CINEMASUITE

USER DOCUMENTATION FOR CINEMA DIRECTOR

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Introduction

Thank you for purchasing Cinema Director! Our team makes software extensions for Unity that allow game developers, machinima gurus, animators and film professionals to create and control content for their projects quickly, and easily. More importantly, we want our users to have fun doing it.

Being avid fans of video games, as well as the movie industry, we set out on a common goal – to create a set of cinematic game and film tools, which are powerful, affordable and available to the masses, through the Unity3D asset store.

Cinema Director is the main module of our set of tools called "Cinema Suite". Cinema Suite is a collection of software extensions for Unity3D that will allow developers to create content without the need for scripting or programming.

It's time to take control of Unity3D and tell your story.

Cinema Director is a powerful timeline editing tool, 100% integrated inside the Unity3D game engine. Director allows the user to control almost any aspect of Unity in time, from particle effects and lights, to camera shots, to object placement and visibility. Think of it as a full in-game sequencing tool, or robust cutscene creation tool for unity. Now anyone with minimal knowledge of Unity3D and programming, can create complex scenes inside their Unity3D project.

Please remember, making great products is only possible if we have feedback from people like you, and our community. Feedback is critical to our success and we welcome it in all forms, be it Facebook, Twitter, Email or our Forums. Please check out ways that you can directly communicate with us, at the end of this document.

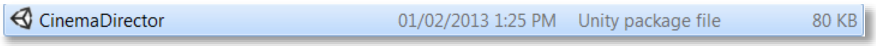
Thank you for helping us make Cinema Director great!

The Cinema Suite Team

Cinema Director Overview

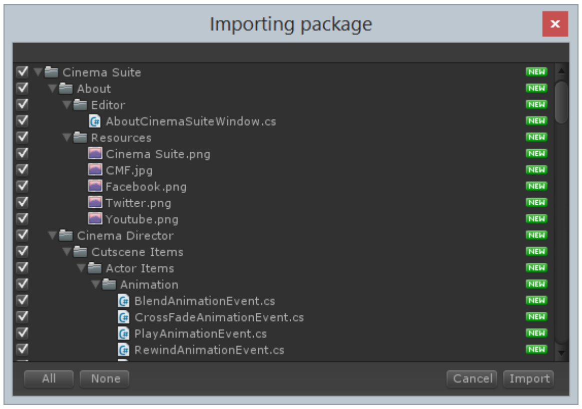
Installing Cinema Director

Cinema Director is a standard Unity3D Software Extension, and installs like any other Unity3D package. The name of the file we have created is called "CinemaDirector.unitypackage"



CinemaDirector 01/02/2013 1:25 PM Unity package file 80 KB

In order to load the Cinema Director Unity3D package you either drag the Unity package into your current Unity3D project, or in Unity3D go to the dropdown menu: **Assets > Import Package… > Custom Package…** then browse to the CinemaDirector.unitypackage file. The Unity Asset Store Download Manager will automate this process.


Importing package
NEW
All
None
Cancel
Import

```
Cinema Suite
  About
    Editor
      AboutCinemaSuiteWindow.cs
    Resources
      Cinema Suite.png
      CMF.jpg
      Facebook.png
      Twitter.png
      Youtube.png
  Cinema Director
    Cutscene Items
      Actor Items
        Animation
          BlendAnimationEvent.cs
          CrossFadeAnimationEvent.cs
          PlayAnimationEvent.cs
          RewindAnimationEvent.cs
```

Figure 1: Import Package Window

Once the Importing package dialogue appears, click the Import button. After approximately ten seconds, you will see a new drop down menu (Cinema Suite) under the window pulldown.

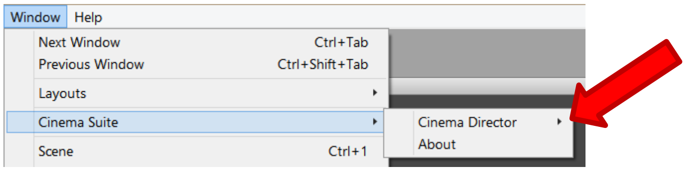

Window
Help
Next Window Ctrl+Tab
Previous Window Ctrl+Shift+Tab
Layouts
Cinema Suite
Scene Ctrl+1
Cinema Director
About

Figure 2: Cinema Suite Menu

Once installed, Cinema Director will appear in a folder, inside your Unity project.

Key Features

- Sequence Unity objects and environment quickly and easily with no programming or scripting.
- Access all the properties of your Unity3D game objects, and control their variables over time.
- Set your cutscene to play in game. Sequence will play at beginning of selected Unity3D scenes, or at a trigger within a scene of your choice.
- Preview or scrub through your sequence in edit mode with live time scrubbing tools, and make changes in real time. Includes Mecanim animation preview!

Learning the Basics

We have created a sample project that installs with Cinema Director called **Director Basics.** Open the Director Basics scene located in the **Cinema Suite > Cinema Director > Example Scenes Folder**. Once loaded, hit the play button in Unity and let Director Bot tell you all about the features of Cinema Director!

Creating a new cutscene

From the newly installed Cinema Suite drop down menu, you will be able to open the Director Window or create a new cutscene. Before the Director Window can be enabled, you must select create a new cutscene by selecting **Window > Cinema Suite > Cinema Director > Create Cutscene.** If you select **Window > Cinema Suite > Cinema Director > Director**, the Director window will open and it will be empty. If you chose to open the Director Window first, select the "**Create**" Pulldown at the left side of the window to create a new cutscene.

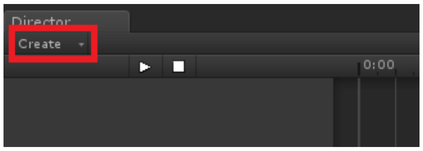
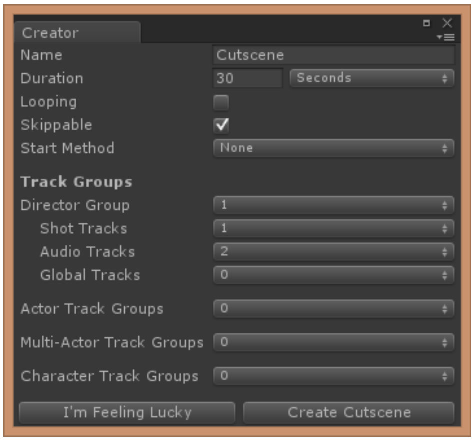


Figure 3: Create Button

Create Cutscene Window

The create cutscene window will open. Here you can name your cutscene, select a duration of the cutscene in seconds or minutes, and select the number of track groups you would like to begin working with. We've also added a special **I'm Feeling Lucky** button, which adds a bit of Artificial Intelligence to Cinema Director. We will get into more detail on what the "I'm Feeling Lucky" button as well as tracks do later in the documentation.

