

The following should help ensure your presentations play correctly once burned to CD.

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1 How to maximise the performance of Director movies

- 1.1 **Break up** your presentation into **manageable chunks** for Director to handle. **Several small** director movies are better than one
- 1.2 Keep your file sizes as **small** as possible
- 1.3 Use PhotoShop to reduce colour depth of an image, not Director (see **Compressing Images for Director**)
- 1.4 When animating, only change the part of the image that moves. Have separate cast members for that area
- 1.5 **Reuse** cast members wherever possible
- 1.6 Do not use images larger in size than the Stage, if the surplus area is never seen. **Crop** all images appropriately
- 1.7 **Delete** any unused cast members
- 1.8 When saving choose **Save and Compact** from the **File** menu
- 1.9 Use **Vector Shapes** from within Director to replace bitmaps, wherever possible
- 1.10 **Loop** sound wherever possible
- 1.11 **Compress** sound and video as much as is acceptable

2 How to ensure QuickTime movies play well

- 2.1 Free up memory using the **Unload** command. This removes cast members from memory and makes space for the next cast members in line
- 2.2 Make sure **Direct to Stage** is selected. Click on the cast member then go to the **QuickTime** tab on the **Property Inspector**.

2.3 Things to Avoid

The following use large amounts of memory or processing. They can interfere with video playback.

- Using lots of **transparency ink** effects, such as dissolves
- **Stretching large bitmap** images for a zoom type effect. (Sometimes these effects can be better achieved by using frame animation. Instead of Director having to calculate all the "in between" images, you supply them as separate cast members)
- Sprites larger than the stage
- Playing a sound file at the same time as playing QuickTime movies
- Stretching QuickTime movies in increments other than 100%.

3 How to ensure sound plays well

- 3.1 Try experimenting with Shockwave Audio or MP3 audio.
- 3.2 Use standard sampling rates (11.025, 22.050, 44.100).
- 3.3 Avoid playing too many sounds simultaneously.
- 3.4 Link long duration sounds as an external file (see 5.2.3).

4 How to prevent problems with fonts

If you use a font that is not present on the user's machine the user will get an error message. For anything but the most common web fonts you should embed the font within the Director movie. This is very easy to do.

Go: **Insert > Media Element > Font**

The resulting dialog box is more or less self-explanatory. If you are using small font sizes (below 9 pts) you may find the font displays better if it is imported as a bitmap. You can select bitmap fonts from the dialog box.

5 How to avoid problems with missing files

Many problems with the final presentation occur because Director cannot find the resources it needs. In such cases you will get an error message saying a much-needed file is missing.

5.1 QuickTime movies

These have to be located in the **same folder** as the **Projector**. This is because Director does not store the movie within itself. Instead, it makes a link to the movie and accesses it remotely. Director assumes that the movie is in the **same folder** as the **Projector**. For your QuickTime movie to play from your CD, the QuickTime movie must be in this folder.

You can also place QuickTime movies in a folder **within** the folder that contains the Projector. If, for example, you had 10 QuickTime movies, you could place these within a folder called "media". If you do this, make **absolutely sure** that the QuickTime movies are **within their own folder** at the **time of authoring**. This folder **must be inside** the folder **containing the Projector**. You can check the location of QuickTime movies by clicking on the cast member, in the **Cast**. The **Property Inspector** will then display the file path under the **Member** tab.

The non-display of QuickTime movies can be very frustrating. Double check your project to ensure everything is working as it should be **on a different computer**.

5.2 Sound Files

The first thing to say about any sound file is that it will be relatively large in file size. With this in mind, remember to reduce the file size as much as possible by looping the sound and by reducing its sample rate and / or bit depth.

Choose from 8- or 16-bit depth and a sampling rate of 44.1, 22.050, or 11.025 kHz.

5.2.1 Sound can be played from within Director or from a linked file. If you import a sound file in the normal way, it will be added to the cast and will be part of the Director movie itself. When this is called upon to play it will be loaded into memory first. For short duration sounds, such as beeps or clicks, this works fine. However, longer duration sounds, such as extended narration, may take up too much memory and adversely affect performance. For longer duration sounds, linked files generally work better.

5.2.2 To make a sound file **internal**, import in the normal way.

5.2.3 To make a sound file **external** (linked), import in the normal way, except, choose **Link to External File** from within the **Import** window.

QuickTime, Shockwave Audio, MP3, AIFF, and WAV sounds files can be linked in this way.

Remember: external sound files have to be located in the **same folder** as the **Projector**.

You can also place sound files in a folder **within** the folder that contains the Projector. If you do this, make **absolutely sure** that the sound files are **within their own folder** at the **time of authoring**. This folder **must be inside** the folder **containing the Projector**. You can check the location of sound files by clicking on the cast member, in the **Cast**. The **Property Inspector** will then display the file path under the **Member** tab.

6 How to ensure file paths are correct when writing Lingo

If you are using Lingo to open a new movie or to specify a file path, here are some guidelines:

- 6.1 Always use relative path names when writing Lingo. For example, if you wrote a script to play a new movie, it might look something like this:

```
on mouseUp me  
  
go to movie "newMovie"  
  
end
```

"newMovie" is a relative path name. Providing "newMovie" was in the same folder as the Projector, the script would work perfectly well.

