

Lightwave FBX Plugins Guide

Version 6.0
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Chapter 1

Installing the Lightwave FBX Plugins

Overview

FBX plugins are used by Lightwave® to import, export, and convert files using the .fbx file format. This document describes how to install FBX plugins on Windows® and Mac™ OS X systems for LightWave.

Plugins for Lightwave are available for use with Windows 2000/XP and Mac OS X.

Manual Installation

In order for your 3D software to use the Lightwave plugins, you must manually move these files into the proper directories.

This section describes the naming conventions, supported software versions, and the installation process for manually installing and removing the FBX Plugin for LightWave 3D.



Note:

LightWave 3D FBX plugins are currently available on the Windows and Mac OS X platforms only.

LightWave 3D Plugin Naming Conventions

LightWave 3D FBX plugins conform to the following naming conventions:

`fbx1w80.p`

The plugin extension .p is a standard .dll file that uses a non-standard extension, as required by LightWave 3D.



Note:

A plugin's name can be changed as long as the extension (.p) stays the same.

Supported LightWave 3D Versions

The FBX Plugins are only available for LightWave 8.0. These plugins will not run correctly on other versions of LightWave:

`fbx1w80.p`

Installing the LightWave FBX Plugin on Windows

If, in earlier versions of LightWave, you had created any menu items to import, export, or merge fbx scenes, they will have to be removed and re-created.

1. Locate the `fbx1w80.p` file. By default, the plugin files are copied to the `C:\Alias\FBXPlugins<fbxver>\1w80` folder.
2. Make sure that the version number of the plugins matches the version of LightWave 3D installed on your computer. Plugins run correctly only on the version of LightWave 3D for which they were created.
3. Remove all old versions of the LightWave 3D FBX plugins before copying the new plugin.
4. Copy the `fbx1w80.p` plugin file into the `\lightwave-3d-80\Plugins\Input-Output` folder.
5. Launch LightWave 3D Layout.
6. Click Utilities>Add Plugins. The file browser appears, prompting you for a .p plugin.
7. Select the copied `fbx1w80.p` plugin file in the `\Plugins\Input-Output` folder, and click Ok.

If the plugin is installed correctly, the options “Export to FBX”, “Import from FBX”, and “Merge with FBX” appear in the Edit>Edit Menu Layout menu, in the Plug-ins Command list.

8. Add the FBX command to your File menu. Select "Edit>Edit Menu Layout...", then drag the commands "Import from FBX" and "Merge with FBX" from Plug-ins to your "File>Import" menu. Drag the command "Export to FBX" to your "File->Export" menu.

Removing the LightWave FBX Plugin from Windows

1. Exit LightWave.
2. Go to the FBX Plugin Install shield.
3. Locate the LightWave plugin.
4. Disable the LightWave option.

Installing the LightWave FBX Plugin on Mac OS X

If, in earlier versions of LightWave, you had created any menu items to import, export, or merge fbx scenes, they will have to be removed and re-created.

1. Double-click the package icon to start the installation.



Note:

*The LightWave FBX Plugin is installed to the selected disk drive in the following folder:
<Macintosh™ Drive>/Applications/LightWave 3D 80/Plugins/Input-Output.*

2. Enter your login password to continue the installation when prompted.



Note:

You must obtain administrator privileges to continue installation.

The Welcome window appears.

3. Click Continue to start the installation process.
4. Select a destination disk for your application to be installed and click Continue.

5. Click Install (or Upgrade). A progress bar indicates the time remaining of the installation; when the progress reaches 100%, the Finish button is activated.

6. Click Finish to exit the installation program.

7. Launch LightWave 3D Layout.

8. Click Layout>Plug-ins>Add Plug-ins. The file browser appears, prompting you for a .p plugin.

9. Select the copied *fbxlw80.p* plugin file in the *\Plugins\Input-Output* folder, and click Ok.

If the plugin is installed correctly, the options “Export to FBX”, “Import from FBX”, and “Merge with FBX” appear in the Edit>Edit Menu Layout menu, in the Plug-ins Command list.

10. Add the FBX command to your File menu. Select "Edit>Edit Menu Layout...", then drag the commands "Import from FBX" and "Merge with FBX" from Plug-ins to your "File>Import" menu. Drag the command "Export to FBX" to your "File->Export" menu.

Disabling the LightWave FBX Plugin

1. Launch LightWave 3D Layout.
2. Select Layout|Plug-ins|Edit Plugin.
3. Click File.
4. Locate the *fbxlw80.p* plugin in the list, select it, and click Delete to remove the plugin.
5. Exit LightWave 3D.

Removing the LightWave FBX Plugin from Mac OS X

1. Exit LightWave
2. Locate the *fbxlw80.p* plugin. This file is found in the *<application directory>/Plugin/Input-Output* directory.
3. Delete the *fbxlw80.p* file.

Renaming Plugins

All plugins can be renamed as long as you do not change the file extension. However, it is only advisable to rename files when you want to keep more than one version of the FBX Plugins in the same directory.

