



What Fire Behavior Specialists Need To Know About WFDSS - 2015

This document is a quick reference for Fire Behavior Specialists to review recent enhancements, common problems, little known features, recommendations and things to consider that will help you use WFDSS more efficiently.

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Recent WFDSS Enhancements

The latest WFDSS release information, now available in both print and video, is located at the top of the WFDSS Website > What's New in WFDSS page. The section located on the right side of the WFDSS Home Page previously called *Latest Information* is now called *Hot Picks*; contains links to those items most frequently accessed by users. Release 5.1 (December 2014) and Release 5.2 (March 2015) are the latest releases affecting users. Below are a few highlights.

Table 1 : Recent WFDSS Enhancements

Feature	Description
Scott & Reinhardt Crown Fire Method added to FSPro	The Scott and Reinhardt crown fire method is now available for use in FSPro. Until now, Finney (1998) was the only crown fire method available. In general, the Scott and Reinhardt method delivers more predicted active crown fire behavior and potentially greater rates of spread.
Modeling Learning Resources section on WFDSS Website > Training	The WFDSS website has been improved with Modeling Learning Resources consolidated on the WFDSS Website > Training page. The Related References page also contains valuable reference information but core learning materials are now in one location on the Training page.
LANDFIRE 2012 has replaced LANDFIRE 2010 as the Default Data Source	The LANDFIRE 2012 1.3.0 landscape data source is now the default data source in WFDSS. This latest product from LANDFIRE incorporates disturbances, management activities and succession through 2012. For additional information about the data source, visit the LANDFIRE.gov website.
KBDI-Adjusted Dynamic layer added to the Southeast Geographic	A KBDI adjusted dynamic layer has been added for the Southeast Geographic Area. Over time, additional Geographic Areas may receive a similar layer that applies fuel conversion rule sets based on a given



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Feature	Description
Area	weather variable. See KDBI Adjusted LANDFIRE Layer for further information.
Improvements to Analysis Detail on FSPRO Results subtab	<p>When viewing FSPRO analysis results, the left pane contains an improved section called <i>Analysis Detail</i>. This section now contains links to Details, Wind Distribution, Values at Risk and Daily Acres:</p> <ul style="list-style-type: none"> ➤ Details contains general information about run inputs and outputs as well as an ERC Class Burn Days tabular Summary that helps analysts determine what percentage of burn days fell into which ERC bin. ➤ Winds Distribution provides two winds roses; the one on the left shows actual RAWS data and the one on the right shows what was used by FSPRO. ➤ Values at Risk generates a list of known values that are intersected by modeled outputs. ➤ Daily Acres lists the modeled days and their corresponding average, minimum, and maximum acres burned.
ERC Class Burn Summary Available in Two New Locations and in Two Formats	<p>Previously, ERC Class Burn Summary information was only located in the event coverage report, which is still available for download from the Results map. The Summary is very useful to analysts because it communicates the number of burn/no burn non-forecast days the model used for a particular run, and how burn days were distributed among the ERC Classes. To make this information more accessible, it was made available from two additional locations and in two formats:</p> <ul style="list-style-type: none"> • A histogram and tabular format is available from the FSPRO outputs histogram link, which is located beside the name of the FSPRO run in the LayerSwitcher. • A tabular format is available from the Results pane > Analysis Details > Details.
Landscape Critique Generates Automatically & with Improved Design	<p>A Landscape Critique provides numerical, image, and graphical information on the composition of the landscape. This information allows you to assess the composition of the landscape file in terms of percent of various fuel models, canopy characteristics, slope, aspect, and elevation. This is a powerful tool to assess if landscape edits you made have had the desired effect on the landscape file before running a fire behavior simulation. See Downloading a Landscape Critique.</p> <ul style="list-style-type: none"> • Previously, generating and downloading a Landscape Critique required two steps: analysts had to click 'Generate LCP Critique', wait a few moments and then click 'Download LCP Critique.' Now, the Landscape Critique file generates automatically and is available for download after a short



