FFI & FFI-Lite Upgrade Installation Guide

For upgrading an existing installation

New FFI users should follow the installation instructions in the FFI User's Guide posted on the FFI Software and Manuals page here:

www.frames.gov/ffi

NOTE: There are separate sections for Forest Service and non-Forest Service users

Updated for FFI v1.05.08.08
December 18, 2018
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PREFACE

Note there are separate instructions for Forest Service and non-Forest Service users. Forest Service users are required to use SQL Server Express 2012. If it is not already installed on the computer you use to store your FFI databases carefully follow the SQL Server installation instructions.

If you have questions post a message to the FFI Google Group or contact Duncan Lutes: dlutes@fs.fed.us or 406-329-4761.

Description of FFI–Lite

FFI-Lite was designed as an easy-to-install alternative to FFI. It will be most useful for:

- Field data collection
- Smaller monitoring programs that do not need to access FFI databases from multiple workstations, do not use the FFI GIS toolbar and do not use PDA data collection devices

Comparison of FFI and FFI-Lite

The user experience of the FFI and FFI-Lite applications was designed to be as similar as possible. For example, the Project Management, Data Entry and Edit, Query, Reports and Analysis, and Species Management data screens look and function the same in both FFI and FFI-Lite.

The differences between the two applications are:

- Computers with FFI-Lite cannot be part of a FFI network
- FFI-Lite does not support the FFI GIS Toolbar
- FFI-Lite does not support PDA data collection

If you need any of these capabilities then you must use FFI and SQL Server Express. Additionally, if you want to create custom protocols they will need to be created in Protocol Manager, which is only available with the full version of FFI. A custom protocol can be imported into FFI-Lite after being created in Protocol Manager.

Major changes in FFI 1.05.08

- Removed support for the GIS toolbar
- Removed PDA support
- Allow monitoring statuses to be automatically assigned when macro plots are assigned to a new project unit
- Right-click sample event to assign monitoring status
- Added Canopy Densiometer protocol and reports
- Updated files exported for FOFEEM and FuelCalc
- Behind-the-scenes code changes to improve efficiency of import/export
• The SQL Browser window is not functional on some Windows 10 machines (32- or 64-bit OS). To connect to a server you must type the server instance name in the box named SQL Server Instances. The instance name will be in the form `computername\SQLEXPRESS`.

E.g., if your computer name is LTHP8511K55 and you used the default instance name when installing FFI then the instance name to use is: `LTHP8511K55\SQLEXPRESS`.

**NOTE:** The SQL Instance name was assigned when you installed SQL Express. Most people use the default, which is `SQLEXPRESS`. Occasionally, it is followed by a “1” or “2”. E.g., `SQLEXPRESS1`.

To find your computer name select **Start > Control Panel > System**. Click on the Computer Name tab and look for the Full Computer Name. The computer name may be followed by some domain information - such as `LTHP8511K55.ds.fs.fed` - but the computer name you will use is the first part: `LTHP8511K55`
FFI UPGRADE INSTRUCTIONS FOR NON-FOREST SERVICE USERS

FFI 1.05.08 Installation

For users of FFI v1.04.00 - 1.05.04.00

- If you are new FFI user or need more specific installation instructions see the Installation section of the FFI User Guide which is available on the FFI Software and Manuals page at: www.frames.gov/ffi.

- The instructions in this document assume you are using FFI only on a desktop. If using a database master (server) configuration FFI will need to be updated on the server and every computer accessing the server.

- You must have Windows administrator privileges to install FFI on your computer. A standard Windows user can use FFI after a Windows administrator has installed it.

- If you have problems with FFI installation post a message on the Google Group or contact Duncan Lutes, dlutes@fs.fed.us, 406 329-4761

1) If needed, get Administrator Privileges on the computer you are installing FFI on.

2) Using the FFI version you currently have installed, open FFI Database Administration and make backup files of your database(s). Save the .bak files in a safe place such as an external drive or network location.