If you choose to backup your files, all files with the same name as those you are installing should be renamed with the extension `.FBX_BAK`.



Note:

It is recommended that you always remove old versions of FBX plugins before installing new versions.

Chapter 2

LightWave Plugin

Overview

This document shows you how to export *.fbx* files from LightWave, how to import *.fbx* files into LightWave, and how to merge back animation from *.fbx* files to LightWave.

This document also includes important information regarding the LightWave features supported by this version of the FBX plugin and MotionBuilder software.



Note:

For information on supported features between LightWave and other 3D software (cross-package support), consult the Alias website (<http://www.Alias.com>).

MotionBuilder software supports LightWave version 8.x and higher through the *FBXLW80.P* LightWave FBX plugin. Importing and exporting files between MotionBuilder software and LightWave 8.x is covered in “Using the LightWave Plugin” on page 5 and “Importing to LightWave” on page 5.

This plugin provides additional support for weight map deformations and multi-layered object deformations.

Using the LightWave Plugin

This section describes how to export models from LightWave using the *.fbx* file format, and how to import *.fbx* files into LightWave.

Exporting from LightWave

To export from LightWave:

1. Select File>Export>Export to FBX.

By default, the pop-up menu offers to export the FBX file with the same name and directory as your LightWave scene file.



fig 2-1: FBX Exporter menu.

2. You can modify this by clicking the browser button next to the Address field.
3. Select which parameters to export and click OK. Wait for a confirmation dialog box.

Importing to LightWave

To import to LightWave:

1. Launch LightWave 8.
2. Select File>Import>Import from FBX.
3. Use the file browser to select the FBX file to be imported, and the folder where your *.lwo* files are created (fig 2-2).

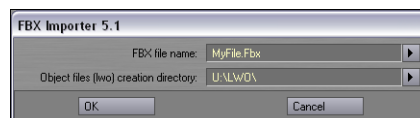


fig 2-2: FBX Importer window.

4. Select the take you want to import.
5. Click OK.

Merging Animation Back to LightWave

To merge back to LightWave:

1. Launch LightWave 8.
2. Load the original LightWave scene.
3. Save the scene as “working copy” (or any other temporary name).
4. Select File>Import>Merge with FBX
5. In the pop-up menu, click the browser button next to the address field, select the appropriate FBX file, and click OK.

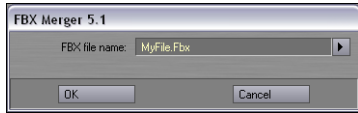


fig 2-3: FBX Merger window

Supported LightWave 8.x Features

This section lists the following LightWave features supported by the FBX plugin. Features are organized by object files, lights, and cameras.

! **Note:**
LightWave envelopes are treated as MOTIONBUILDER FCurves.

Object Files

SubPatch Objects	<p>SubPatch objects are not visible as a SubPatch surface inside MotionBuilder software.</p> <p>When exporting SubPatch objects, you can activate the Freeze option, which makes the object a Polygon mesh.</p> <p>If you do not activate the Freeze option, the Subpatch cage is saved as a mesh.</p>
Materials	Multiple materials are supported.

Textures	<p>Embedded textures are supported.</p> <p>Only UV texture maps are supported. Other mapping methods are not yet supported.</p>
TRS Animation	Translation, Rotation and Scaling animation is supported for importing and exporting.
Bones	Only Limbs are supported. Limb Nodes are converted to nulls.
EndoMorphs	<p>EndoMorphs are supported. Bone and Morph animations are both supported at the same time on the same object.</p> <p>The LightWave MorphMixer must be applied to the object before EndoMorphs can be imported into your MotionBuilder software.</p>
Line Polygons	Line polygons (polygons with two vertices) are supported on export.

Lights

Multiple Lights	Multiple lights are supported for importing and exporting.
Translation and Rotation	Translation and Rotation animation is supported for importing and exporting.
Lights in MotionBuilder software	<ul style="list-style-type: none"> • LW Point, Linear, and Area light = Point light • LW Spot light = Spot light • LW Distant light = Infinite light <p>All Lights keep their original light type when you merge back to LightWave.</p>
Cone Angle Animation	Light cone angle animation is supported.
Intensity Animation	Light intensity animation is supported.
Color Animation	Light color animation is supported.

Cameras

Multiple Cameras	Multiple cameras are supported for importing and exporting.
Camera Field of View Animation	Camera vertical and horizontal field of view animation is supported. They are converted to Zoom Factor in Lightwave.
Translation and Rotation	Translation and rotation animation is supported.
Camera Roll Animation	Camera Roll is supported when the camera has a Camera Interest (target).
Camera Interest	There is limited support for Camera Interest (target). The camera must not be parented.
Camera Pixel Ratio	Supported.
Camera Target	Improved camera target support. If you parent the camera, the animation is plotted to the camera.
Camera Up Node	Camera up node supported by plotting its effect on the camera roll animation.

Additional Features and Enhancements

This section lists the additional features and enhancements found in version 6.0 of the FBX plugins for Lightwave.

Merge Back

- Improved functionality. The merge back process no longer requires the FBX Root.

