FireFamilyPlus 4.2 Build 24.19

Release Notice

Contents

1. Introduction

FireFamilyPlus (FFP) is an agency independent Windows desktop application for summarizing and analyzing historical daily fire weather observations and computing fire danger indices based on the National Fire Danger Rating System (NFDRS) or the Canadian Fire Danger Rating System (CFDRS). Fire occurrence data can also be analyzed and cross-referenced with weather data to help determine critical levels of fire danger for staffing and other fire management activities

FireFamilyPlus supports the spectrum of fire weather/fire danger/fire climate/fire occurrence analysis tools required by fire managers to successfully use the NFDRS which is mandated for use in fire preparedness by all Federal and most State agencies. The NFDRS is operationally run with F&AM's Weather Information Management System (WIMS).

It is the computational and analysis cornerstone for Advanced Fire Danger Rating (at NAFRI) and S-491 (Intermediate Fire Danger Rating) and provides fire weather/danger climate summaries for techniques taught at S-495. (Geospatial Fire Analysis Interpretation and Application). It generates the Fire Danger Rating Pocket Cards required by the 30-Mile Abatement Plan and supports the Predictive Services functions at all the Geographic

Coordination Centers. Updates have been supported by the U.S. Forest Service Fire and Aviation Management and the Rocky Mountain Research Station.

Major Items of Note in FireFamilyPlus 4.2

- Corrected defects that caused the application to freeze on some 64-bit Windows 7/8/10 Operating Systems with 64-bit MS Access drivers.

- Added National Association of State Foresters (NASF) as a standard fire agency using State and County FIPS Codes as Region and Unit identifiers. Source data: FAMWEB Data Warehouse. For more details, see the online tutorial under the Help menu.

- Corrected hourly values of fuel moistures (and subsequent NFDRS indices) computed using Fosberg methods. Only 1-hour and 10-hour moistures are now computed from hourly observations; 100-hour, 1000-hour, live fuel moisture, and KBDI are computed only using the 1300 LST observation.

- New FlamMap/FARSITE Weather Stream (*.wxs) exports, with gust or average winds have been added to Hourly Weather Export options.

Minor Corrections and Enhancements

- The template database, ffplus4.ffp has been updated to reflect recent WIMS station catalog data for active stations. Historical stations were removed, and USFS and FWS agency structures were updated to reflect various consolidations and additions.
- Removed **WRCC RAWS** as a weather import option. Functionality to ingest hourly wind gust data is now in standard FW13 format from the Western Region Climate Center (WRCC).
- Enhanced Wind Rose graphics to use either 10-minute average or hourly gust values, or both.
- Removed the FARSITE Version 3 option in Hourly Data Analysis FARSITE Exports.
- Verbiage on PocketCard thresholds when percentile is < = 50 has been corrected.
- Stoplight on PocketCard has been removed.
- Default values for local parameters Wind, Relative Humidity, and Temperature have been removed. The user is required to make thoughtful entries.
- Various defects in Interactive Batch (IAB) were corrected for more consistency between Batch and Interactive working sets.
- Export Daily List to DL_Output table in database now works in batch mode.
- Export Hourly Listing to HL_Output table in database now works as expected.
- Various minor improvements have been made to FW9/FW13 and Generic Weather Import functions.
- Various minor improvements have been made to Generic Fire Import functions, including adding new unit/subunits as needed.
- Some rudimentary editing of USFS and DOI fire cause codes is available under **Options**

> **Statistical Cause Codes.**

- When *Human* is selected in Fire Analysis, you can further restrict fires by statistical cause by clicking on the "**More**" button.
- Live Fuel Index values are correctly computed for a SIG.
- When *Daily* is selected as the category in **Event Locator**, the actual value is displayed instead of TRUE.
- When *Hourly* is selected as the category in **Hourly Event Locator**, the actual value is displayed instead of TRUE.

2. System Requirements

Operating System	Windows through Windows 10
Memory	64Mb.
Storage	100 Mb. Will increase with large databases.
Display	Minimum 1024 x 768 pixels, 264K (16-bit) colors.
Help	The online help is a Compiled HTML Help file and requires Internet Explorer. The file, ffp4.chm will be updated from time to time.
License	There are no licensing requirements.
Data Requirements	FireFamilyPlus comes with a sample database and will automatically upgrade older databases to the Version 4.2 database structure. The Acquiring Data topic in the program's online Help describes sources of data FFP will import for analysis. The Importing Data topic describes methods for importing data files.