NOTE: If you are unable to save backups to the default SQL Backup folder because of folder permission issues try saving them in the C:\\Tmp folder or on a flash drive. If those don’t work then log into FFI and, on the Administrative Unit selection screen,
export all Administrative Units by checking all the boxes on the left and clicking Export Admin. Unit(s) on the right.

3) Close FFI Database Administration when you are finished backing up your databases.

4) Uninstall FFI. Click Start > Control Panel > Add or Remove Programs, select FFI 1.0x.xx and Remove. (NOTE: This step is not required - you can have multiple versions of FFI installed on the same computer – but removing old versions will eliminate confusion about what version to use.)

5) Close Control Panel after FFI has been removed.

6) Open Windows Explorer or My Computer, create a temporary directory on your C: drive where you will store the installation files (e.g., C:\FFITemp).

7) Open a browser, go to the FFI-FRAMES website and then go to the Manuals and Software page, Software Instructions and Training Data tab.

8) Right-click FFI_1050808_Installer.zip, select Save link as... and save the file in the temporary directory you created above.

9) Close your browser.

10) In Windows Explorer or My Computer navigate to the temporary directory where you saved the FFI zip file. Right-click the filename, select Extract All and save the FFI folder in the same folder as the zip file.

11) In Windows Explorer or My Computer, open the folder you just unzipped and double-click the FFI installation file: Setup.exe.

12) The FFI Setup Wizard page will open. Click Next.
13) Accept the default installation folder and click Next.

14) Click Next on the Confirm Installation screen.

15) Click Close when the installation is complete.
16) Three FFI icons will be added to your desktop:

- Protocol Manager 1.05.08.08
- FFI Database Administration 1.05.08.08
- FFI 1.05.08.08

17) Close Windows Explorer or My Computer.

18) To patch your database to the new data schema log in to FFI Database Administration 1.05.08.08, highlight the database you would like to patch and select Database>Patch Database.

19) Click OK to patch the database.
19) The SchemaVersion and SchemaVersionFromDatabase will be updated to the new version.

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<td>DatabaseName:</td>
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<td>DatabaseOwner:</td>
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<td>DatabaseType:</td>
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<td><strong>Misc</strong></td>
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<tr>
<td>ConnectionString:</td>
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20) You are ready to log in and use FFI 1.05.04.00

**FFI-Lite 1.05.08 Installation**

You must have Windows administrator privileges to install FFI-Lite on your computer. A standard Windows user can use FFI after a Windows administrator has installed it.

1) If needed, get Administrator Privileges on the computer you are installing FFI-Lite on.

2) Make a copy of your FFI-Lite databases(s) and save on an external drive. FFI-Lite databases have an .SDF extension. Right-click the database file, select **Copy**, Open Windows Explorer or My Computer and navigate to the folder where you save backups, right-click in the folder and select **Paste**.

3) Uninstall the previous version of FFI. Click **Start > Control Panel > Add or Remove Programs**, select FFI 1.0x.xx and **Remove**. *(NOTE: This step is not required - you can have multiple versions of FFI installed on the same computer – but removing old versions will eliminate confusion about what version to use.)*

4) Close Control Panel after FFI has been removed.

5) In Windows Explorer or My Computer, create a temporary directory on your C: drive where you will store the installation files (e.g., C:\FFITemp).

6) Open a browser, go to the **FFI-FRAMES website** and then go to the Manuals and Software page, Software Instructions and Training Data tab.
8) Right-click FFI-Lite_1050808_Installer.zip, select **Save link as...** and save the file in the temporary directory you created above.

7) Close your browser.

8) In *Windows Explorer* or *My Computer* navigate to the temporary directory where you saved the FFI-Lite zip file. Right-click the filename, select **Extract All** and save the FFI-Lite folder in the same folder as the zip file.

9) Open the FFI-Lite folder and double-click the FFI-Lite installation file in the temporary directory: **Setup.exe**.

10) The FFI-Lite Setup Wizard page will open. Click **Next**.

11) Accept the default installation folder and click **Next**.
12) Click **Next** on the Confirm Installation screen.

13) Click **Close** when the installation is complete.