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	<p>processing time. (Remember that that an LCP file must be created before its critique can be generated.)</p> <ul style="list-style-type: none"> In addition, the organization of the Critique has been modified; detailed information about individual fuel models is now sorted by percent coverage. In other words, the fuel models with the highest frequency are listed first in the report and in descending order by percent coverage.
15-Minute Timeout	A popup window now displays a 15 minute timeout warning when a user is logged in and inactive.
Simplified Default Decision Editor	A simplified Default Decision Editor has been added that streamlines decision documentation and is more intuitive to use. The previous decision editor (that's been in use since WFDSS' inception) is now available as the Advanced Decision Editor. The majority of decisions can be successfully documented using the new Default Decision Editor, but the Advanced Decision Editor contains additional formatting tools that may be useful when documenting complex decisions with abundant text, formatting and images. The new Default Decision Editor opens automatically when you choose to edit a decision on the Decision tab.
Assessment portion of a Decision split into four distinct sections: Weather, Modeling, Risk, and Benefits.	<p>The Assessment portion of the decision has been split into four distinct sections; Weather, Modeling, Risk and Benefit. Analysts can insert long term assessment information into the appropriate section of the document with ease and less guesswork of what goes where. The Default Decision Editor streamlines the insertion of additional content:</p> <ul style="list-style-type: none"> ➤ Weather section displays the current Predictive Services Significant Fire Potential, which can be selected for inclusion in a decision. ➤ Modeling section allows an editor to select which 'accepted as complete' modeled runs to include in the decision. ➤ Risk section allows access the Relative Risk and Org Need Assessments and allows editor to select optional content to include in the decision (relative risk and OA charts). ➤ Benefits section includes a slider bar that allows an editor to select whether the fire is achieving benefits associated with Strategic Objectives for the unit. This portion is optional, but can be selected for inclusion in the decision.
Skip to Content feature added for use with Screen-Reading Technology (508)	The Skip to Content feature was created to meet federal requirements for 508 compliance and accessibility and increase overall usability for the application. This feature is for WFDSS users



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Feature	Description
Compliance)	utilizing screen readers, which are a form of assistive technology that provides audible explanation of fields/items visible on a screen. Users of these technologies use the tab function to move from section to section on a screen. The Skip to Content option allows the screen reader to skip right to the primary fields of interest on that page. The Skip to Content feature only works when using screen reader technology; without it, the option appears to do nothing.

New Data Layers

Table 2: New WFDSS Data Layers

Data Layer	Description
Fuel Treatment Data	As of July 2014 interagency fuel treatment data are included in WFDSS. These data are sourced from the individual federal agencies and combined into one layer. The layers can be found under the Disturbance History heading in the layer tree.
LANDFIRE 2012	The LANDFIRE 2012 1.3.0 landscape data source is now the default data source in WFDSS and its' data has national coverage. This latest product from LANDFIRE incorporates disturbances, management activities and succession through 2012. For additional information about the data source, visit the LANDFIRE.gov website.
KBDI-Adjusted Dynamic layer added to the Southeast Geographic Area	A KBDI adjusted dynamic layer has been added for the Southeast Geographic Area. Over time, additional Geographic Areas may receive a similar layer that applies fuel conversion rule sets based on a given weather variable. See KBDI Adjusted LANDFIRE Layer for further information.
Updated and simplified critical habitat layer	The updated and simplified Critical Habitat layer now features categories Endangered, Threatened, and groups all other categories into Other.



