



# FXEditor

## 1 Introduction

After implementing the visualisation of special effect (FX) files in my ModelConverterX tool, the idea was born that the same rendering logic could also be used to make the editing of such files easier. The FXEditor tool is the result of that idea. It combines a text editor where you can edit the FX file with a preview that will directly show the effect of any changes that you make to the effect file. This way you can do a lot of testing outside of the simulator already.

## 2 Installation

Installing FXEditor is as simple as downloading the latest release and then unzipping it to a folder of your choice. To be able to run FXEditor you need to make sure that you have the Microsoft .NET Framework version 4.0 installed on your computer.

If you want to uninstall FXEditor later on, all you have to do is delete the folder where you unzipped it.

## 3 User interface

In Figure 1 you see the user interface of FXEditor. There are three elements in the user interface:

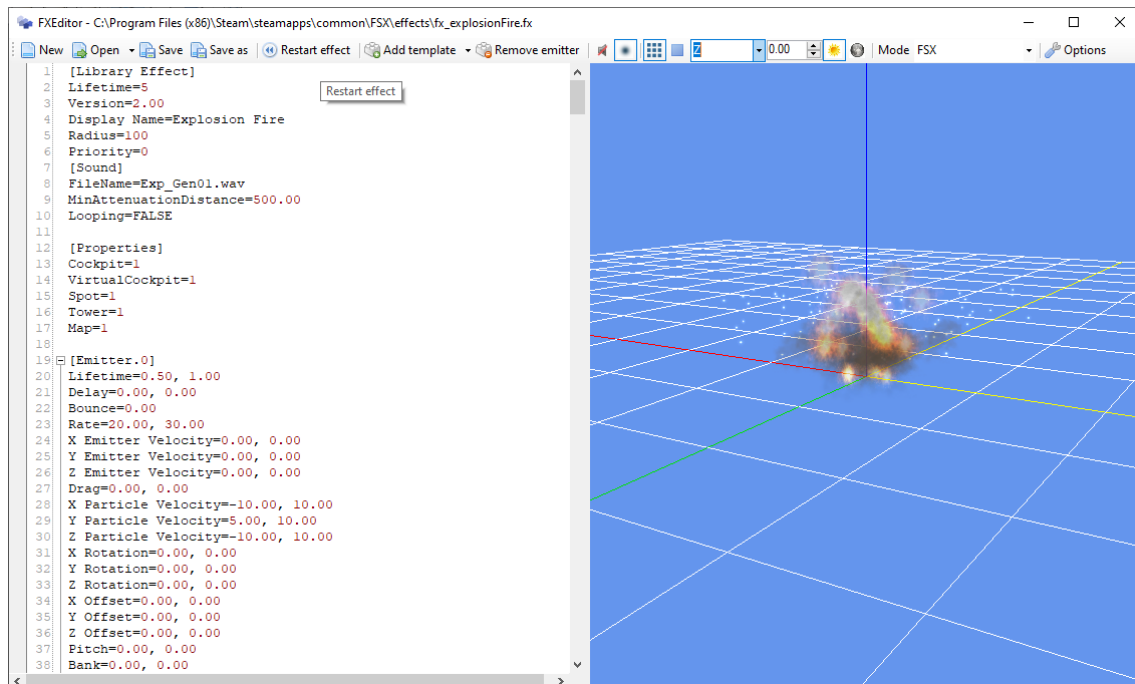


Figure 1: The FXEditor main screen

- A toolbar with buttons at the top.

- A text editor on the left where you can edit the FX file.
- A preview window on the right that will render your FX file.

The basic workflow is that you load a FX file into FXEditor and as you start editing the file (by typing into the text editor part of the interface), the preview will automatically update and show you how the FX file will look in the same.

In the text editor you can use the code folding symbols to collapse a Emitter, Particle or ParticleAttributes section, thereby making it easier to navigate through long files.