- 6.2 However, if "newMovie" was in a folder called "media", which was in the same folder as the Projector, the file path would be incorrect. It would have to be amended as follows:

```
on mouseUp me  
  
go to movie "media:newMovie"  
  
end
```

Note: in between "media" and "newMovie" there is a colon. Macs use colons to separate elements in a file path, not forward slashes.

- 6.3 Whilst the above script should work, if we wanted to make sure the file path was correct, we could add a further item to specify the file path. This is a Lingo property called **the moviePath**. This returns the directory of the current movie. We could use this to further amend the script:

```
on mouseUp me  
  
go to movie the moviePath & "media:newMovie"  
  
end
```

the moviePath gives the file path to the folder containing the movie that is playing while **"media:newMovie"** gives the file path from that folder to the file itself. The **&** simply joins the two. The object of doing this is to ensure that whatever Mac this script is run on, the file path to "newMovie" will always be correct.

7 Sound conflicts

In certain cases sound files can cause problems. It may be that in trying to play a sound, Director hesitates momentarily or there are glitches.

One reason may be that you have an externally linked sound file playing at the same time as other memory intensive operations taking place, a QuickTime movie playing for example. This sort of problem is caused by Director trying to access data from two locations at once. One solution may be to make the sound file internal. Unfortunately, if the sound file is large, this may cause further problems. Clearly, in such cases, there are

no easy answers. To minimise the chances of this kind of thing happening, try to ensure your movies are not more complicated than they need to be.

8 Organising your material for CD

Your Director presentation is likely to play better if it is broken down into smaller units. The less work the Projector has to do in terms of loading content into memory the better. Therefore, aim to structure your presentation using many small movies, rather than one large movie.

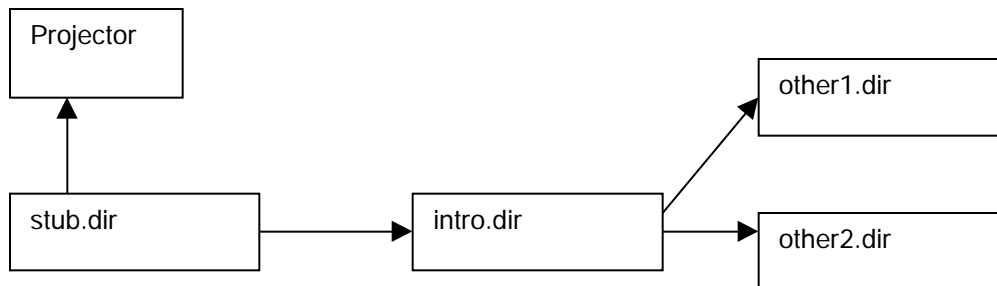
Remember: the final CD **MUST** contain the Projector, all Director movies, any Xtras needed and all linked media.

9 Improving how quickly your movie loads

9.1.1 Stub Movies

When you create a Projector, the Projector contains the first movie in your presentation. This could be very large indeed or very small. If you have only one movie, which is very large, there will be an unacceptable delay before it plays. This is because everything in that movie has to load into memory before anything happens.

To avoid this problem it is advisable to use a **Stub Movie**. A stub movie, in its simplest form, contains a script on the first frame that opens the first movie proper. This ensures that the Projector loads rapidly. Employing this technique will dramatically improve the startup time of your presentation.



Script

```
on exitFrame me  
  
go to movie "intro"  
  
end
```

If you make a stub movie you will have to add some Xtras to a special folder. See below for instructions.

9.2 Xtras

An Xtra is a piece of software used to extend Director's capabilities. By default they are embedded in the Projector. Whilst this makes for reliable delivery, it can slow down the

startup of your presentation. The best method is to save them in a folder. Both methods are explained below however.

9.2.1 Embedding Xtras in the Projector

By default Director assumes the Projector is where you want any Xtras to go. If you only have one movie there is no problem – Director will have done the work for you. If you have several movies though you will have to make sure all the Xtras for all the movies are embedded in the Projector. To do this go:

Modify > Movie > Xtras

This brings up a list of all the Xtras used in the current movie. Make a note of the Xtras required. Then do the same for each movie in the presentation. You should end up with a list of all the Xtras required. Now go back to the movie that will be the first in your presentation (probably the stub movie). Go:

Modify > Movie > Xtras

Use the **Add** button to add any Xtras not already loaded.

9.2.3 Saving Xtras in a Special Folder

Embedding Xtras in the Projector is a reliable method. However, it will cause a delay in the time it takes for your presentation to display. If you save your Xtras in a special folder, Director can access them directly. Startup times are thereby reduced.

Each movie you create will require several Xtras. If your movie contains QuickTime, for example, an Xtra is required. The first task therefore is to find out what Xtras are needed.

Go: **Modify > Movie > Xtras**

This will bring up a list of all the Xtras needed for that particular movie. Some of these may not be required for the final presentation however. This is because some Xtras are only needed for authoring. You can check this by using the **Info** button.