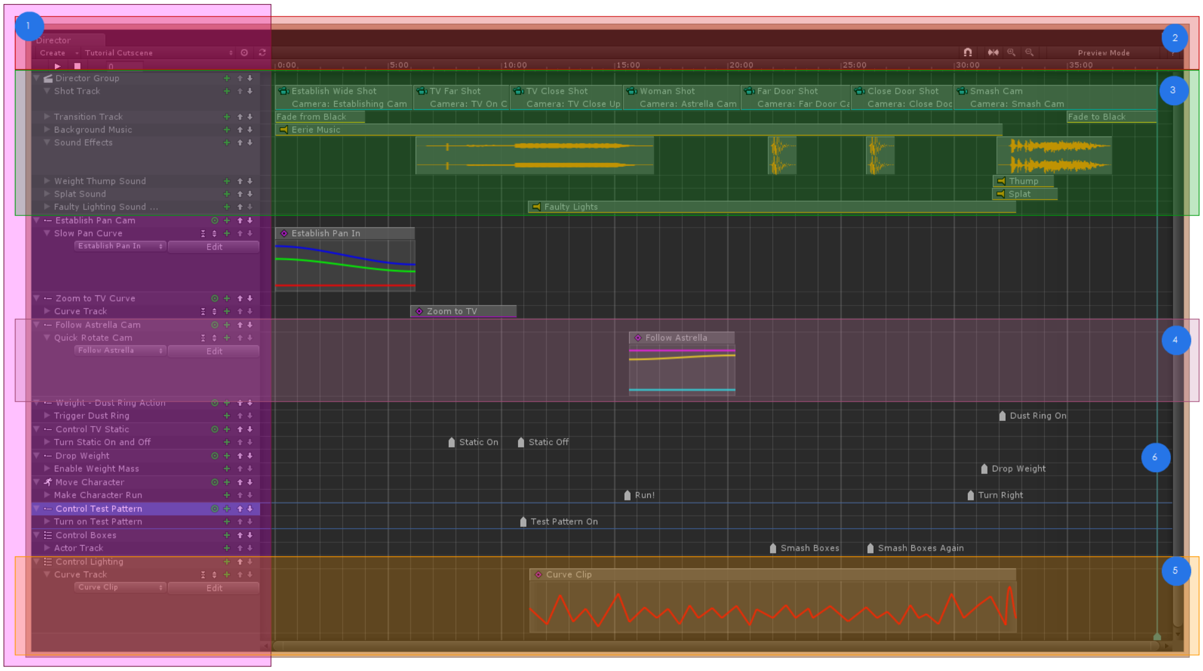


Name: Cutscene
Duration: 30 Seconds
Looping: ☐
Skippable: ☑
Start Method: None

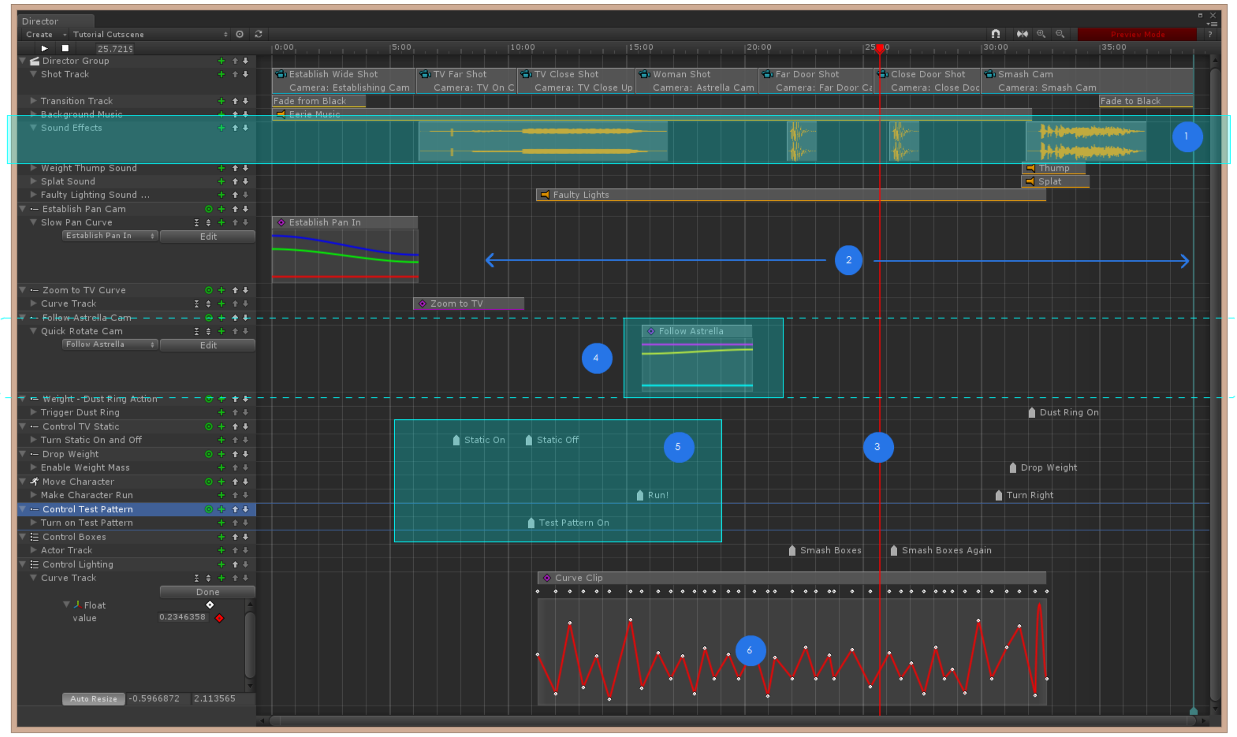
Track Groups
Director Group: 1
  Shot Tracks: 1
  Audio Tracks: 2
  Global Tracks: 0
Actor Track Groups: 0
Multi-Actor Track Groups: 0
Character Track Groups: 0

Figure 4: Create Cutscene Window

Interface Overview


1
2
3
4
5
6
Director
Create
Tutorial Cutscene
Preview Mode
Director Group
Shot Track
Transition Track
Background Music
Sound Effects
Weight Thump Sound
Splat Sound
Faulty Lighting Sound ...
Establish Pan Cam
Slow Pan Curve
Zoom to TV Curve
Curve Track
Follow Astrella Cam
Quick Rotate Cam
Weight - Dust Ring Action
Trigger Dust Ring
Control TV Static
Turn Static On and Off
Drop Weight
Enable Weight Mass
Move Character
Make Character Run
Control Test Pattern
Turn on Test Pattern
Control Boxes
Actor Track
Control Lighting
Curve Track
Edit
Establish Wide Shot
Camera: Establishing Cam
TV Far Shot
Camera: TV On C
TV Close Shot
Camera: TV Close Up
Woman Shot
Camera: Astrella Cam
Far Door Shot
Close Door Shot
Smash Cam
Camera: Smash Cam
Fade from Black
Fade to Black
Eerie Music
Thump
Splat
Faulty Lights
Establish Pan In
Zoom to TV
Follow Astrella
Dust Ring On
Static On
Static Off
Drop Weight
Run!
Turn Right
Test Pattern On
Smash Boxes
Smash Boxes Again
Curve Clip

