



LVC for Unity Deployment Guide

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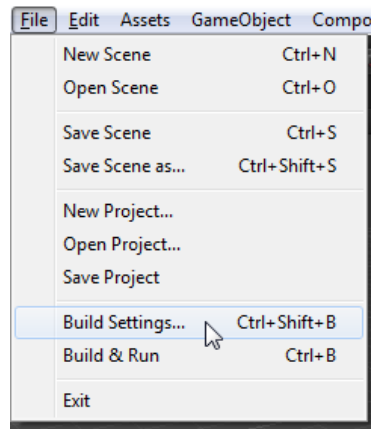
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1 Introduction

The Unity Editor allows developers to export a game they have created so that it can be distributed and played on environments which do not have Unity installed.



This guide outlines the steps required for creating stand-alone games when LVC Game for Unity is used.

1.1 Audience and Purpose

This guide is intended for software developers who wish to create standalone games built with LVC Game for Unity.

1.2 Compatibility Notes

Please note that LVC for Unity is currently supported on the Windows platform only. LVC for Unity will not work in other environments.

The Microsoft Visual C++ 2010 Redistributable Package is required for the LVC Game for Unity Plugin.

The installer for this package is available from Microsoft at the following URL:

<https://www.microsoft.com/en-us/download/details.aspx?displaylang=en&id=5555>

2 LVC Game for Unity Package Overview

2.1 Package Contents

The LVC Game for Unity package contains the following folders:

/Plugins

/LVCGame

/docs

User Manual, Developer's Guide, API documentation.

/resources

A ZIP file containing system libraries required for Unity and the Unity Editor to

work with LVC Game for Unity.

A ZIP file containing configuration files required for LVC Game for Unity to initialise and start.

`/scripts` C# scripts providing some examples of how to approach the creation of an LVC enabled Unity game.

The resources folder contains important libraries and configuration settings which are required for LVC Game for Unity to function.

When creating LVC Game for Unity enabled games in the Unity Editor environment, the developer extracts these libraries from within the imported LVC Game for Unity package and manually placed in the appropriate locations on disk (refer to the Quick Start Guide and Developer's Guide for more details).

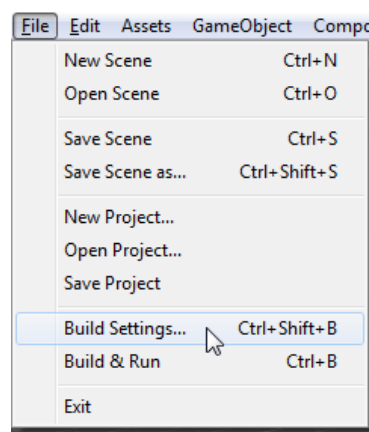
When creating a standalone LVC Game for Unity enabled game, these libraries and configuration files must be available for the game to use. Unity's standard Build process is not aware of these required resources, and so some extra steps are required after the standard Build process completes.

3 Creating Standalone LVC Game for Unity Games

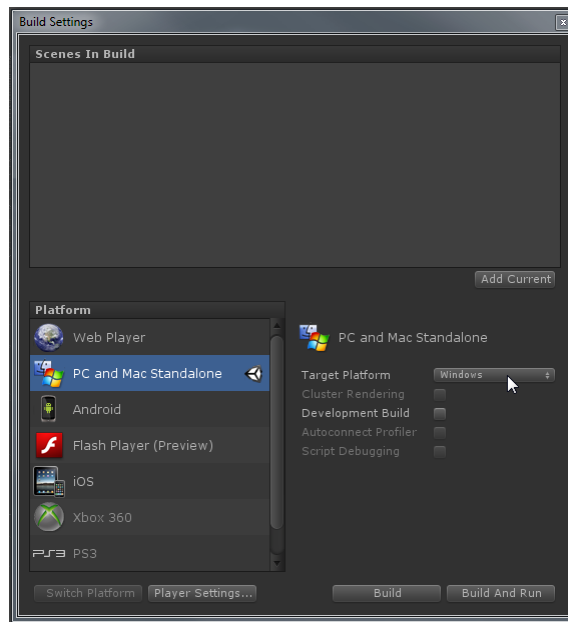
The following instructions assume that an LVC Game for Unity game has been created in the Unity Editor environment, and that the game is now ready to be built into a standalone executable.

