

## Maya Projects

When working with Maya, it is best to create Maya Projects. What is a Maya Project? Why is it necessary to present my Maya files as a Maya Project when I want to transfer my files to another computer? Let's find out!

### 1-Introduction to Maya Projects

Maya Project is a folder that contains a *workspace.mel* file. It also includes some subfolders. All the files that are used in the Maya scene should be saved in the Maya Project folder and preferably in the related subfolders. For example, Maya scenes could be saved in the *scenes* folder, image textures in *sourceimages* folder, and so on.

When we define and set up a Maya Project, then we are able to move the whole project folder to another computer without being worried if the scene is gonna load correctly. It is specifically crucial to be able to transfer Maya files non-destructively when you want to render on another machine. Setting up a Maya Project is super easy and first step to submit a render job on a render farm. My advice is to set up a Maya Project and adhere to its structure as soon as you start working with Maya. So let's see how to do it right from the beginning! But before that, Let's find out how Maya Projects work!

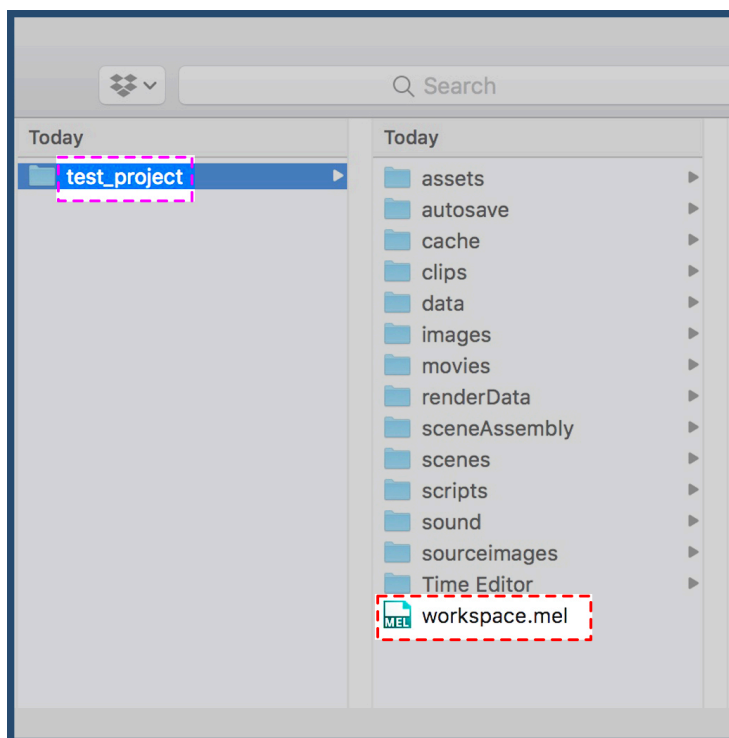


Figure 1-1. Default structure of a Maya Project: test\_project

## 1-1-How Maya Projects Work

So far, we have learned that Maya Project is a folder that contains *workspace.mel* file and enables us to move our Maya scenes from one computer to another without the scenes getting messed up. But how does Maya Project enables us to do that? Why can't I just put everything in a folder and move it to another computer?

Let's consider an example to find the answer to these questions. I created a sphere in a Maya scene and assigned a *PxrSurface* material to it. Then I connected an image, *textureImageRed.jpg*, to the color channel of the material in two different scenarios. First scenario(Figure1-2), without setting up a correct Maya Project, and second scenario after setting up a correct Maya Project(Figure1-3).