1. Canvas (Creation Area)
2. Toolbar
3. Director Group
4. Actor Group
5. Multi-Actor Group
6. Cutscene Duration Marker


1
2
3
4
5
6
Director
Create
Tutorial Cutscene
Preview Mode
25.7215
Director Group
Shot Track
Transition Track
Background Music
Sound Effects
Weight Thump Sound
Splat Sound
Faulty Lighting Sound ...
Establish Pan Cam
Slow Pan Curve
Zoom to TV Curve
Curve Track
Follow Astrella Cam
Quick Rotate Cam
Weight - Dust Ring Action
Trigger Dust Ring
Control TV Static
Turn Static On and Off
Drop Weight
Enable Weight Mass
Move Character
Make Character Run
Control Test Pattern
Turn on Test Pattern
Control Boxes
Actor Track
Control Lighting
Curve Track
Done
Float
value
0.2346358
Auto Resize
-0.5966872
2.113565
Edit
Establish Wide Shot
Camera: Establishing Cam
TV Far Shot
TV Close Shot
Woman Shot
Far Door Shot
Close Door Shot
Smash Cam
Fade from Black
Fade to Black
Eerie Music
Thump
Splat
Faulty Lights
Establish Pan In
Zoom to TV
Follow Astrella
Dust Ring On
Static On
Static Off
Drop Weight
Run!
Turn Right
Test Pattern On
Smash Boxes
Smash Boxes Again
Curve Clip

1. Director Track
2. Timeline Area
3. Time Scrubbing Tool
4. Curve Track with Curve Clip
5. Track Events
6. Curves and Keyframes

Cinema Director is a software extension for Unity3D. As with any Unity window, you can position the application any way you wish. Cinema Director shines when it can utilize more screen real estate. Because of this, we always recommend 2 monitors for use in Unity3D to enhance productivity. Let's discuss each area of the Cinema Director interface in a bit more detail:

Canvas (Creation Area)

The Canvas is the user's creation and organizational area, and holds all items that are used for sequencing in Cinema Director. The Canvas runs down the entire left side of the Director window. When creating a sequence, the Canvas will be populated with Containers. There are four main types of Containers, which are known as groups and represented by these icons:

🎬 - **Director Group**
•— - **Actor Track Group**
☰ - **MultiActor Track Group**.
🏃 - **Character Track Group**

These groups can hold the following information:

- Global Tracks (Which include shot tracks, audio tracks and other global type tracks)
- Actor Tracks
- Curve Tracks and keyframes

The Canvas also holds additional information:

↑ ↓ - Re-order group
+ - Add Track
◎ - Add Actor Object
⇕ - Increase Curve Track Size
⌶ - Decrease Curve Track Size

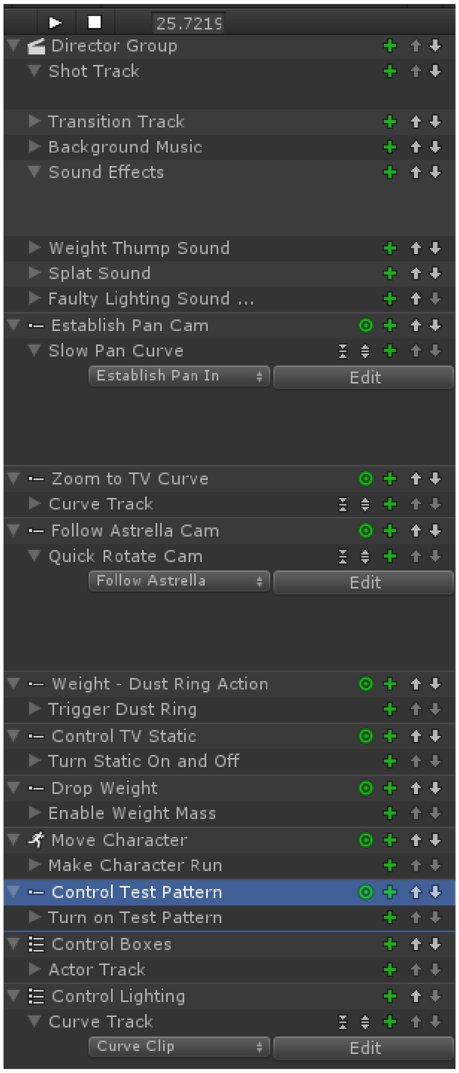

25.7219
Director Group
Shot Track
Transition Track
Background Music
Sound Effects
Weight Thump Sound
Splat Sound
Faulty Lighting Sound ...
Establish Pan Cam
Slow Pan Curve
Establish Pan In
Edit
Zoom to TV Curve
Curve Track
Follow Astrella Cam
Quick Rotate Cam
Follow Astrella
Edit
Weight - Dust Ring Action
Trigger Dust Ring
Control TV Static
Turn Static On and Off
Drop Weight
Enable Weight Mass
Move Character
Make Character Run
Control Test Pattern
Turn on Test Pattern
Control Boxes
Actor Track
Control Lighting
Curve Track
Curve Clip
Edit

Figure 5: Canvas Area

Toolbar

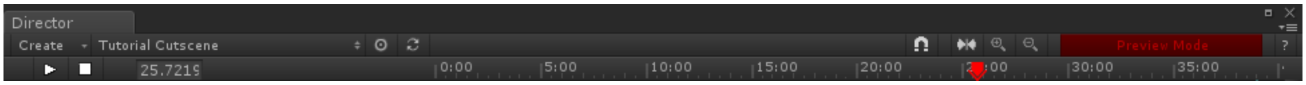

Director
Create
Tutorial Cutscene
25.7219
0:00
5:00
10:00
15:00
20:00
25:00
30:00
35:00
Preview Mode
?

Figure 6: Cinema Director Toolbar

The top of the director window houses the Toolbar. There are two areas within the toolbar. The ***create*** pulldown on the left side of the toolbar allows the user to create a new sequence (cutscene) and to add **Groups**. The play and stop button on the left side of the toolbar will start or stop the cutscene in preview mode. The remaining right area of the toolbar houses the time marker. The time maker shows the length of the sequence, and acts as a reference or guide to determine how many seconds a track is active for. Clicking anywhere on the time marker will jump the time scrubbing tool to that exact point in time and enable Preview Mode. Preview mode is enabled when the Preview Mode button on the right side of the toolbar glows red. Functions of the toolbar are as follows:

Create ▾ - Create a new cutscene, and Add groups (Director, Actor, MultiActor)
◎ - Target Cutscene Object in Inspector
↻ - Refresh Timeline Editor
⇕ - Toggle between multiple cutscenes
▶ ■ - Start and Stop cutscene in preview mode.
∩ - Enable/Disable Snap to Grid
▸◂ - Fit cutscene to window
🔍+ - Zoom timeline in
🔍- - Zoom timeline out
Preview Mode - Enable/Disable Preview Mode
0:00 5:00 10:00 - Time Ruler

Director Group

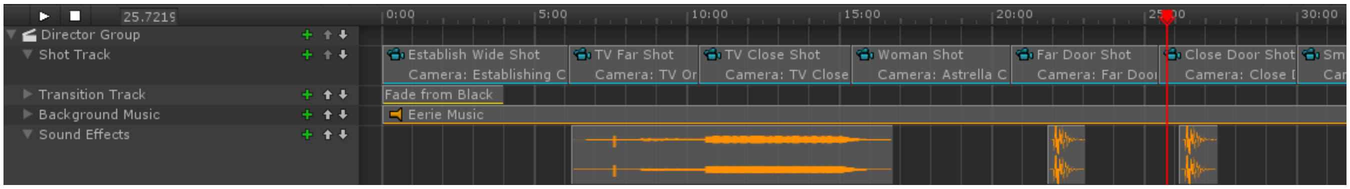
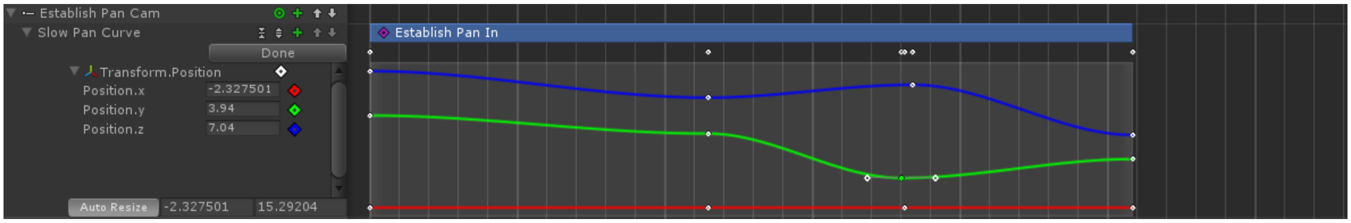