14) The FFI-Lite 1.05.08.08 icon will be placed on your desktop.

15) Double click the FFI-Lite icon to open FFI-Lite, select the **Open an Existing Database** radio button, click **More Files...**, click **OK**.
16) Navigate to your database and click **Open**.

17) Click **Yes** and then **OK** when prompted to patch to the new version.

18) Continue logging into your database by selecting the Administrative Unit, etc.

19) You are ready to use FFI-Lite.
FFI UPGRADE INSTRUCTIONS FOR FOREST SERVICE USERS

The Forest Service is requiring any SQL Server Express users to install SQL Server Express 2012 and install it in a different directory than the Microsoft default. You do not need to reinstall SQL Server Express 2012 if you have already installed it for a previous version of FFI.

General steps for installing SQL Server and FFI: Complete the Create Database Backups section. If you are using a SQL Server version older than 2012, follow the steps in the SQL Server Express 2012 Installation section (check the Start menu to check the SQL version). Last, complete the instructions in the FFI Installation section.

Create Database Backups

1) Open FFI Database Administration, log in and make backup files of your database(s). Save the .bak files in a safe place - an external drive or server that is not the same location as the FFI database files you typically use.

2) Close FFI Database Administration when you are finished backing up your databases.

NOTE: If you are unable to save backups to the default SQL Backup folder because of folder permission issues try saving them in the C:\Tmp folder or on a flash drive. If those don’t work then log into FFI and, on the Administrative Unit selection screen, export all Administrative Units by checking all the boxes on the left and clicking Export Admin. Unit(s) on the right. Then contact Duncan Lutes for more help – 406-329-4761.
SQL Server 2012 Installation

If you have already installed SQL Server Express 2012 for use with FFI you can skip this section; SQL Server Express 2012 does not need to be reinstalled.

CAUTION: Follow these SQL installation directions carefully. There are a number of options you must change during installation of SQL. Review each step before proceeding and use the Back button if you think you missed something. Also, remember the password you select in Step 17 or you will not be able to use FFI.

NOTE: If you have existing FFI databases be sure make backups of each one before installing SQL Server 2012.

1) Click the link below (or copy and paste the URL into a browser) to go to the SQL Server 2012 Express download site:


2) Click Download
3) Check the box next to `ENU\x86\SQLEXPR_x86_ENU.exe` and click **Next**

*NOTE: Download size is 116.7 MB. You can use this file to install SQL Server 2012 on machines running both 32 and 64 bit Windows operating systems.*

4) Click **Save**. **Do Not** select Run.
5) Navigate to a temporary folder (e.g., C:\FFITemp) and click **Save**.

6) After the download is complete close your browser.

7) Using *Windows Explorer* or *My Computer*, navigate to your temporary FFI folder, right-click on SQUEXPR_x86.EXE, select *Run Elevated*, type a justification and click **OK**. A progress bar will appear while the files are being extracted.
8) When the SQL Server installation Center window opens it will be set at the Installation step shown on the left side of the screen. Click the top option to install a **New SQL Server stand-alone installation or add features to an existing installation**.

9) A progress bar will display as the Setup Support Rules are checked. This process checks to make sure the system is capable for completing the SQL Server installation. You will be warned if system updates and/or changes are needed.
10) Check the box to accept the License Terms and click **Next**.

11) The Install Setup Files Screen will be displayed.

12) If you are not connected to the internet the Project Updates window may display. You may click **Next** to ignore checking for updates. Windows will check for updates the next time the computer is connected to the internet.
13) A progress bar will be displayed as the Setup Support Rules are checked.

14) On the Feature Selection window make sure the boxes are checked for Database Engine Services, SQL Server Replication and SQL Client Connectivity SDK. Click **Next**.
15) On the Instance Configuration window you must change the **Instance Root Directory** to `C:\Users`. If there is already a SQL Server Express instance installed on the computer enter a new name in the **Named Instance** field (e.g., SQLEXPRESS2). Remember the SQL Instance name as you will need to connect to that instance name when using FFI. Click **Next**.

