants at least 5 meters in height are considered trees (FGDC 1997).

USDA

[Acronym]: United States Department of Agriculture

variant (DCS)

When equations, such as those for tree growth, mortality, and volume, are developed for a specific geographic area and imbedded in the FVS framework, the resulting model is called a geographic variant of FVS (Dixon 2002).

²⁰ <https://apps.fs.usda.gov/Evalidator/DescriptionTemporal.html>

window

A user interface that pops up in front of a DATIM page.

250 acre rule

The 250 acre rule is a security check that is run to ensure that actual plot locations are not inadvertently disclosed through a summary report. The 250 acre rule takes into account the county layer, the layer of interest and the plot locations such that any polygon resulting from a GIS process that contains a plot location must be at least 250 acres in size. Plots that do not pass the 250 acre rule will be excluded from the report. If you have elected not to use the 250 acre rule, do not share the data or output outside of FIA or NFS without consulting a FIA spatial data services representative.



Figure 7-1. SUU-FIA Certified Accessible for Revised Section 508 Standards Seal.