25.7219
0:00
5:00
10:00
15:00
20:00
25:00
30:00
Director Group
Shot Track
Transition Track
Background Music
Sound Effects
Establish Wide Shot
Camera: Establishing C
TV Far Shot
Camera: TV Or
TV Close Shot
Camera: TV Close
Woman Shot
Camera: Astrella C
Far Door Shot
Camera: Far Door
Close Door Shot
Camera: Close D
Sm
Car
Fade from Black
Eerie Music

Figure 7: Director Group

The **Director Group** is represented by the 🎬 icon and allows you to add tracks that will globally affect your cutscene. You can add shot tracks, that allow you to sequence a set of shots (or camera cuts) based on when they are to be displayed in time. You can add audio tracks that allow you to add multiple audio clips to your cutscene. Finally, you can add a variety of global tracks that allow you to add many different options such as transitions, time warping, storyboarding, and other utilities we will discuss later.

Actor Track Group


Establish Pan Cam
Slow Pan Curve
Done
Transform.Position
Auto Resize
-2.327501
15.29204
Establish Pan In

Position.x -2.327501
Position.y 3.94
Position.z 7.04

Figure 8: Actor Track Group

The **Actor Track Group** is represented by the •– icon and is used when you want Cinema Director to control individual Unity Objects. An Actor Track Group can hold either an **Actor Track**, or a **Curve Track** (shown above in Figure 8). Curve tracks can modify an object's associated properties over time, and Actor Tracks can apply events to a Unity Object at certain points in time within your cutscene. We will discuss the behaviour of curve tracks and all event options available for Actor Tracks later in the documentation.

MultiActor Track Group

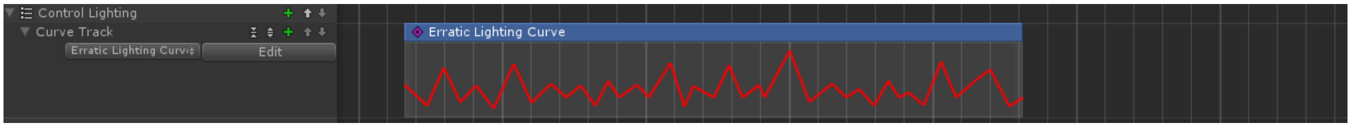

Control Lighting
Curve Track
Erratic Lighting Curve
Edit
Erratic Lighting Curve

Figure 9: MultiActor Track Group

MultiActor Tracks are represented by the ☰ icon and allow you to control multiple objects in Unity at one time. For example, if you have many lights in a scene, you can control all of their intensity at one time instead of having to make an individual actor track for every object. Similar to Actor Track Groups, MultiActor Track Groups can hold Curve Tracks and Actor Tracks. Curve tracks will dynamically control a common property of all objects selected over time, and an Actor Track will allow you to apply events to the full group of objects.

Character Track Group

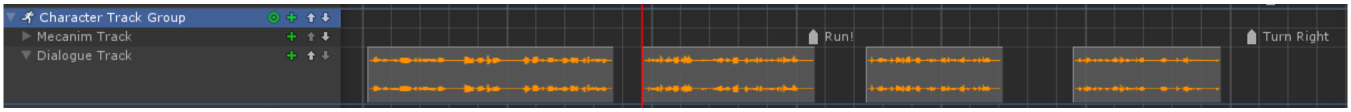


Figure 10: Character Track Group

Character Track Groups are represented by the icon and allow you to take control of humanoid characters inside your Unity Project. The characters must be Mecanim rigged and compatible. The Character Track group holds two types of tracks – Mecanim tracks and dialogue tracks. Dialogue tracks allow you to quickly apply 3D audio to your character for dialogue sequences, and Mecanim tracks allow you to apply Unity Animator commands directly to your character.

Cutscene Duration

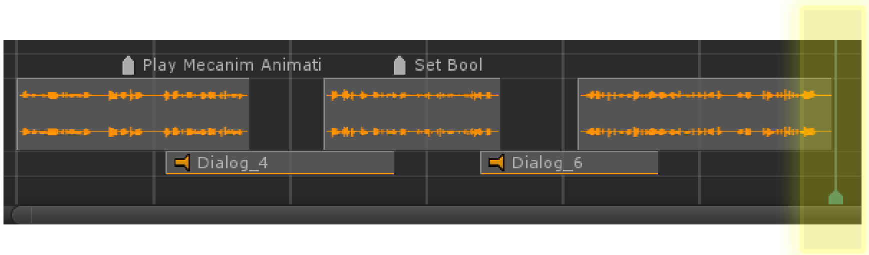


Figure 11: Cutscene Duration Marker Highlighted

The duration of your cutscene is represented by a vertical, cyan coloured line at the end of your Cinema Director project. This line will appear at the time that the initial cutscene has been set to when creating the project. Clicking on the **Cutscene Duration Marker**, and dragging will adjust the total duration of your cutscene in seconds.