Make a list of all the Xtras you require. If you have created several movies, you will need to check each of them as well to ensure **all necessary** Xtras have been located. Before you go to a different movie though, carry out the next step.

9.2.4 By default, Xtras are embedded in the Projector. You need to make sure this does not happen if you want to use this technique. Director needs to access the Xtras from a special folder you will create. They must not be embedded in the Projector.

With the list of Xtras still open, select the first Xtra in the list. You will see a checkbox labelled: **Include in Projector**. By default this option is selected. Deselect each Xtra in turn.

9.2.5 You should now have a list of all the Xtras needed to make your presentation work and you should have prevented all your Director movies from embedding Xtras in the Projector. The next thing to do is create a folder to contain your Xtras.

This **MUST** be a folder called "Xtras". It **MUST** be located at the same level as your Projector.

- 9.2.6 Finally, you need to **copy** the required Xtras from the Director folder on the HD to the Xtras folder you have created for the project.

Go: HD > Applications > Director 8.5 > Xtras

Important Make sure you **copy** the Xtras across, **not move** them. (To copy, hold down the **Alt** key and **drag**)

10 How to avoid white flashes between movies (from Macromedia Tech. Notes)

Issue: As a projector navigates between movies, a white flicker is visible. This occurs only when playing the piece on a Macintosh.

Solution

Try both methods listed below to eliminate or reduce the occurrence of a flicker:

- 10.1 If adjacent movies use different color palettes, the screen can flicker as a result of the color shift and cause this symptom. To resolve this issue, make sure that all movies in a project use the same palette.
- 10.2 Verify that the option "Reset monitor to match movie's color depth" is NOT selected when creating the projector. This is only pertinent when creating Macintosh projectors.

Note: A slight white flicker will occur as a projector starts on a Macintosh. This is the normal behavior of a projector initializing.

11 Final checklist

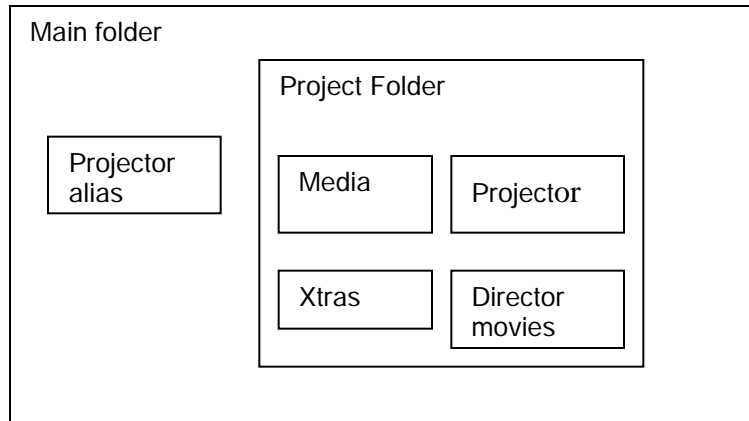
Before you burn your CD

- Ensure that you have saved your Director movie files in the same folder as the Projector
- Ensure that all Xtras needed are saved in a folder called Xtras in the same folder that contains your Projector **OR** You have embedded them within the Projector of the first movie
- Ensure all linked media is saved within the folder that contains the Projector
- Ensure all QuickTime movies are saved within the folder that contains the Projector
- You have included any **Read me** files needed
- You have thoroughly tested every aspect of your presentation, preferably on a different computer
- You have included a Quit button somewhere in your presentation

12 Burning Your CD

- 12.1 Copy your folder containing the Projector, Director movies, linked media Xtras and so on to the Temporary Work Folder
- 12.2 If you want to create a shortcut to your Projector, do the following:
- Create a folder to contain your whole project. This will be your main folder. Name this appropriately (the name of your project, for example)

- Copy your project folder to the folder you have just created. Name this appropriately (Project Media, for example)
- Create an alias from the Projector (**Command + Alt Drag** on the **Projector** icon). Put this inside the main folder. The main folder should now contain the alias and the Project Media folder, containing your entire project. Because the project has not been disturbed and is still inside its original folder, there should be no problems with file paths. However, when you burn the CD, you will need to select **Resolve Aliases** (see next section)



- 12.3 Open **Toast** from **Utilities**
- 12.4 Select **Files and Folders** from the **Toast** main window.
- 12.4 Drag the **Project Folder** or the folder containing the **Project Folder**, if you have created an alias, to the centre of the **Toast** main window. It will update automatically.
- 12.5 Click on the **Data** button. Check your files and folders are in order. If you have created an alias, select **Resolve Aliases**. Click on **Done** to take you back.
- 12.6 Click on **Check Speed**. **Toast** will then calculate the optimum speed for burning your CD. Click on **Done**.
- 12.7 Click on **Write**. You can choose either to write a **session** or a **disc**. Writing a session enables you burn several times, useful if you are problem solving. Writing a disc is a once only action. You should use this option to burn your final CD for handing-in. When prompted, **verify** your CD to make certain there are no errors.
- 12.8 **Double check** your whole project works, preferably on a different computer.