3. Download

You can download the latest FireFamilyPlus 4.2 installation program (*FireFamilyPlus42.msi, 22.6 MB* from the FireFamilyPlus Downloads page. The MSI file may be contained in a Zip file (22.0 MB). If this is the case you will need to unzip or extract the MSI file. Other FireFamilyPlus documents, and supporting materials are also available at FireLab.org.

4. Installation

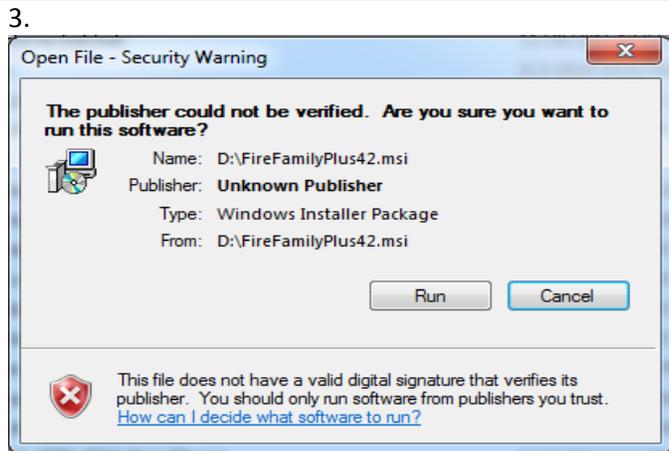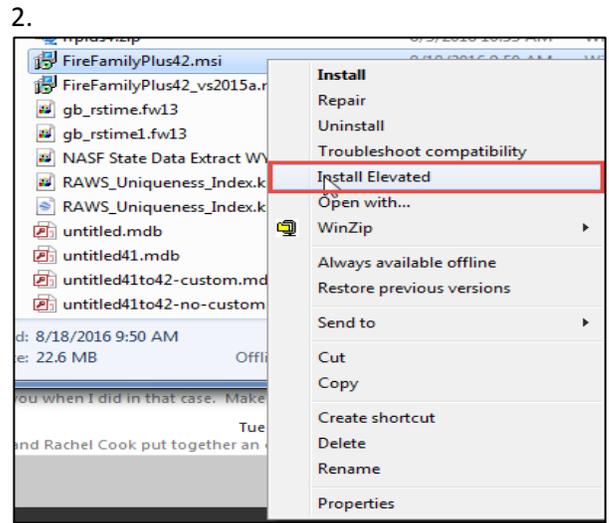If you have FireFamilyPlus version 4.1 already installed, you do not have to uninstall it from your computer, although you may.