3.1 Build the Game

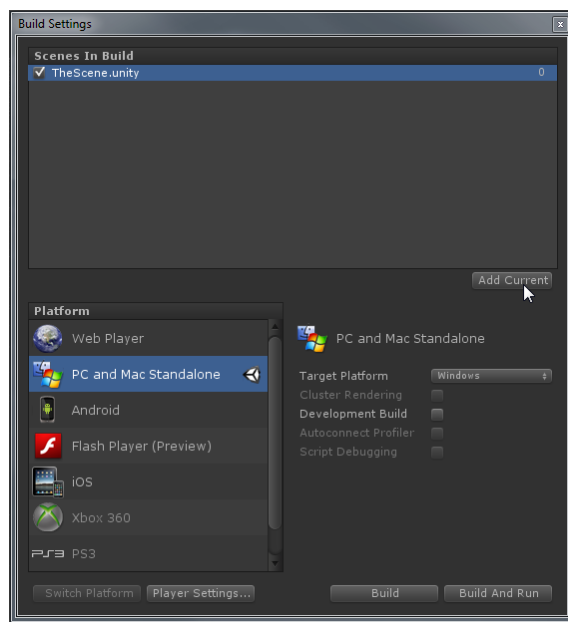
Start by building the Unity game– from the File menu, select “Build Settings...”



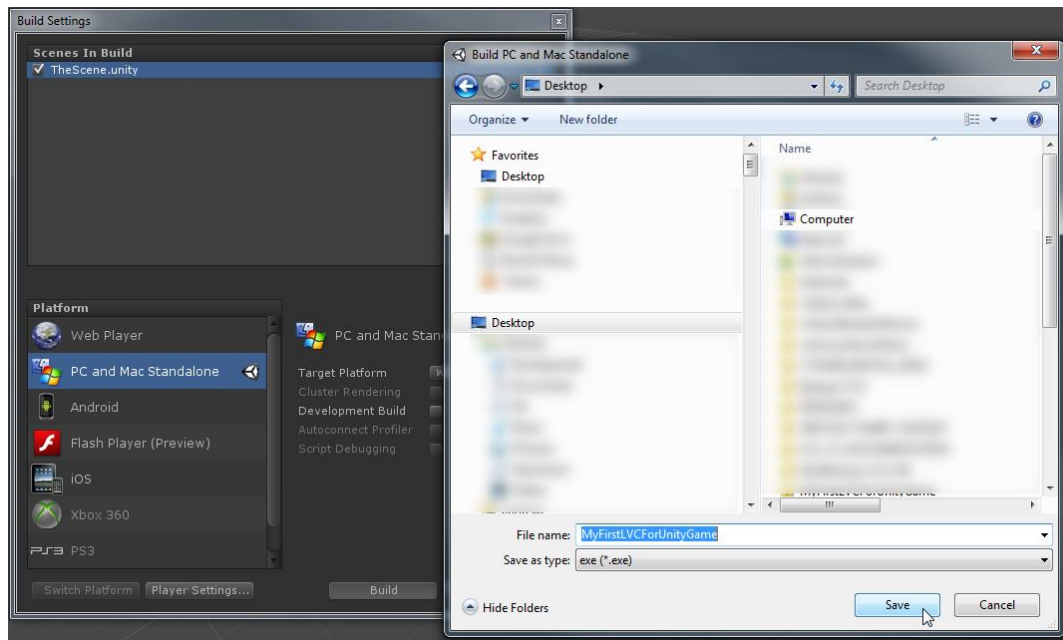
In the dialog which appears, ensure that “PC and Mac Standalone” is selected as the Platform, and that the Target Platform dropdown has “Windows” selected.