### 3.1 Toolbar

In the toolbar of FXEditor you find buttons for the following actions:

- **New** creates a new empty FX file in the text editor.
- **Open** brings up a file selection dialogue where you can select the FX file that you want to load into FXEditor. With the arrow symbol new to the button you can bring a list of recently opened files to select from.
- **Save** saves the loaded FX file to disk.
- **Save as** brings up a file save dialogue where you can enter the name with which the currently loaded FX file will be saved to disk.
- **Add template** will add a new template at the end of the effect file. When you click on the button you get a list of templates to choose from. The template files are located in the **FXTemplates** folder of your FXEditor installation. So you can add new template files there yourself as well and then they will show up in the menu. By default FXEditor includes the following templates:
  - Empty FX
  - Empty controller
  - Sound section
  - Light emitter
  - Dynamic light emitter (P3D v4 and above)
  - Sprite emitter
  - Debris emitter
- **Remove emitter** will remove the emitter (and related particle and particle attributes) section where the cursor is currently located in the text editor.
- **Restart effect** will restart the visualisation of the effect from the start, so that you can see it again.
- **Mute sound** will mute any sound that is part of the FX file.
- **Fade particles** determines if the fading of particles is shown in the preview or not. Sometimes an effect is easier to inspect when the fading is turned off, by default it is on.
- **Display grid** determines if the reference grid is shown in the preview or not. This grid is on by default and gives you some reference about the size of the effect.
- **Display plane** determines if a reference plane is shown in the preview or not. This plane is useful when inspecting spot light effects, else these are only visualized when the light shines onto some geometry. See figure 2 for an example of using the reference plane.
- **Planes up axis** the axis along which the normal vector of the plane is pointing. You can select X, Y or Z.

- **Plane offset** the offset of the plane in meters from the origin along the selected axis. This can be used to move the plane to different distances from the light and inspect the effect of that.
- **Day mode** selects that the day render mode is used.
- **Night mode** selects that the night render mode is used.
- **Mode** selects which FS version FXEditor uses. The textures are read from the effects texture folder of the selected FS version.
- **Options** brings up the options form, as discussed in section 3.2.

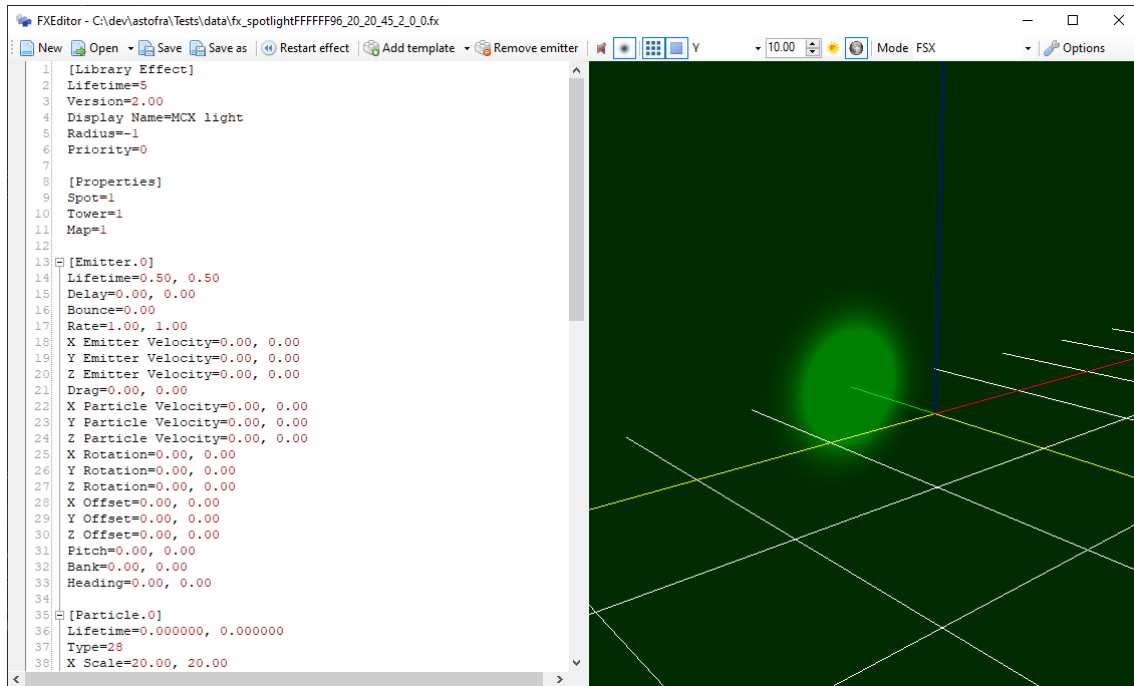


Figure 2: Example of using the reference plane to inspect a spot light. The plane is put in the direction of the Y axis with an offset of 10 meters to see the effect of the spot light more clear.