![Instance Configuration Window](image1.png)

**IMPORTANT:** Click the box with three dots and change this directory to `C:\Users`

16) On the Server Configuration window set the SQL Server Browser to **Automatic** and click **Next**.

![Server Configuration Window](image2.png)
17) On the Database Engine Configuration window click the **Mixed Mode** radio button, enter your **Password** and confirm it. If you are IT staff installing SQL Server for a user then the user must be added as a SQL Administrator. No changes are needed on the **Data Directories** or **User Instances** tabs. Click **Next**.

**NOTE:** Select a password that you can remember because you can't access your FFI database(s) without it. If you are IT staff installing FFI for a user make sure you let the user know what password you selected for them.

When password complexity policy is enforced, new passwords must meet the following guidelines:

- The password does not contain the account name of the user.
- The password is at least eight characters long.
- The password contains characters from three of the following four categories:
  - Latin uppercase letters (A through Z)
  - Latin lowercase letters (a through z)
  - Base 10 digits (0 through 9)
  - Non-alphanumeric characters such as: exclamation point (!), dollar sign ($), number sign (#), or percent (%).


**IMPORTANT:** If you are IT staff you will need to add the user as a SQL Administrator using their Windows login.
18) No changes are needed on the Error Reporting window. Click Next.

19) A progress bar will be displayed on the Installation Progress window as the SQL Server Express is installed. Click Next when complete.
20) The **Complete** window will display any errors encountered while installing SQL Server Express. If no errors are shown click **Close** and then **Exit** the SQL Server **Installation Center** window.

If errors are displayed, help may be linked on the screen or a Google search of the issue may help resolve it.

21) SQL Server installation is complete.

### Setting SQL Server to Run as a Local System

When SQL Server Express 2012 is initially installed it is set to run under an account. In almost all cases the server instance will eventually stop within a few days and need to be restarted as a Local System. You can wait until later to restart SQL Server or change it now following these instructions.

**NOTE:** The instructions are written for SQL Server Express 2012 but they should be similar for other versions.

1) Open **SQL Server Configuration Manager** following these steps:

- In Windows Explorer or My Computer navigate to `C:\Windows\SysWOW64`.
- In that folder look for a file named `SQLServerManagerxx.msc`, where `xx` is based on the SQL Version you are modifying:
  - SQL 2012 = `SQLServerManager11.msc`
  - SQL 2014 = `SQLServerManager12.msc`
  - SQL 2016 = `SQLServerManager13.msc`
  - SQL 2017 = `SQLServerManager14.msc`
- Right-click on the `.msc` file and select **Run Elevated**, type a justification and click **OK**.
2) SQL Server is the only item in the right pane you need modify. Right-click on the SQL Server entry and select **Properties**.

3) The window should open to the Log On tab (if not, select it). Click the radio button for *Built-In Account* and select **Local System** from the dropdown list. Click **Apply** at the bottom. Wait a few seconds for change to take place.

4) Click the **Start** button. A scroll bar will appear as the SQL attempts to start the service. The SQL Server service will successfully start. If you receive a warning that the operation timed out then further consultation with your IT person, a Google search or other help is needed. In many cases SQL Server will need to be reinstalled.

5) Close the **SQL Server Configuration Manager** window.
FFI 1.05.08.08 Installation

For users of FFI v1.04.00 - 1.05.04.00

- If you are new FFI user or need more specific installation instructions see the Installation section of the FFI User Guide which is available on the FFI Software and Manuals page at: www.frames.gov/ffi.

- The instructions in this document assume you are using FFI only on a desktop. If using a database master (server) configuration FFI will need to be updated on the server and every computer accessing the server.

- You must have Windows administrator privileges or ability to “Run Elevated” to install FFI on your computer. A standard Windows user can use FFI after a Windows administrator has installed it.

- If you have problems with FFI installation post a message on the Google Group or contact Duncan Lutes, dlutes@fs.fed.us, 406 329-4761

1) Uninstall the previous version of FFI. Click the Uninstall or Change a Program icon on the desktop (Power Broker), select FFI 1.0x.xx and click Uninstall. (NOTE: This step is not required - you can have multiple versions of FFI installed on the same computer – but removing old versions will eliminate confusion about what version to use.)