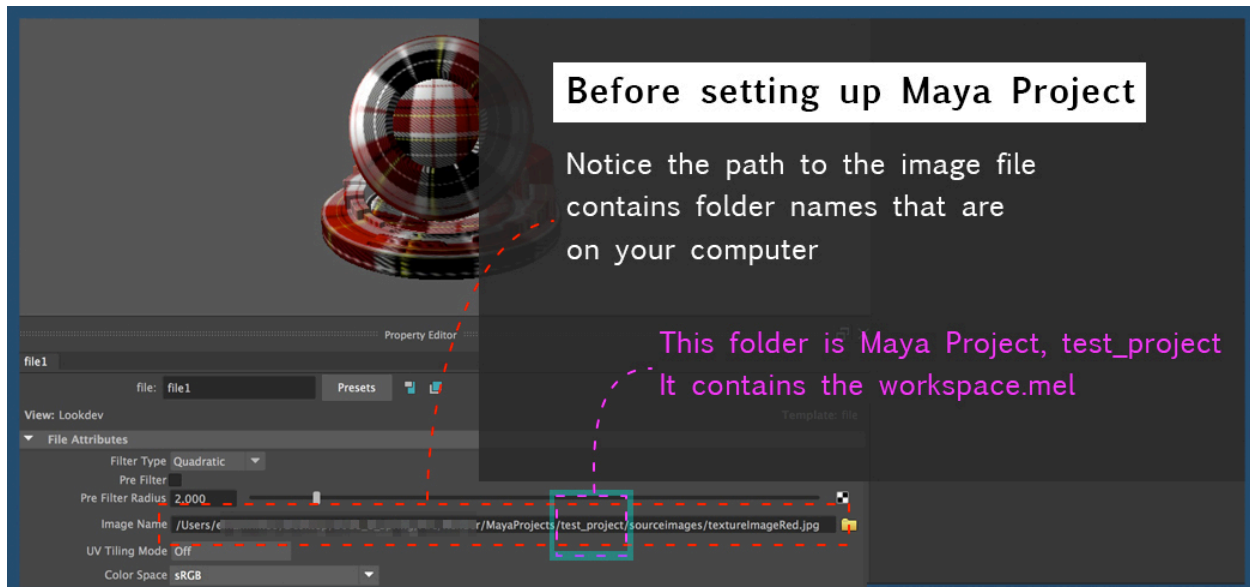


Figure 1-2. An example of a path without setting up a Maya Project.

As you can see in Figure1-2, when I assign the image to the material before setting up the Maya Project, the path starts with the *user* folder on my computer and goes down each folder until it gets to *textureImageRed.jpg*. This path is an absolute path. This means that file structure of my local machine, starting from the *User*, is included in the path. As a result, if I move the whole Maya folder to another computer, this path is not valid anymore and it doesn't lead Maya to *textureImageRed.jpg*.

Now, look at Figure1-2 in which I first set up my Maya Project to be *test\_project*, then assign *textureImageRed.jpg* to the material. As you can see here, the path has changed!

It doesn't start with the *User* folder on my machine, it starts at the folder that contains the *workspace.mel* file which we know is our Maya Project folder, *test\_project*. The path that is created this way, is a relative path. It considers the *workspace.mel* file as the beginning of the path and sees everything down the folder that contains this file.