Timeline Area

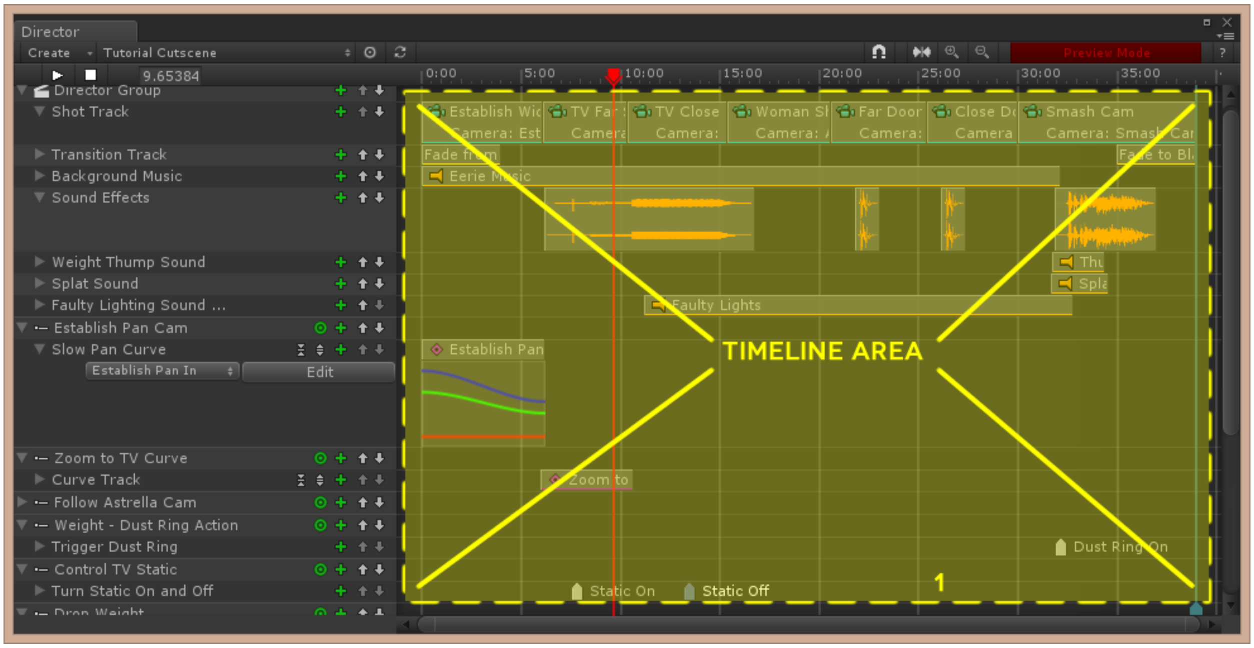

Director
Create
Tutorial Cutscene
Preview Mode
9.65384
0:00
5:00
10:00
15:00
20:00
25:00
30:00
35:00
Director Group
Shot Track
Transition Track
Background Music
Sound Effects
Weight Thump Sound
Splat Sound
Faulty Lighting Sound ...
Establish Pan Cam
Slow Pan Curve
Establish Pan In
Edit
Zoom to TV Curve
Curve Track
Follow Astrella Cam
Weight - Dust Ring Action
Trigger Dust Ring
Control TV Static
Turn Static On and Off
Drop Weight
Establish Wic
Camera: Est
TV Fa
Camera
TV Close
Camera:
Woman Sl
Camera:
Far Door
Camera:
Close Do
Camera
Smash Cam
Camera: Smash Car
Fade from
Fade to Bl
Eerie Music
Thu
Spla
Faulty Lights
Establish Pan
Zoom to
Dust Ring On
Static On
Static Off
TIMELINE AREA
1

Figure 12: A view of the timeline area in Cinema Director

The timeline holds all information that is inputted into Cinema Director. It is a vertical grid, broken into 5 second intervals. The time scrubbing tool runs vertically along the entire length of the timeline. Resizing the Director window will increase and decrease the timeline scale. Hitting the ⧓ button will automatically scale the timeline to fix the Director window, according to the Cutscene Duration Marker. Clicking the 🔍 and 🔍 buttons will increase and decrease the timeline scale accordingly. Selecting the ∩ button will allow you to snap Track items to the timeline grid that is currently displayed. As you zoom in, more gridlines will be displayed to snap to than if you zoom out.

Time Scrubbing Tool

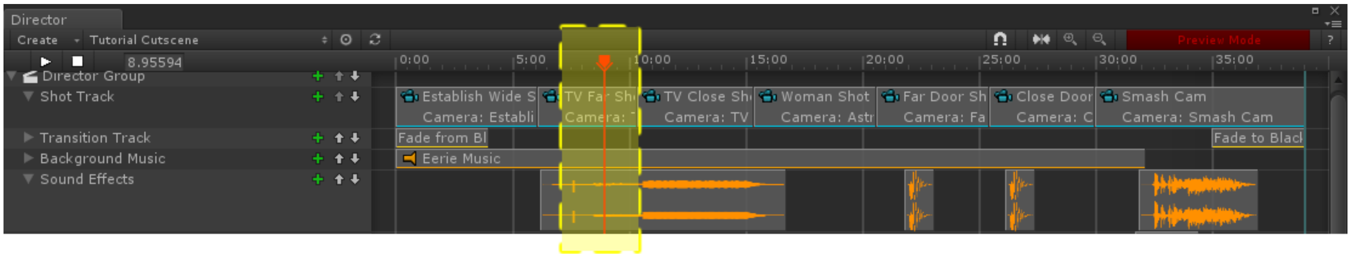

Director
Create
Tutorial Cutscene
Preview Mode
8.95594
0:00
5:00
10:00
15:00
20:00
25:00
30:00
35:00
Director Group
Shot Track
Transition Track
Background Music
Sound Effects
Establish Wide S
Camera: Establi
TV Fa Sh
Camera:
TV Close Sh
Camera: TV
Woman Shot
Camera: Astr
Far Door Sh
Camera: Fa
Close Door
Camera: C
Smash Cam
Camera: Smash Cam
Fade from Bl
Fade to Blacl
Eerie Music

Figure 13: Time scrubbing tool highlighted

Cinema Director is a dynamic software extension, which allows the user to preview what they are working on in real-time, either in the Unity Scene window or Game window. The Time Scrubbing tool gives the user this control. Clicking on the red **Time Scubbing Marker**, and holding the mouse button while dragging, will move the Time Scrubbing Tool across the timeline. The Game window will show the sequence live as you scrub. Clicking any spot on the timeline header will immediately jump the time scrubbing tool to that point in time. Hitting the spacebar key will toggle the time scrubbing tool to play and stop, similar to other popular video editing programs. When you click on the timeline header or scrub the Time Scrubbing tool, notice that the Preview Mode button will activate. To exit preview mode, press the stop button ■ or hit the red preview mode button.

Curve Tracks

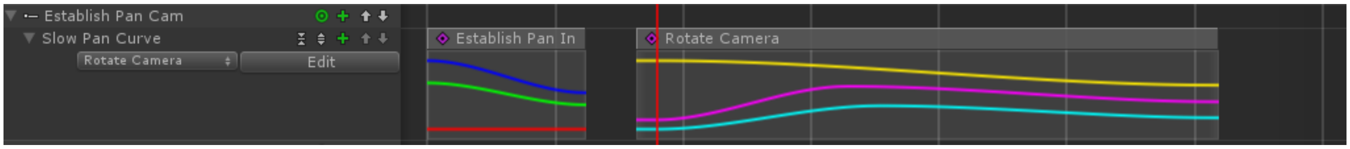

Establish Pan Cam
Slow Pan Curve
Rotate Camera
Edit
Establish Pan In
Rotate Camera

Figure 14: Curve Track showing multiple Curve Clips

After creating an Actor Track Group or MultiActor Track Group, Cinema Director provides the option to create a Curve Track. Curve tracks will look at all available properties for the Unity Object that has been applied to the Actor or MultiActor Track Group, and allow **curve clips** to be created based on one of these properties. The curve editor will then control the selected property dynamically over time. Depending on the property selected, you will either be able to edit a single curve, or edit multiple curves representing the X, Y, Z axis of an object if you are tracking transformation values. The example above shows two curve clips – one set to track position transform and one set to track rotation transform.