FireFamilyPlus 4.2 installs to **c:\WorkSpace\FireFamilyPlus42** to avoid conflict with security settings in Program Files. Depending on your computer security settings, you may need administrative rights. USDA Forest Service computers may need to use Install Elevated
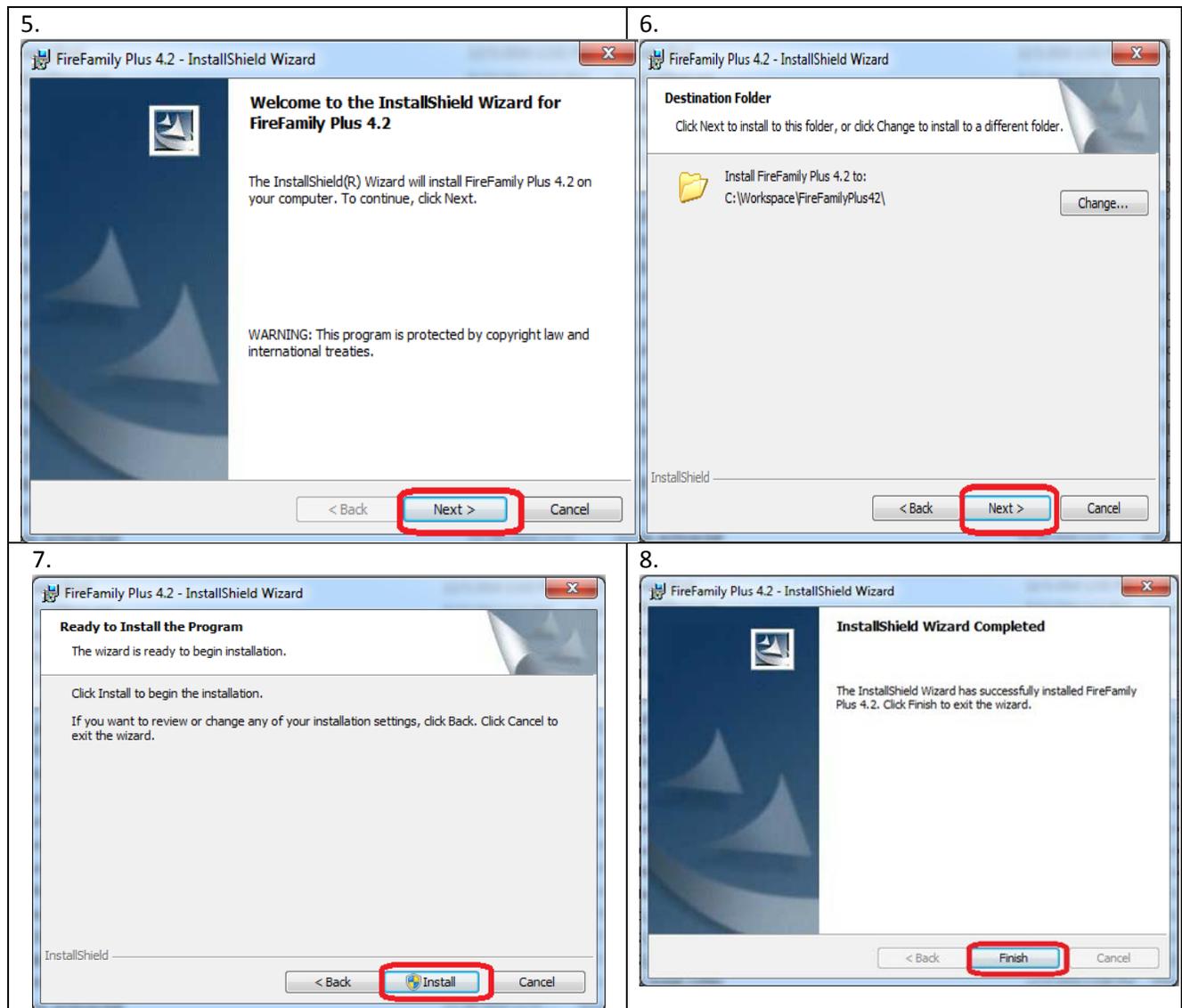
methods.

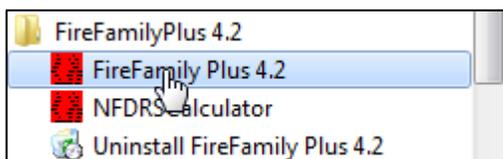| 1. Once you have downloaded the installation program, run it by: • clicking **Start** and **Run**, browse to locate *FireFamilyPlus42.msi*, and select **OK**, or • using *My Computer* or *Windows Explorer* ® to locate the file and double-click on the name or icon. USDA Forest Service computers may need to use Install Elevated methods. Right click on the installation file and select "Install Elevated" as shown in step 2.	2. ![Right-click context menu on FireFamilyPlus42.msi showing Install, Repair, Uninstall, Troubleshoot compatibility, Install Elevated (highlighted), Open with..., WinZip, Always available offline, Restore previous versions, Send to, Cut, Copy, Create shortcut, Delete, Rename, Properties]
3. ![Open File - Security Warning dialog. The publisher could not be verified. Are you sure you want to run this software? Name: D:\FireFamilyPlus42.msi, Publisher: Unknown Publisher, Type: Windows Installer Package, From: D:\FireFamilyPlus42.msi, with Run and Cancel buttons. This file does not have a valid digital signature that verifies its publisher. You should only run software from publishers you trust. How can I decide what software to run?]	4. If you Install Elevated, a Power Broker dialog will open and request justification. Enter "FireFamilyPlus" in the dialog box and click **OK**.