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New Training Aids

Table 3: New Training Aids

	Description
YouTube WFDSS Support Videos Channel	This channel provides training videos that walk you step-by-step through many common tasks. If you have a YouTube account simply search for WFDSS Support Videos. To view new videos as they become available, subscribe to this channel. http://www.youtube.com/user/WFDSSSupportVideos?feature=g-high-u
Quick video preview of What's New in WFDSS	A link to a short video describing recent WFDSS enhancement will be available from the WFDSS login page following new releases (may be a short delay after the actual release date). Users can quickly preview recent WFDSS enhancements without leaving the login page and no longer have to search the WFDSS home page for a link. This option will be easy to incorporate into WFDSS refreshers for units nationwide. Previous release videos are available from the WFDSS home page in the What's New in WFDSS and Training > Videos menu options.
What's New in WFDSS menu option on the WFDSS Website	A new menu option has been added to the WFDSS Website called <i>What's New in WFDSS</i> . Here, users can quickly review notes from previous releases and short preview videos, if available. Links to the most popular items will be available in the Hot Picks column as well.
Example Decisions	Two example decision documents have been created to give users a point of reference when crafting a decision document (examples include the Gold Pan long duration incident and the Salt Cove Type 3 incident). These Example Decisions are located on the Reference & Guidance section of the WFM RD&A Website and are linked to the <i>WFDSS Website > Training > Decision Learning Resources</i> location as well. Use these decisions as examples of where long term assessment-related information can be utilized in a decision document.
Modeling Learning Resources section on WFDSS Website > Training	The WFDSS website has been improved with Modeling Learning Resources consolidated on the WFDSS Website > Training page. The Related References page also contains valuable reference information but core learning materials are now in one location on the Training page.



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Little Known Features

Table 4: Little Known WFDSS Features

Feature	Description
Help	WFDSS has an extensive Help system that can be accessed any time by selecting the Help icon  in the upper right corner of any WFDSS screen. You can find topics alphabetically in the WFDSS Help index, or look for information using the search feature. The help information is being updated constantly to keep up with program enhancements and in response to user feedback, so check often.
Basic Fire Behavior Hauling Chart	Basic Fire Behavior map results allow users to display modeled flame lengths with the same breakpoints as the Hauling Chart (Fire Characteristics Chart). This feature allows for a quick assessment of areas of the landscape that may pose safety risks for firefighters and allow for planning of appropriate control tactics. Look for better graphics in near future WFDSS enhancements. See Analyst-Assisted BFB - Why use it.
Results Landscape Features	Attributes for the landscape file used by an analysis are now available for viewing on the analyses results map page. Attributes such as slope, aspect and fuel model can be toggled on from the analyses results map LayerSwitcher. Clicking the down arrow next to Landscape in the LayerSwitcher reveals a layer transparency slider bar. With this tool, you can adjust the transparency of your selected landscape feature to better view your results layer underneath. This allows users to better assess areas of the analyses results that show increased fire spread or little or no spread to determine what landscape feature or features may have influenced the fire behavior.
Results Downloads	The KMZ, ASCII, and Output files are an excellent source to use for displaying analysis results outside of WFDSS, but there are many other useful files located under Downloads on the Results Tab. FSPro downloads include Fire Size Histogram, Event Coverage, and Daily Acres. These files can be useful to you as an analyst. For example the Event Coverage Report will give you the burnable and non-burnable days for your analysis (also available in two other locations listed in the first section of this document); to help you understand how many days in the simulation the fire didn't spread. Daily Acres Report can give you information on daily spread also indicating how many burnable and non-burnable days your analysis had and when they occurred. See FSPro Results Downloads and Near Term Results Downloads .
Analysis Report available from the Analysis Tab	The Analysis Report can be obtained from the Analyses tab View Report button or by selecting Report on the Menu switcher tree. The Report provides the same information as the Analysis Details but this printable report also provides more details and some additional graphs and images including a wind rose. The Analysis Report includes a map image of the results. This Report can be an excellent tool to use for briefing a line office or fire manager on the analysis results particularly if you are



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Feature	Description
	working remotely and must email this information. See Viewing the Analysis Report .
Estimated Ground Evac Time	A data layer available in WFDSS (Fire Environment and Safety map layers) displays estimated ground evacuation time and models the shortest ground transport time in hours from any point within the continental United State to a hospital. The layer has been designed for strategic decision making only. Its intent is to encourage thoughtful decisions about the risks being transferred to firefighters and how to mitigate those risks. Used in conjunction with modeling results, areas of higher risk can be easily identified and can help inform overall strategy into the short, near or distant future, depending on the model used. See Help> Estimated Ground Evac Time Overview .
Incident Groups	Users can now create a collection of incidents and view analyses for two or more incidents on the same map page. This can be advantageous when you are monitoring several incidents that are in close proximity and/or you wish to evaluate the impacts of adjacent fires on one another. These groups can remain private or made public and shared with other users. See Creating a Group .