Actor Tracks:

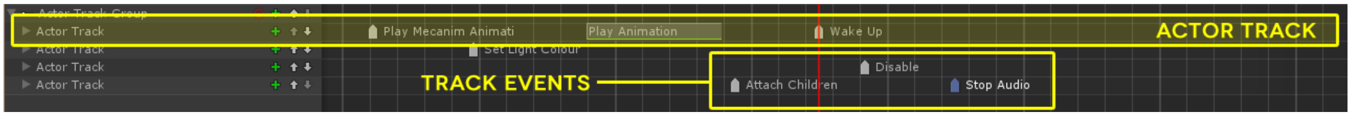
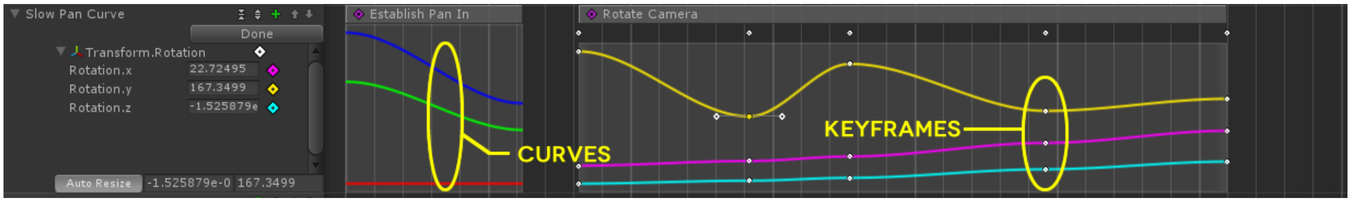

Actor Track Group
Actor Track
Actor Track
Actor Track
Actor Track
Play Mecanim Animati
Play Animation
Wake Up
ACTOR TRACK
Set Light Colour
Disable
TRACK EVENTS
Attach Children
Stop Audio

Figure 15: Example of Multiple Events in Actor Tracks

Actor tracks hold **track events** (shown above in **Figure 15**) that can be applied to a Unity Object that has been assigned to an Actor or MultiActor Track Group. These events are then triggered at the exact moment in time that they are applied to on the Timeline. Cinema Director has an extensive events library, which allows you to apply events such as triggering animations, audio, enabling and disabling game objects, applying physics and more.

Curves and Keyframes



Rotation.x 22.72495
Rotation.y 167.3499
Rotation.z -1.525879e

-1.525879e-0 167.3499

Figure 16: Actor Track Group showing Curve Track

When a curve track is expanded in a Director Group, Actor Track Group or MultiActor Track Group, curves will display. These curves represent how the associated Unity Game Object is being tracked in Cinema Director. Manipulating the Game Object inside of the Unity Scene will automatically adjust the curves, and will be reflected in Cinema Director, as long as Cinema Director is in **Preview Mode**. Preview Mode Keyframes will automatically be generated as well, at the exact point the time scrubbing tool is located when the GameObject is manipulated in the Unity Scene. The user can also manually manipulate curves and keyframes inside the curve track, in the Director Window. This will be covered later in this documentation.

Using Cinema Director

Tutorial - Creating and working with Cutscenes

We will be using Unity's Robot Labs Project for the purpose of this tutorial. To follow along, download the project from the Unity Asset Store (it's free) and open the RobotLab scene.

Opening the Create Cutscene Window

From the newly installed Cinema Suite menu under Window, you will be able to open the Director Window or Create Cutscene. You can use **Ctrl+Shift+D** as a shortcut to open the Director Window as well.

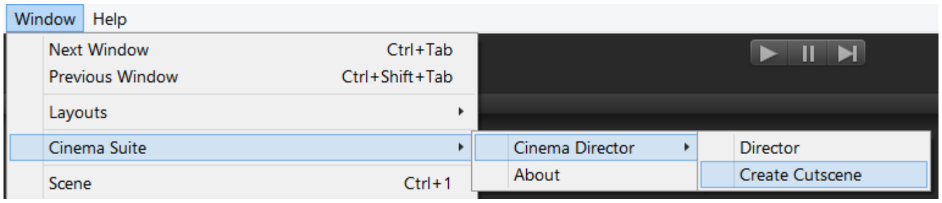
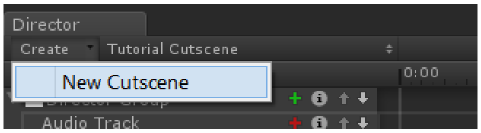

Window
Help
Next Window Ctrl+Tab
Previous Window Ctrl+Shift+Tab
Layouts
Cinema Suite
Scene Ctrl+1
Cinema Director
About
Director
Create Cutscene

Figure 17: Cinema Director Menu

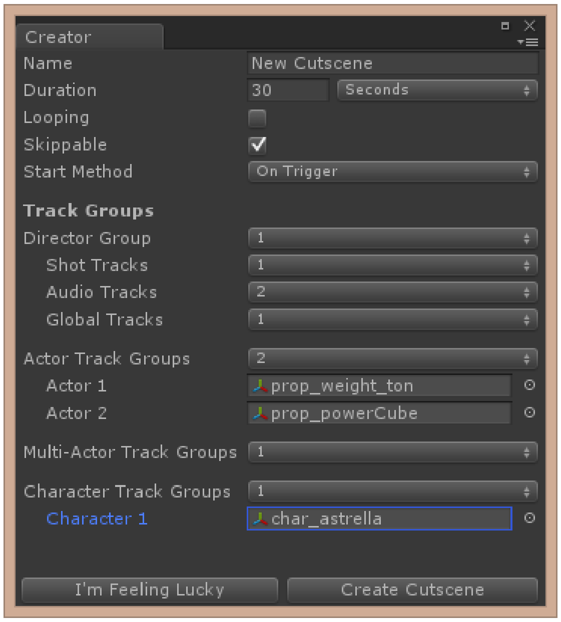
If you already have your Director Window open, you can also open the Create Cutscene Window by pressing the Create pulldown inside the Director Window and choosing "New Cutscene".


Director
Create
Tutorial Cutscene
New Cutscene
0:00
Audio Track

Creating a new Cutscene

When you select Create Cutscene from the Unity menu, the Create Cutscene window will open. This window will display many options to get started as efficiently as possible on your new project.

You can create a new cutscene using two options. First is manual configuration by adjusting the given values and selecting the **Create Cutscene** button. Second is by using the **I'm Feeling Lucky** button.


Creator

Name	New Cutscene
Duration	30 Seconds
Looping	☐
Skippable	☑
Start Method	On Trigger
Track Groups	
Director Group	1
Shot Tracks	1
Audio Tracks	2
Global Tracks	1
Actor Track Groups	2
Actor 1	prop_weight_ton
Actor 2	prop_powerCube
Multi-Actor Track Groups	1
Character Track Groups	1
Character 1	char_astrella

I'm Feeling Lucky
Create Cutscene

Figure 18: Create Cutscene Window

Manually creating a cutscene involves giving your cutscene a **name**. After it is named, select a **duration** for your cutscene. When selecting a duration you can select between seconds and minutes. After your cutscene duration is selected, you can then check if you would like to loop your cutscene (have it play over and over) by selecting the **looping** checkbox. If you would like your cutscene to end on either a gamepad movement or by a keyboard command, select the **skippable** option as well.

Creating Groups and Tracks

The **Track Groups** area allows Cinema Director to automatically generate the number of initial tracks you would like to use in your project. Since you can only have up to one **Director Group**, your options are one, or zero. Select if you would like an initial **Shot Track**, up to four initial **Audio Tracks**, and up to ten **Global Tracks.** You can also sign up to ten **Actor Track, MultiActor Track** or **Character Track Groups.**

The **Actor Track Groups** area allows you to select how many initial **Actor Track Groups** you would like in your scene. When you select a number between zero and ten, that amount of Actor Track fields will appear below the Actor Track Group area. Here, you can select what Unity Object you would like to set as an actor. Click the target button to the right of the field, and Unity will display all Unity Objects available in your current scene. For each field, select an object that you would like a new Actor Track Group created for and it will be created.