5. **FireFamily Plus 4.2 - InstallShield Wizard** **Welcome to the InstallShield Wizard for FireFamily Plus 4.2** The InstallShield(R) Wizard will install FireFamily Plus 4.2 on your computer. To continue, click Next. WARNING: This program is protected by copyright law and international treaties. < Back **Next >** Cancel	**6.** **FireFamily Plus 4.2 - InstallShield Wizard** **Destination Folder** Click Next to install to this folder, or click Change to install to a different folder. Install FireFamily Plus 4.2 to: C:\Workspace\FireFamilyPlus42\ Change... InstallShield < Back **Next >** Cancel
7. **FireFamily Plus 4.2 - InstallShield Wizard** **Ready to Install the Program** The wizard is ready to begin installation. Click Install to begin the installation. If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard. InstallShield < Back **Install** Cancel	**8.** **FireFamily Plus 4.2 - InstallShield Wizard** **InstallShield Wizard Completed** The InstallShield Wizard has successfully installed FireFamily Plus 4.2. Click Finish to exit the wizard. < Back **Finish** Cancel

5. Starting FireFamilyPlus 4.2

The FireFamilyPlus4.1 installation program should create a desktop icon. You can start the program via **Start->Programs-> FireFamilyPlus 4.2->FireFamilyPlus 4.2**. You can use standard methods to create a shortcut to the application file, "*fireplus.exe*" if one is not placed on your desktop during the installation.

> FireFamilyPlus 4.2
>   FireFamily Plus 4.2
>   NFDRS calculator
>   Uninstall FireFamily Plus 4.2

If you have a previous version of FireFamilyPlus installed on your computer, the last database

used will likely be opened and upgraded when you start Version 4.2.

Version 4.2 includes a sample database, C:\WorkSpace\FireFamilyPlus42\ffplus4. The database contains:
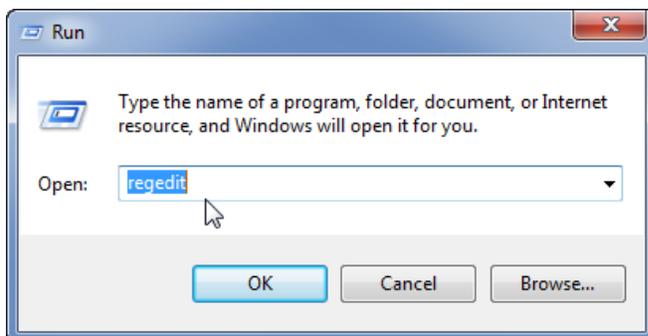
> a. Daily weather observations from Moose Creek, ID (101028) from 1996 to 2008
> b. Hourly observations, with wind gust and solar radiation from Moose Creek for 2008 (May through July).
> c. Fire occurrence records from USFS, Region 1, Nez Perce NF (17) for 1996 to 2007, associated with Moose Creek.
> d. Daily weather observations from Libby, MT (240107) from 1996 to 2007.
> e. Fire occurrence records from USFS, Region 1, Kootenai NF (14) for 1996 to 2007, associated with Libby.

The template database from which FireFamilyPlus creates new databases has minor updates that include weather stations recently added to WIM and updates in some Forest Service fire occurrence associations that reflect recent Forest consolidations, particularly in Region 1 (Northern Rockies).

5.1 Possible FireFamilyPlus 4.2 Compatibility Issue

There should be no database compatibly issues between previous versions but if you get an error after upgrade process, try closing and reopening the database.