## 3.2 Options

In Figure 3 you see the options form of FXEditor. In this form you can specify the path to the different versions of Flight Simulator and Prepar3D that you have installed. With the checkbox in front of the version you specify if this version is enabled in FXEditor. The round option box is used to indicate which version is your preferred version, if you have installed multiple versions.

At the bottom of the options form you can also specify the colors that are used in the preview for the background in day and the night rendering mode and the color of the reference plane. If you click on these colors a selection dialog appears when you can select a new color.

## 4 Known limitations

- The tool tries to render the effect as similar to FS as possible, but since it is not documented how FS does this exactly you might see that the effect is shown different in FS. If this is the case, please provide me some feedback so that I can improve the tool.
- Effects that are extruded along a line in FS, like waves, are not visualized correctly at the moment.

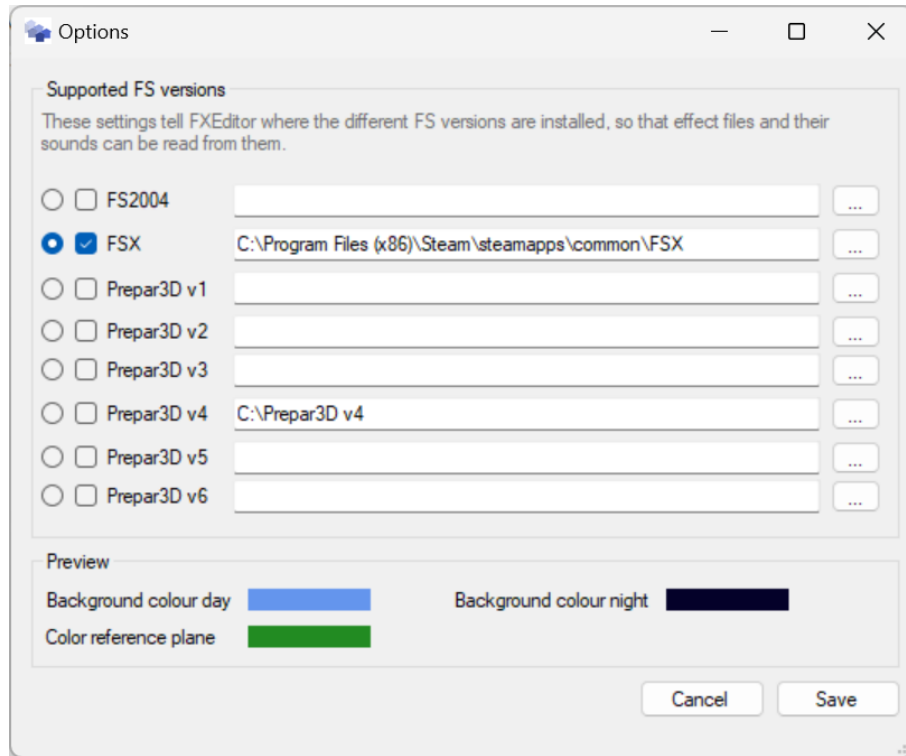


Figure 3: The FXEditor options form

- The tool can only play one sound file per effect. So if you have a controller which calls different effects, only the first sound will be played.

## 5 Support

If you have any problems while using the tool or if you have suggestions and other feedback to improve the tool, please let me know. You can either contact me directly or visit the FXEditor subforum at [FSDeveloper.com](http://FSDeveloper.com).

## 6 Thanks to

- Bill Womack for the idea to visualize special effects, which resulted in this tool in the end.
- Colin Fahey for his C# OpenGL wrapper.
- DigitalRune for their text editor control.
- All users on [FSDeveloper.com](http://FSDeveloper.com) whole helped to discuss the tool and who tested the development releases.

## 7 User license

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