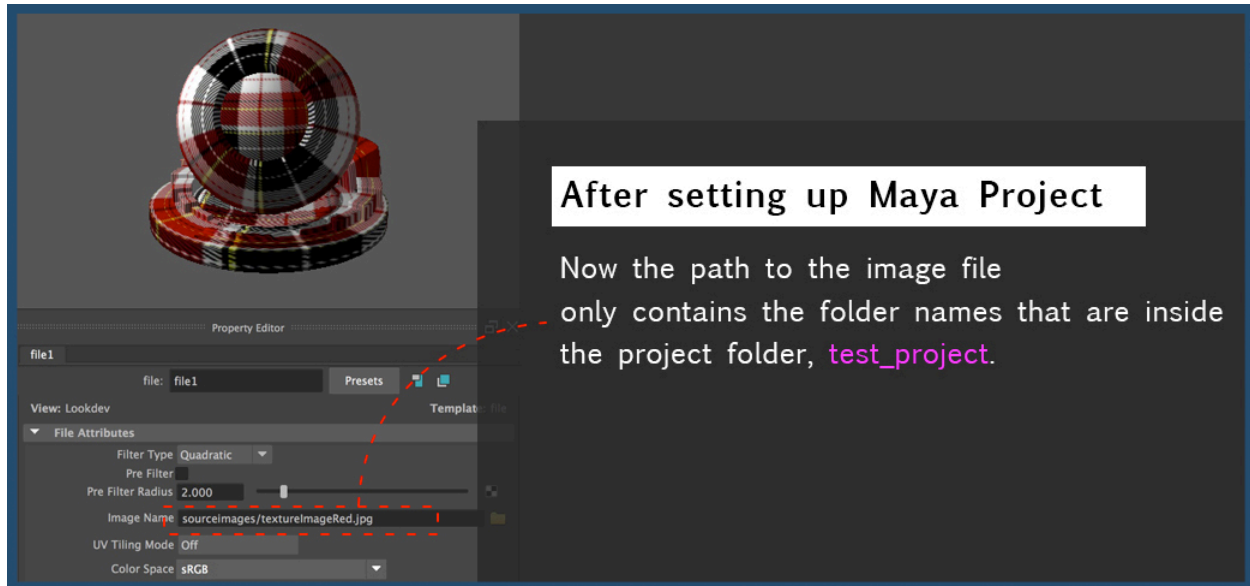


Figure 1-3. An example of a path after setting up a Maya Project correctly.

In simple terms, creating and setting up a Maya Project enables us to tell Maya what to see when it saves the paths to external files. If we don't maintain a Maya Project workflow, Maya sees everything regarding saving paths, and that causes problems when we transfer Maya files to another computer.

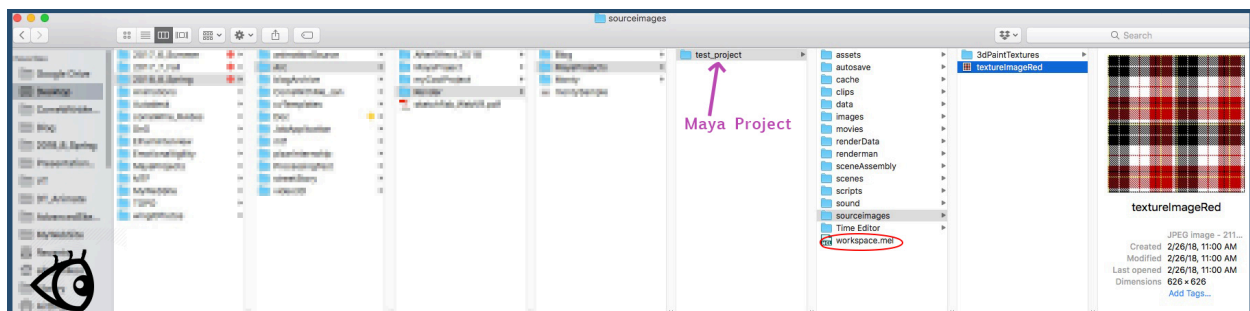


Figure 1-4. The path Maya sees when no Maya Project is set.

But when we adhere to Maya Project rules, and set everything correctly, Maya only sees down our project folder, and this way, our file structure is independent of our computer's file structure. As a result, when we move our Maya files, every path is still valid.

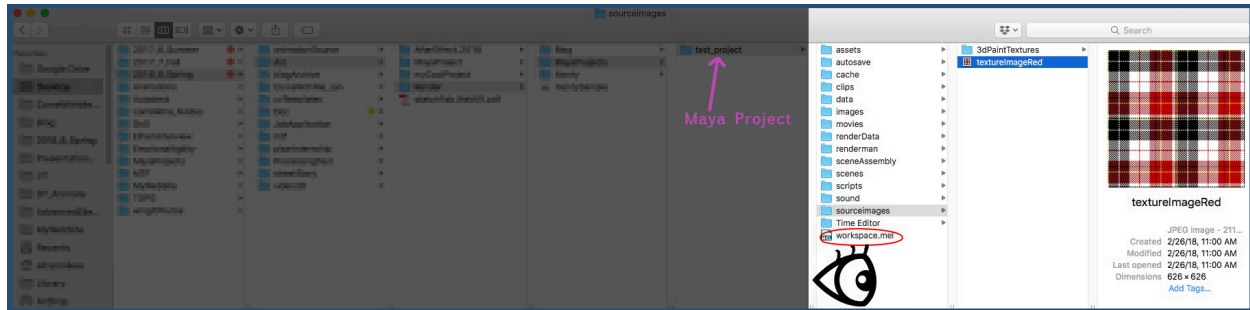


Figure 1-4. The path Maya sees Maya Project is set.

