



FVS Newsletter September 30, 2021

Issue 18

Forest Vegetation Simulator



Forest Management Service Center 2150A Centre Avenue Fort Collins, CO 80526-1891 970-295-5770 Email: <u>SM.FS.fvs-support@usda.gov</u> Web: <u>https://www.fs.fed.us/fvs/index.shtml</u>

Subscribe/Unsubscribe
Update

In This Issue

 Highlights

 Release Info

 New Installation Structure

 Base FVS Updates

 Redwood Additions

 Small Tree Diameter Dubbing

 Species Codes Changed

 FVS_Regen_Tally Variables Renamed

 FVS Interface Updates

 Restructuring into R Package Format

 Project Backup Automatic Naming

 Import Runs Menu Upgrade

 Menu Layout and Naming Changes

Standardized Static Visualization Images Upload Inventory Database Quick Link Background Runs Processes Selection

Highlights

Welcome to the eighteenth issue of the Forest Vegetation Simulator (FVS) Newsletter. In this newsletter we describe the many major updates since our last FVS version release in June 2021.

Our goal is to keep FVS users up-to-date on recent changes and new additions to the software. For more information on FVS, or to find past issues of our Newsletters or Bulletins, please visit our <u>website</u>.

Feel free to let us know how we are doing. You may <u>email</u> us with any advice, ideas, or other input that you think will help.

Release Info

Version: 3760 Revision: 20210930

New Installation Structure

In previous releases the FVS software installation location was always "C:\Users\Public\Documents\", with the FVS projects folder location being picked by the user before installing. Now, both the FVS software and the FVS projects folder are installed to one user-defined root location.

Base FVS Updates

In this section we will highlight the main updates to the base FVS code.

Redwood Additions

The CA, NC, and OC variants now include redwood as a species. New growth relationships have been developed for redwood and have been incorporated into the CA, NC, and OC variants. The new relationships have also replaced the preexisting relationships for redwood and giant sequoia in the CA, OC, PN, OP, WC, and WS variants.

Small Tree Diameter Dubbing

Previously, if no diameter was input for a tree record in the FVS_TreeInit table it was ignored by FVS, regardless of whether there was a recorded height. For trees with no recorded diameter, but with a recorded total height of less than or equal to 4.5', a diameter of 0.1" is now dubbed in for that tree record.

Genus and Species Updates

Displayed genera and species names were updated based on the USDA Forest Service NRM TAXA lists and the USDA Plants database. The only non-genus/species categories now included in FVS are other hardwood, other softwood, and other. The FVS species translator, which was last updated in 2007, has been brought up to date with these changes. Users will see updated common names, scientific names, FVS species codes, FIA species codes, and Plants symbols. For changes, refer to the variant overviews and species translator.

FVS_Regen_Tally Variables Renamed

Two variables in the FVS_Regen_Tally table were renamed to "TpaSmall" and "PctOfTotalSmall" from "TpaLt3In" and "PctOfTotalLt3In", respectively. In the AK variant the maximum DBH is now 1", with all other variants being 3".

FVS Interface Updates

In this section we will highlight the major updates/fixes to the FVS interface code.

Restructuring into R Package Format

The FVS interface is built using the R statistical software coding language. In previous versions, the interface layout and functionality were based upon a set of R source code files. These files have now been made into two formal R packages named rFVS and fvsOL, with rFVS being the <u>FVS Application Program Interface R functions</u>, and fvsOL being the interface code itself. Both

are included starting with this quarterly release. If interested in more detail on these R packages for your own use, the Open FVS <u>wiki</u> will be updated in the near future with this information.

Project Backup Automatic Naming

The automatic naming of project backups has been updated to conform with the international date format of Year-Month-Day, rather than the Year-Day-Month format that was previously used.

Import Runs Menu Upgrade

The "Import Runs" menu has been renamed to "Import runs and other items" and has been revamped to allow the user to also import KCPs, graphical settings, custom queries, input data, and spatial data into their project. These can be imported from a zip file, or from another existing project on the user's PC.

Menu Layout and Naming Changes

To increase the intuitiveness of the interface layout, several menu tabs were rearranged and renamed. Below is a table encapsulating the name changes and relocations:

Previous Name	Current Name	Previous Location	Current Location	
Runs	Simulate	Main tab panel	Same	
SVS3d	Visualize	Main tab panel	Same	
Maps	View on Maps	Main tab panel	Same	
Tools	Manage Projects	Main tab panel	Same	
Import Data	Import input data	Main tab panel	Manage Projects tab panel	
Import Runs	Import runs and other items	Main tab panel	Manage Projects tab panel	

Standardized Static Visualization Images

Three static images were added to the Visualize (previously SVS3d) menu as a compliment to the rotatable dynamic image present in all previous versions of the interface. These images are rendered from an overhead, profile, and perspective view, similar to the default 3-view screen layout in the Legacy Stand

FVS Newsletter

Visualization System post processor users may be familiar with.

Upload Inventory Database Quick Link

An "Upload inventory database" button was added to the "Stands" submenu to quickly redirect the user to the "Upload inventory data" sub menu to make it obvious upon startup where and how to get their data into FVS. There is also an associated message to inform the user whether the default training data is being used, or if their data is installed into the project.

Background Runs Processes Selection

When using the Run in Background option under the "Run" submenu, the user now has the option to divide that run into multiple processes to be performed simultaneously, reducing run time as a result. The maximum number of processes available is based upon the number of processor cores available on the user's PC.

Regional coordinators for information specific to your geographic area

Region	Name	Phone Number	Email Address
1 - Northern	Renate Bush	406-329-3107	renate.bush@usda.gov
2 - Rocky Mountain	Laurie Swisher	970-385-1305	laurie.swisher@usda.gov
3 - Southwestern	Ryan Heaslip	505-842-3240	ryan.heaslip@usda.gov
4 - Intermountain	Pat Murphy	435-636-3320	pat.m.murphy@usda.gov
5 - Pacific Southwest	Joe Sherlock	707-562-8686	joe.sherlock@usda.gov
6 - Pacific Northwest	Robyn Darbyshire	503-808-2668	robyn.darbyshire@usda.gov
8 - Southern	Jason Rodrigue	828-257-4248	jason.rodrigue@usda.gov
9 - Eastern	Carrie Sweeney	414-297-1898	carrie.sweeney@usda.gov
10 - Alaska	Damien Zona	907-228-6311	damien.zona@usda.gov