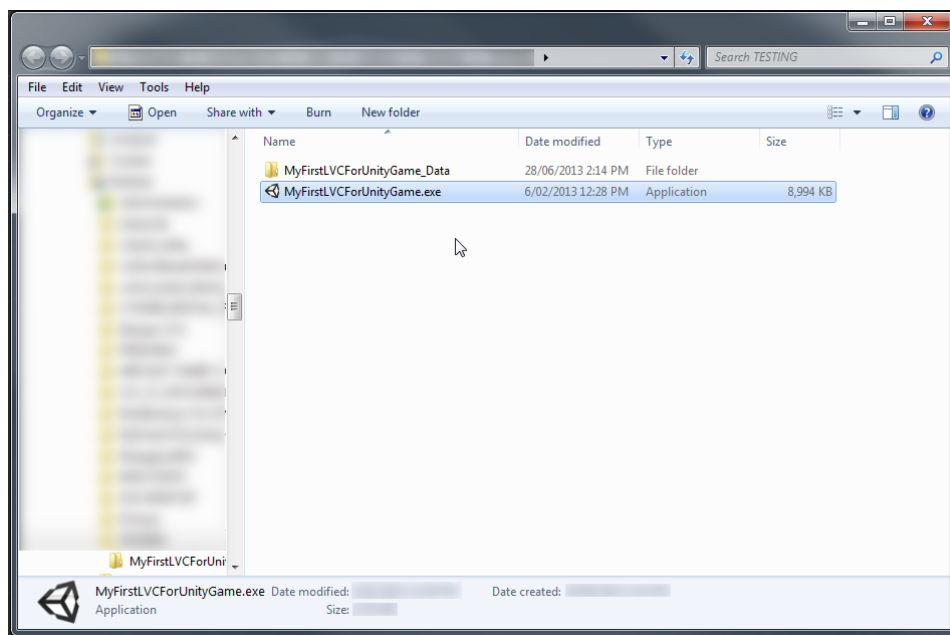
Next, add the scenes to be included in the build. This can be done by dragging and dropping the required scenes from the Project pane, or clicking the “Add Current” button:



Finally, click the “Build” button. Select a location for the game when prompted, and click “Save”.



Once the build process completes, Unity will automatically open the Windows file explorer at the location of the built game.



Notice that the build process has created a game executable file named [XYZ] .exe and a game data folder named [XYZ]_Data, where [XYZ] is the name which was supplied to the build process for the game.

In the above example, MyFirstLVCForUnityGame was entered as the game name, so MyFirstLVCForUnityGame.exe and MyFirstLVCForUnityGame_Data were created.

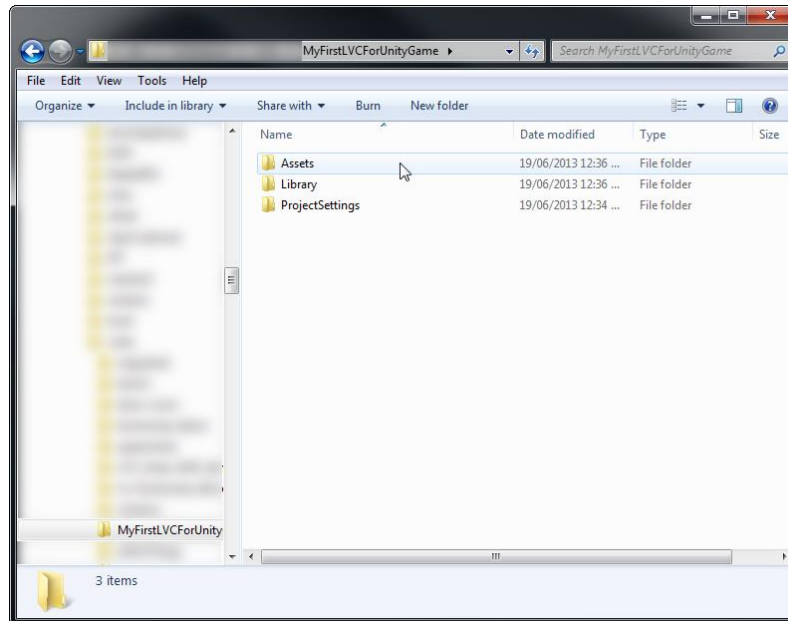
The executable file is the file that is run to play the game. The data folder contains the resources for the game.