## Related Topics and Tutorials:

- Maya Documentation:  
["Organize Files into Projects" from knowledge.autodesk.com](https://knowledge.autodesk.com/docs/maya-project-organizing-files)

## 2-Creating and Setting Up Maya Projects

We start by creating a new Maya Project. To do so, open Maya application and go to *file>Project Window*. As you click on Project Window, a window is gonna pop that looks like Figure 2-1. Here you will create a new Maya Project and define a location for it. Once you generated a new Maya Project by hitting the *New* button, you can give your project a name.

Side note 1: Get into the habit of not using space in the names just to be safe. Some applications don't like it when there is a space in file names and get confused. Instead of naming a file: *"test project"*, you may name it: *"test-project"*, or *"TestProject"*.

Once you gave your project a name, Maya lets you define a location for your project. You may click on the folder icon in front of the location and navigate to a location you want the project to be created. When you are satisfied with the name and location of the project hit the *Accept* button. That's it! You just created a Maya Project.

Side note 2: See that line of text and slashes that define the location of your project folder? That is your project folder's path. Slash,/ means go inside the folder (or as they say in Computer Science world: go down one directory).

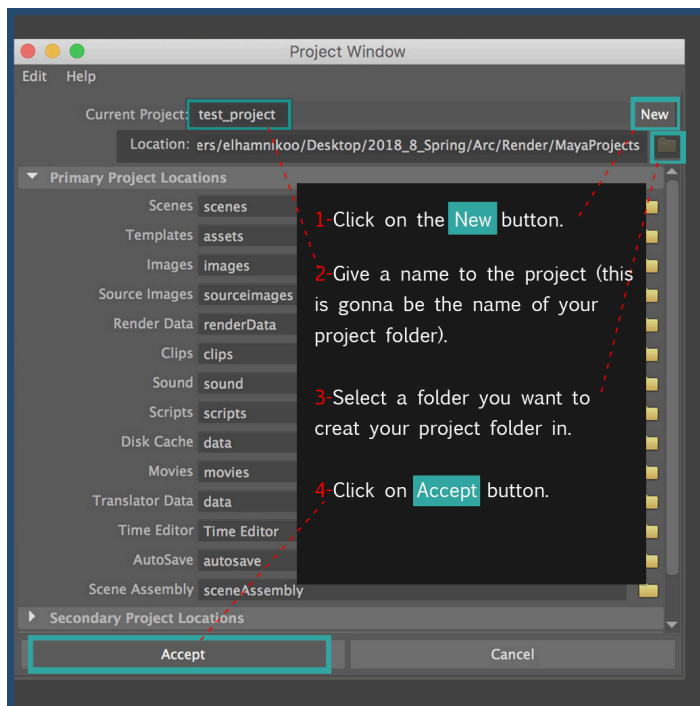


Figure 2-1. Clicking on File>Window Project this window will pop open.

## 2-1-Setting Up a Maya Project

Now that you created a Maya Project, you need to tell Maya where your project is. And you do that by going to *File>Set Projects*. As you click on *Set Project*, a window is gonna pop that let's you navigate to the location of your Maya Project folder. As I have mentioned in the introduction section, Maya Project is a bunch of folders and a file named: *workspace.mel*. When you set up your project, you are telling Maya where the folder that contains *workspace.mel* is. Maya will look inside this folder, and if the *workspace.mel* is there, it is going to set up your project and closes the window. But if you point it out to the wrong folder that does not contain *workspace.mel*, a message appears that looks like Figure 2-2.