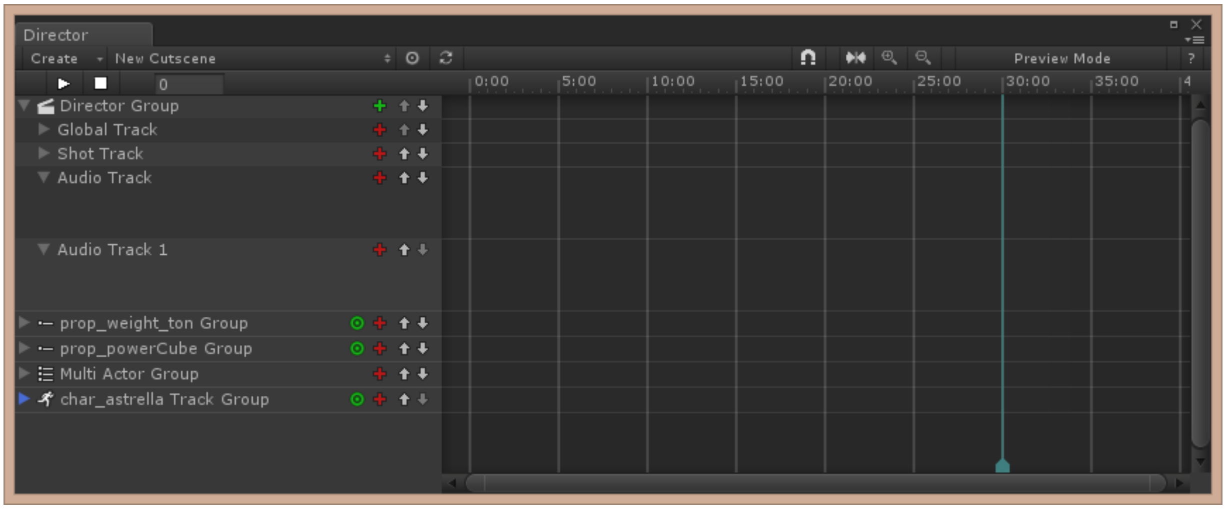

Director
Create
New Cutscene
Preview Mode
0
0:00
5:00
10:00
15:00
20:00
25:00
30:00
35:00
Director Group
Global Track
Shot Track
Audio Track
Audio Track 1
prop_weight_ton Group
prop_powerCube Group
Multi Actor Group
char_astrella Track Group

Figure 19: New Cutscene using Create Cutscene Settings

Selecting and Configuring a Start Method

Start Method allows you to select how you would like your cutscene to start. Selecting **On Start** will start the cutscene immediately when you enter Play Mode in Unity. Selecting **On Trigger** will start the cutscene when a Game Object in Unity of your choice hits an assigned box collider. This allows for in-game sequencing.

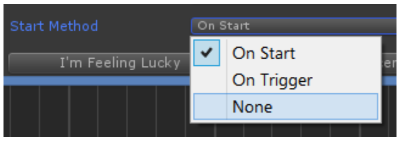
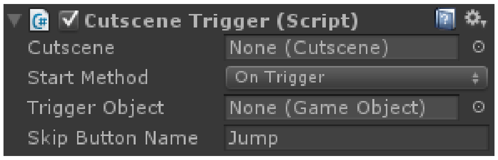

Start Method: On Start

Figure 20: Selecting a Start Method

Once your cutscene is created, a **Cutscene Trigger** Game Object will be created in your Unity Scene.

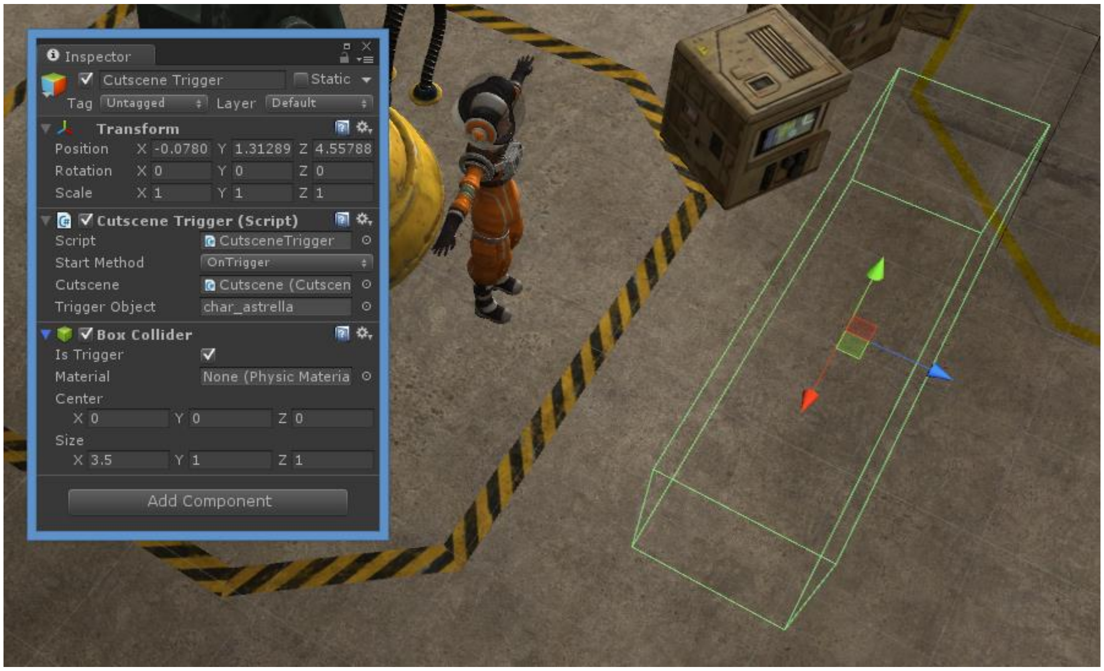

Cutscene Trigger (Script)

Cutscene: None (Cutscene)
Start Method: On Trigger
Trigger Object: None (Game Object)
Skip Button Name: Jump

Figure 21: Cutscene Trigger Settings

Clicking this game object and working in the Unity Inspector will allow you to:

- Select the **Start Method** – Choices are **OnStart** or **OnTrigger**.
- Select which **cutscene** to trigger (if you have multiple cutscenes).
- Select the **Trigger Object,** which is the Unity Game Object that will interact with the Box Collider that has been created in the scene for the trigger mechanism.
- Enter the Skip Button Name, which will skip the cutscene on an assigned command that is setup under the Input area of the Unity Project Settings


Inspector

☑ Cutscene Trigger ☐ Static
Tag: Untagged Layer: Default

Transform
Position X -0.0780 Y 1.31289 Z 4.55788
Rotation X 0 Y 0 Z 0
Scale X 1 Y 1 Z 1

☑ Cutscene Trigger (Script)
Script: CutsceneTrigger
Start Method: OnTrigger
Cutscene: Cutscene (Cutscen
Trigger Object: char_astrella

☑ Box Collider
Is Trigger: ☑
Material: None (Physic Materia
Center X 0 Y 0 Z 0
Size X 3.5 Y 1 Z 1

Figure 22: Cutscene Set to start On Trigger

Figure 22 shows how settings would look for configuring a cutscene “OnTrigger”. In this example, the cutscene will start when the game character (Astrella) is moved into the box collider on the right.