3.2 Adding Required Resources

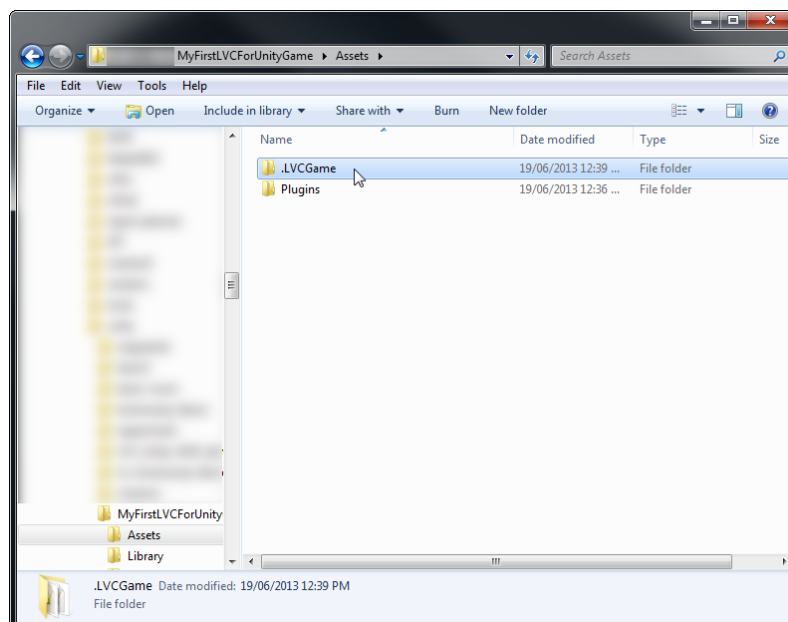
After building the game, the required LVC Game for Unity libraries and configuration must be added manually to the game resources.

3.2.1 Adding LVC Game for Unity Configuration

Using the file explorer, navigate to the location of the *project* folder of the Unity game – that is, the folder containing the Unity project for the game.

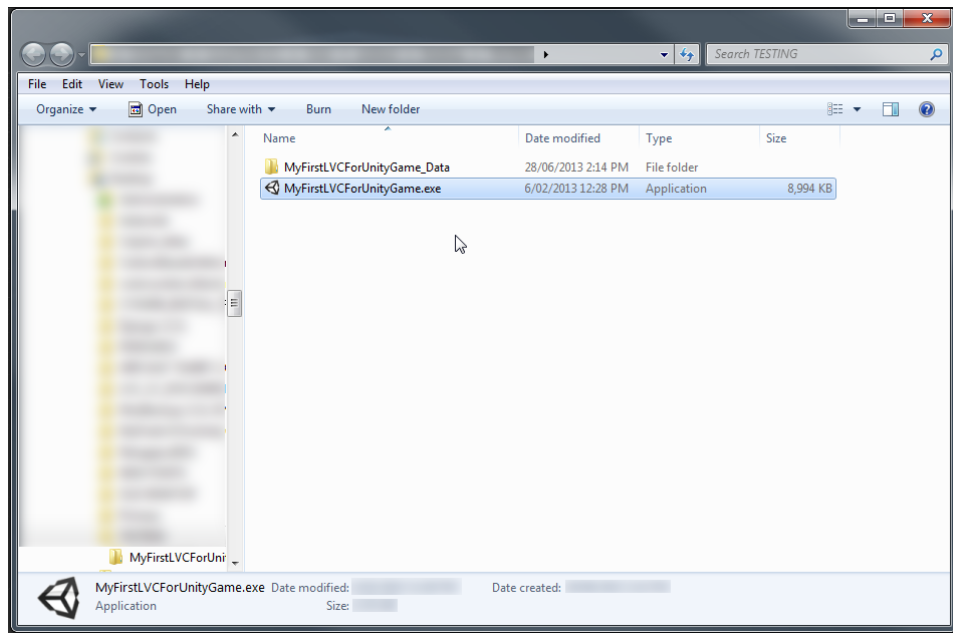


Navigate into the Assets folder of the project, and select the .LVCGame folder:

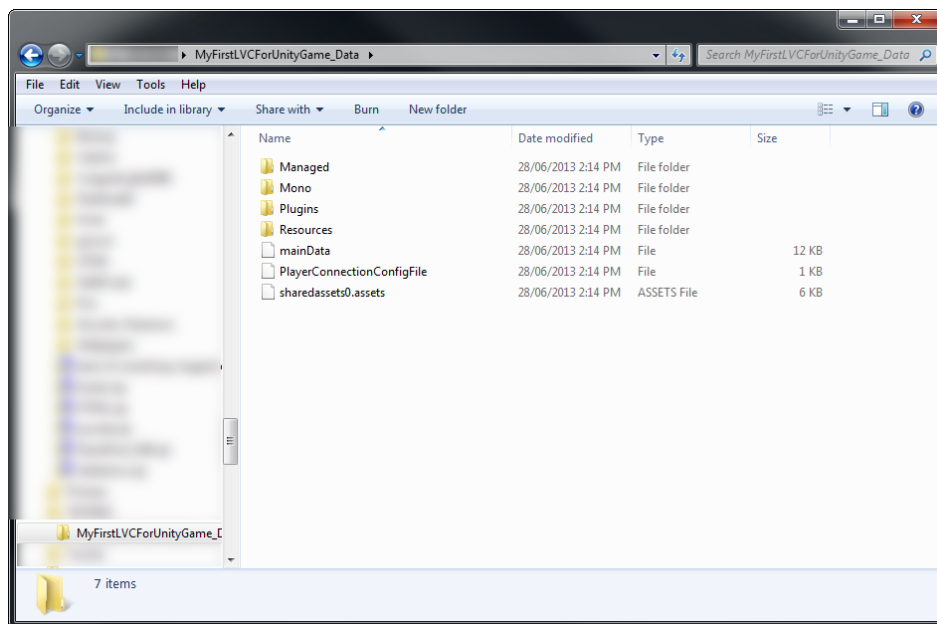


Copy the selected folder by either using the CTRL+C keyboard shortcut, or right-clicking on it and choosing "Copy" from the context menu which appears.

Again using the file explorer, navigate to the location of the built game:

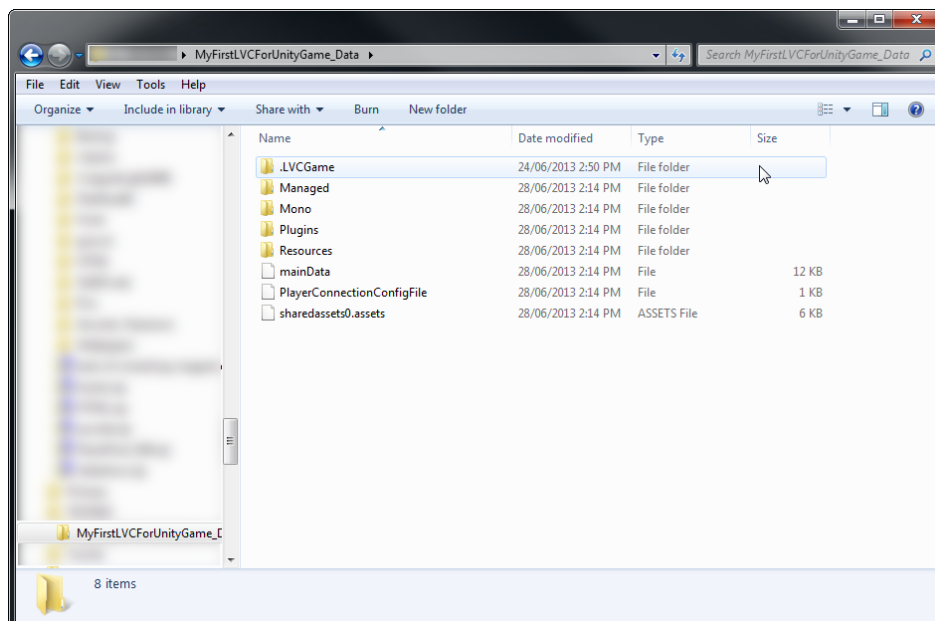


Navigate into the data folder of the game:



Paste the .LVCGame folder into it by either using the CTRL+V keyboard shortcut, or right-clicking in the folder and selecting “Paste” from the context menu which appears.