Recommendations

Table 5: Recommendations When Using WFDSS

Feature	Description
Sharing Analyses Results	You may share your analyses without accepting your analysis as complete. The Landscape-oriented Report allows you to capture a map image and title it as you would for a decision, and if you add a Report Name below the image capture description you can also generate a landscape mode.pdf report you can edit and print or email for review by other incident personnel. The Landscape Report displays only single map captures. See To capture map images as landscape-oriented reports .
Keeping Analyses up to date on active large fires	Increasingly, data from WFDSS is being used in ancillary intelligence sources. For active incidents, having up to date and accepted as complete analyses helps to give a clearer picture of an incident's potential.
Guidelines when Naming Analyses	When naming a fire behavior analysis run, use spaces to delineate information rather than underscores or periods. This allows text 'wrapping' in the database and is easier to manage under the hood.



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Preseason Preparation Checklist (My Home tab)

Table 6: WFDSS Preseason Preparation Checklist

✓	Feature	Description
<input type="checkbox"/>	Passwords	<p>Users are allowed one account per person and it provides access to both WFDSS Production and Training sites.</p> <p>If you forget your password, you can request an automated password reset. An access key link is emailed to your primary email address. Click the link to reset your password. See Do-It Yourself Password Reset.</p> <p>Your password must be changed every 60 days. If you have not logged into WFDSS recently you may still be able to log in, but you will be required to change your password. If the system does not allow you to log in and more than 90 days have passed since your last log in, you are likely locked out. Contact the Help Desk (1-866-224-7677) and request a password reset. Do not request a new account; this will cause confusion when preparing decision documents and performing other WFDSS functions.</p>
<input type="checkbox"/>	Contact Information	<p>Check your contact information and ensure that it is up to date. This information is used by the WFDSS system and WFDSS users to contact you for various reasons, for example if you are an incident owner you will receive confirmation when any fire behavior analyses are completed on your incident to the email address listed in your Contact Information. If you have changed jobs, geographic areas, or even agencies you can simply update your Contact Information. Do not request a new account! Your WFDSS account is designed to stay with you throughout your career. If you are on a fire assignment, you may want to change your contact information for the duration of that assignment so that people working with you in the WFDSS environment can contact you as needed. See Updating your Contact Information.</p>
<input type="checkbox"/>	User Roles	<p>Ensure that your User Roles are appropriate for your current position and job duties. To view your current User Roles select <i>My Home > User Roles</i>. See Requesting Additional System Privileges or WFDSS User Roles to learn more about user roles and privileges. User roles granted in Production are automatically carried over to Training but conversely, user roles granted in Training are exclusive to the Training site only.</p>
<input type="checkbox"/>	System	<p>You may select preferred default settings to customize specific</p>



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✓	Feature	Description
	Preferences	items, for example the default base map layer. New map layers are added periodically to the list of available Map Layers from System Preferences. The Map Layers listed in the right hand box will be available for display on WFDSS maps. All new available layers are now located in the right hand box, therefore available for viewing from WDFSS maps. Users must move those layers that are not needed back to the left hand box if they don't wish to display them on their WFDSS maps. See Changing your System Preference .
☐	Address Book	Check your address book to ensure it is up to date. Preseason is an excellent time to customize your My Address Book. You can set up groups now for use on incidents later. See Address Book , or see the other WFDSS Help topics related to the address book such as, Creating a Group and Editing a Group .