2) Close the Uninstall or Change a Program window after FFI has been removed.

3) Open Windows Explorer or My Computer, create a temporary directory on your C: drive where you will store the installation files (e.g., C:\FFITemp).

4) Open a browser, go to the FFI-FRAMES website and then go to the Manuals and Software page, Software Instructions and Training Data tab.

5) Right-click FFI-Lite_1050808_Installer.zip, select Save link as... and save the file in the temporary directory you created above.

6) Close your browser.

7) In Windows Explorer or My Computer navigate to the temporary directory where you saved the FFI zip file. Right-click the filename, select Extract All and save the FFI folder in the same folder as the zip file.

8) In Windows Explorer or My Computer, open the folder you just unzipped, right-click on Setup.exe, select Run Elevated, type a justification and click OK
9) If Microsoft .NET Framework 3.5 SP1 is not currently installed on the computer you will be directed to install it.

10) The FFI Setup Wizard page will open. Click **Next**.

11) Accept the default installation folder and click **Next**.
12) Click **Next** on the Confirm Installation screen.

13) Click **Close** when the installation is complete.

14) Three FFI icons will be added to your desktop:
   - Protocol Manager 1.05.04.00
   - FFI Database Administration 1.05.04.00
   - FFI 1.05.04.00

15) Close Windows Explorer or My Computer.
16) To patch your database to the new data schema, log in to FFI Database Administration 1.05.08, highlight the database you would like to patch and select Database>Patch Database.

17) Click OK to patch the database.

18) The SchemaVersion and SchemaVersionFromDatabase will be updated to the new version.

20) You are ready to log in and use FFI 1.05.08.08
FFI-Lite 1.05.08.08 Installation

You must have Windows administrator privileges or ability to “Run Elevated” to install FFI-Lite on your computer. A standard Windows user can use FFI after a Windows administrator has installed it.

1) Make a copy of your FFI-Lite databases(s) and save on an external drive. FFI-Lite databases have an .SDF extension. Right-click the database file, select Copy, Open Windows Explorer or My Computer and navigate to the folder where you save backups, right-click in the folder and select Paste.

2) Uninstall the previous version of FFI-Lite. Click the Uninstall or Change a Program icon on the desktop (Power Broker), select FFI 1.x.xx and click Uninstall. (NOTE: This step is not required - you can have multiple versions of FFI installed on the same computer – but removing old versions will eliminate confusion about what version to use.)

3) Close the Power Broker window after FFI has been removed.

4) In Windows Explorer or My Computer, create a temporary directory on your C: drive where you will store the installation files (e.g., C:\FFITemp).

5) Open a browser, go to the FFI-FRAMES website and then go to the Manuals and Software page, Software Instructions and Training Data tab.

6) Right-click FFI-Lite_1050808_Installer.zip, select Save link as... and save the file in the temporary directory you created above.

6) Close your browser.

7) In Windows Explorer or My Computer navigate to the temporary directory where you saved the FFI-Lite zip file. Right-click the filename, select Extract All and save the FFI-Lite folder in the same folder as the zip file.

8) Open the FFI-Lite folder, right-click on Setup.exe, select Run Elevated, type a justification and click OK.
9) The FFI-Lite Setup Wizard page will open. Click **Next**.

10) Accept the default installation folder and click **Next**.

11) Click **Next** on the Confirm Installation screen.
12) Click **Close** when the installation is complete.

![Installation Complete](image1)

13) The FFI-Lite 1.05.08.08 icon will be placed on your desktop.

14) Double click the FFI-Lite icon to open FFI-Lite, select the **Open an Existing Database** radio button, click **More Files...**

![Select a database to open](image2)

15) Click **OK**. Navigate to your database and click **Open**.

![File name](image3)
16) Click **Yes** and then **OK** when prompted to patch to the new version.

17) Continue logging into your database by selecting the Administrative Unit, etc.

18) You are ready to use FFI-Lite.