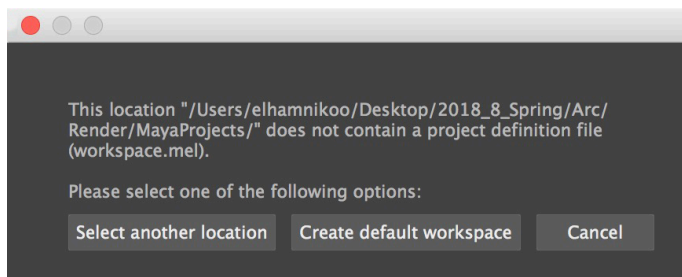


Figure 2-2. When *workspace.mel* is not located this window will appear.

Since you have already created a project, you're gonna chose *Select another location* option and point out Maya to the right folder. If you chose the *Create default workspace* option, Maya is gonna create the project folder in the location you just selected.

### Related Topics and Tutorials:

- Maya Documentation:  
["Set a Project in Maya" from knowledge.autodesk.com](https://knowledge.autodesk.com/help/set-a-project-in-maya)
- Maya Documentation:  
["Change Projects" from knowledge.autodesk.com](https://knowledge.autodesk.com/help/change-projects)
- 2-minute tutorial that shows how to create and set up a Maya Project:  
["Setting And Saving Projects inside of Maya" by Lucas Licata.](#)

### 3-Maintaining Maya Project Workflows

Once you created and set up a Maya Project, it is pretty easy to adhere to its structure. All the Maya scenes (such as *example\_project.ma* or *example\_project.mb*) may go into the *scene* folder, image textures could be saved in *sourceimage* folder and so on.

Maintaining Maya Project workflows is easy as long as you have these two things in mind:

- Everything should be saved under the project folder.

You may adhere to the default folder structure of Maya Project, or categorize your files in a different file structure. But remember that everything needs to be inside the Maya Project folder because now that you set a project, the paths start from the project folder.

- Move the files you want to connect to the scene to the right location inside Maya Project folder before connecting the files to the scene.

For example, if you want to assign an image texture to a shader, first put the image inside the project folder, then connect it to the shader so that the path is correct.

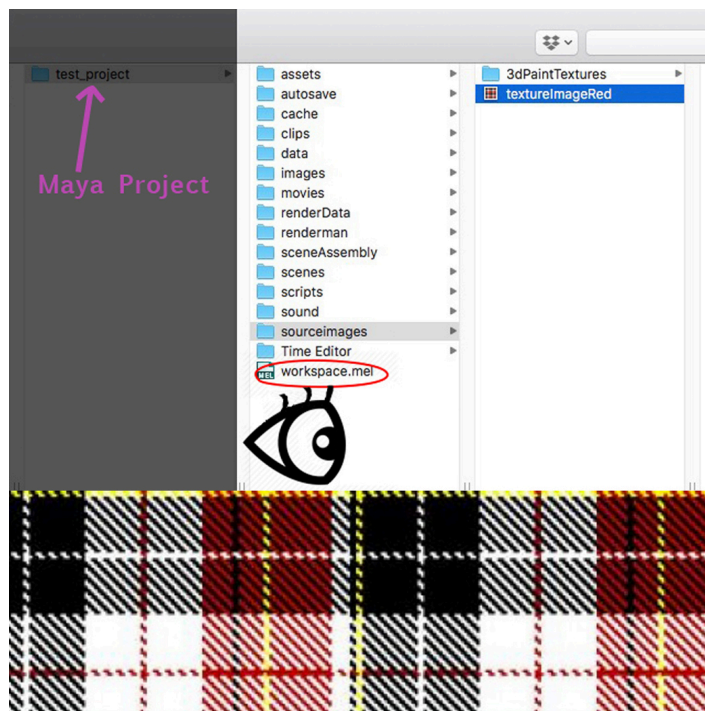


Figure 3-1. Every files should be saved under the Maya Project folder