After pasting the .LVCGame folder, the game’s data folder should look something like this:



Note that the .LVCGame configuration could also be added by extracting the content of the LVCGameForUnityConfiguration ZIP file in the resources folder of the Unity package¹.

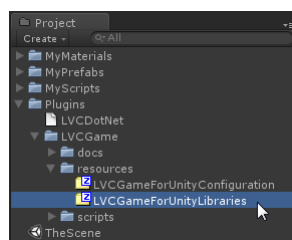
However the configuration obtained this way would be “fresh”, and not contain any configuration specific to the finished game – mappings and so on would not be populated, for example.

For this reason it is simpler to copy the .LVCGame folder directly from the Unity game project into the built game’s data folder.

3.2.2 Adding LVC Game for Unity Libraries

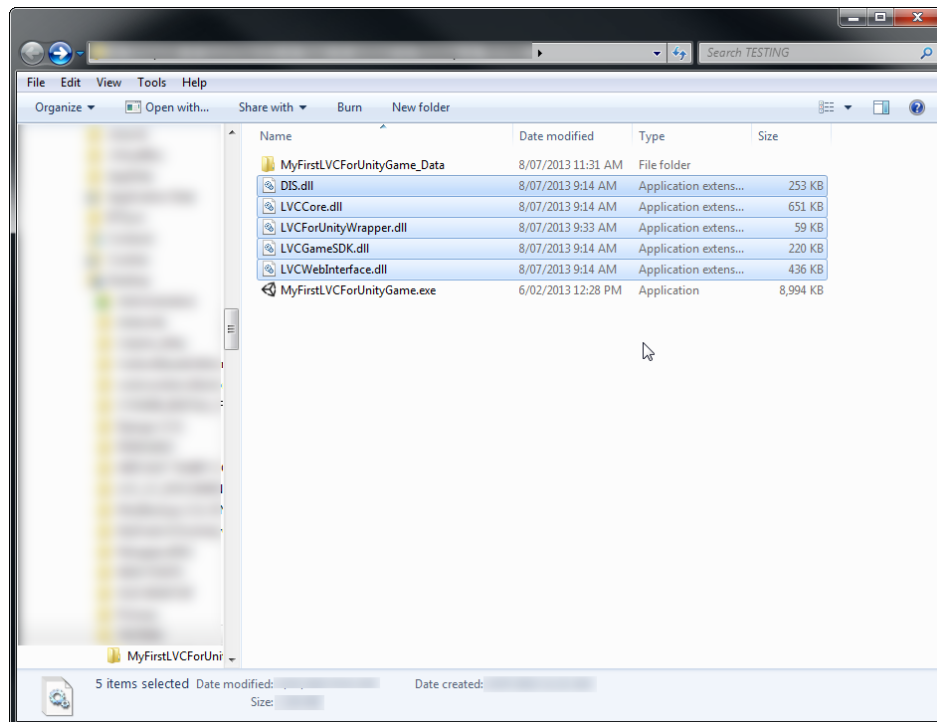
The LVC Game for Unity libraries need to be located in the same folder as the game executable.

Return to the Unity Editor. In the Project pane, navigate to the “resources” folder of the LVC for Unity Plugin, and double click on the LVCGameForUnityLibraries ZIP file to open it:



Extract the contents of the ZIP file into the same folder as the game executable:

¹ This is how the Unity Editor development environment is initially set up to create LVC Game for Unity enabled games. Refer to the Quick Start Guide or Developer’s Guide for more information.



3.2.3 Test the Game

The game should now be able to be run by double clicking on the game executable.

It might be necessary upon running the game to inform Windows that network traffic into and out of the game should be allowed. This is typically presented to the user as a prompt when running the game for the first time. Otherwise, a firewall exception may need to be added manually.

4 Conclusion

This document has described the process of deploying a standalone LVC enabled Unity game using LVC Game for Unity.