FireFamilyPlus 4.1 and 4.2 share the same "recent file" registry and on rare occasions, if there is a problem upgrading to the 4.1 database, you will get "Stuck" opening the same file every time you start FireFamilyPlus (4.1 or 4.2). To get past this you must delete the files list in the Registry. This done by Start->Run->Regedit -> OK as shown below:
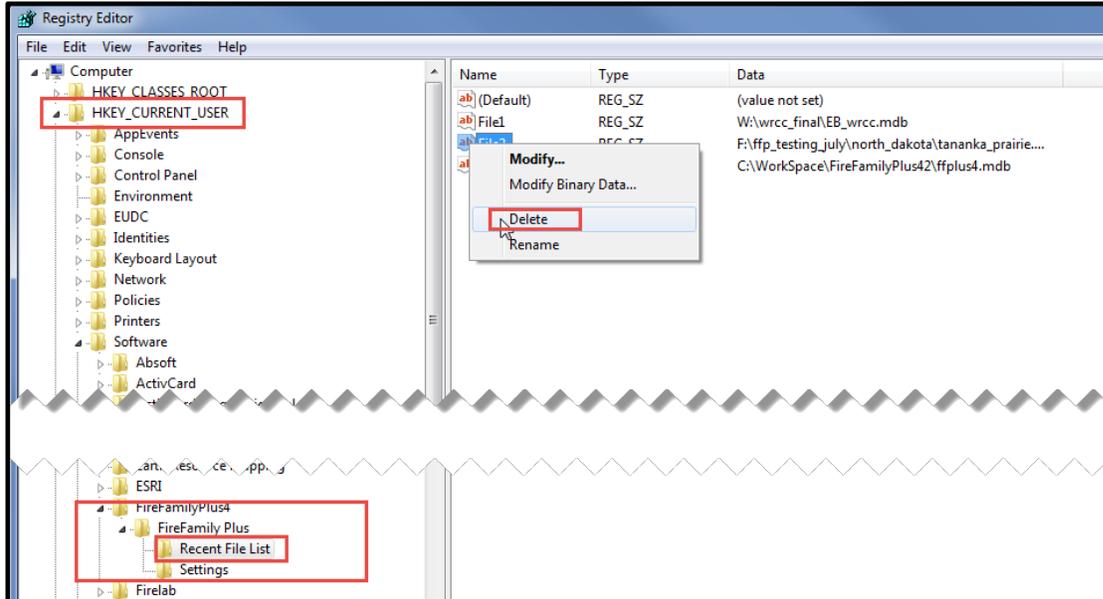

Once the Registry Editor has opened, navigate to:

HKEY_CURRENT_USER >Software >FireFamilyPlus4 >FireFamilyPlus >Recent File List

then right click on File1 in the Name column and select delete. There may be up to four recent files here. You should probably delete them all. Close the Registry Editor and restart FireFamilyPlus and do File->Open to select a different database, or File->New to create a new

database.
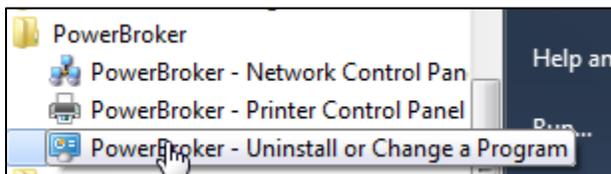

6. Uninstalling FireFamilyPlus

Note: Uninstalling FireFamilyPlus will remove all distribution files from the installation directory, _**including the sample database ffplus4.mdb.**_ If you need ffplus4.mdb you should make a copy of it prior to uninstalling FireFamilyPlus. Uninstalling **will not** remove any database files you may have created in this directory.

You may remove FireFamilyPlus using the standard Window Add/Remove Programs:

- Access the **_Control Panel_**,
- click the **_Add/Remove Programs_** icon,
- locate the FireFamilyPlus 4.x entry in the program list and click Remove (Windows 2000 and later).

USDA Forest Service users who used Install Elevated methods may need to use PowerBroker to uninstall FireFamilyPlus. This is accomplished by

 Start->All Programs->PowerBroker->PowerBroker – Uninstall or Change a Program

7. **Support**

Technical Support

The first level of technical support is provided through your local support channels. Please review our *FAQs* and *Known Bugs* pages prior to contacting the Help Desk.

The second level of technical support is provided by the USDA Forest Service Fire and Aviation Interagency Incident Applications (IIA) HelpDesk.

Phone: (866) 224-7677 or (616) 323-1667,
Fax: (616) 323-1665
E-mail: IIA-Helpdesk@fs.fed.us
Website: https://iia-hd.peckham-enclave.us/ (link is external)

The IIA HelpDesk is available for help with software issues only and cannot answer fire behavior questions.

Training Material

There is currently no single FireFamilyPlus course but several Tech Tips and self-study modules are available at www.firemodels.org and more are being developed.

User's Guide

The FireFamilyPlus User's Guide covers all aspects of the program operation and is available in Adobe ® PDF format. The document for Version 4 is currently under development and draft versions are available.