Using the I’m Feeling Lucky Button

Another option is to use the **I’m Feeling Lucky** button. This button uses artificial intelligence to analyse your current Unity scene and automatically pre-select Unity Objects that it deems may be relevant to creating a cutscene. Those objects are automatically populated to the Actor Track Groups you have selected. For example, if you select four Actor Track Groups, the I’m Feeling Lucky button will select four Unity objects. We will improve this functionality in future versions of Cinema Director, and plan on adding even more AI to the software, so stay tuned!

Figure 19 shows the cutscene that has been created for the settings shown in **Figure 18** above. We will continue to use these settings to show the functionality of Cinema Director.

Selecting Between Multiple Cutscenes

Cinema Director allows you to have as many cutscenes in your Unity Scene as you like. You can toggle between cutscenes using the pulldown in the Cinema Director window that displays your cutscene name.

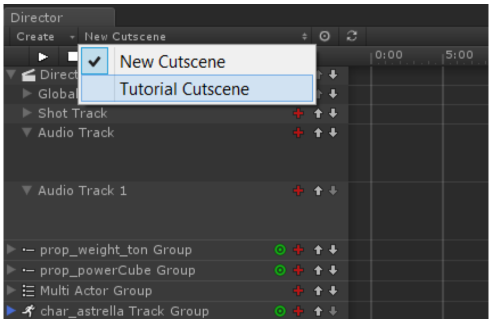

Director
Create
New Cutscene
0:00
5:00
New Cutscene
Tutorial Cutscene
Direct
Global
Shot Track
Audio Track
Audio Track 1
prop_weight_ton Group
prop_powerCube Group
Multi Actor Group
char_astrella Track Group

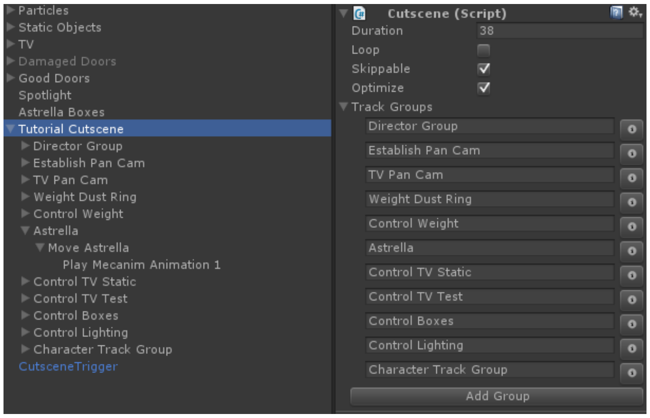
Figure 23: Cutscene Selection

Reordering Groups

If you do not like the order that Groups or Tracks have been populated in, you can re-order them at any time. Simply select either the up or down arrow ⬆ ⬇ beside the Group or Track you would like to move, and it will re-order accordingly.

Cutscenes in the Unity Inspector

Unity will store all information about your cutscene in the Hierarchy as game objects within the current scene. When you select the cutscene in the Hierarchy tree, information about all of the cutscene’s properties will be displayed in the Unity Inspector. If you are an advanced Unity User, many


Particles
Static Objects
TV
Damaged Doors
Good Doors
Spotlight
Astrella Boxes
Tutorial Cutscene
Director Group
Establish Pan Cam
TV Pan Cam
Weight Dust Ring
Control Weight
Astrella
Move Astrella
Play Mecanim Animation 1
Control TV Static
Control TV Test
Control Boxes
Control Lighting
Character Track Group
CutsceneTrigger
Cutscene (Script)
Add Group

Duration 38
Loop ☐
Skippable ☑
Optimize ☑
Track Groups
Director Group
Establish Pan Cam
TV Pan Cam
Weight Dust Ring
Control Weight
Astrella
Control TV Static
Control TV Test
Control Boxes
Control Lighting
Character Track Group

Figure 24: Unity Inspector Cutscene View

of the options can be set here, instead of in the Director Window. Think of the Director Window as a visual editor to the game objects that are associated to the cutscene in the Unity Inspector. Changes you make in the Unity Inspector will reflect in the Director Window, and vice versa. The remainder of this documentation will only cover cutscene creation using the Director Window, and we will touch on changing options in the Unity Inspector as required.

Working with Groups

As mentioned in the Director Overview section of this document, there are 3 types of groups you can create in Cinema Director. To create a group, simply click the **Create pulldown** in the Director Window and select the group type you want to add. Let's add a new Director Group.

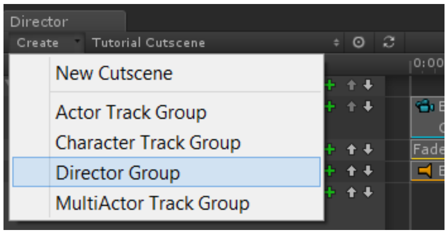

Director
Create
Tutorial Cutscene
0:00
New Cutscene
Actor Track Group
Character Track Group
Director Group
MultiActor Track Group
Fade

Figure 25: Adding Groups

Creating Director Groups

The Director Group is represented by this icon 🎬 . Starting with an empty cutscene, adding a Director Group will display as shown in **Figure 26** (Side). As discussed earlier, Director Groups control tracks that globally effect the scene. There are three types of tracks that can be added – Shot Tracks, Audio Tracks and Global Tracks. To add one of these tracks, click the red plus icon + located beside the Director Group name, you will then be presented with the option to add one of these tracks. Let's add a shot track.

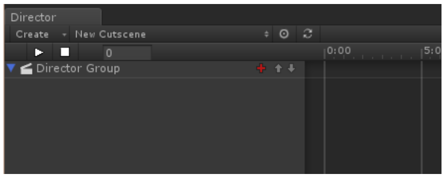

Director
Create
New Cutscene
0
0:00
5:0
Director Group

Figure 26: Empty Director Group

Shot Tracks

The shot track will allow you to set up cameras in your cutscene that will change shots over time. To add a shot track, click the red plus located beside the Director Group name and chose "Shot Track" from the pull-down menu. A new track will appear in your timeline, with the same red plus icon + beside the name. Clicking the red plus will add a **Shot** to your timeline of five (5) seconds in length as shown in **Figure 27** and the red plus sign will turn green + . Events such as this placed on the timeline are known as **Track Items**. Notice that the Shot created in the timeline is red. This means that there is no camera assigned to the shot as of yet.

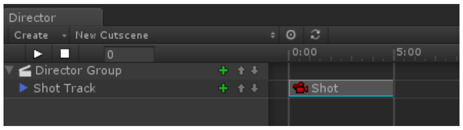

Director
Create
New Cutscene
0
0:00
5:00
Director Group
Shot Track
Shot

Figure 27: New Shot in Director

Adding a Camera

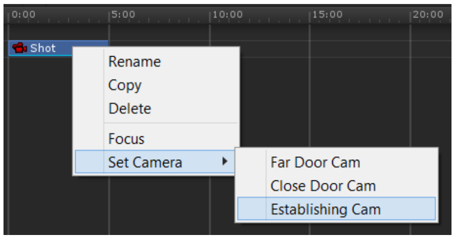

0:00
5:00
10:00
15:00
20:00
Shot
Rename
Copy
Delete
Focus
Set Camera
Far Door Cam
Close Door Cam
Establishing Cam

Figure 28: Attaching a camera

To add a camera, right click on the newly created Shot in the timeline. You will be able to select "Set Camera" from the pull down menu. When you select this, Cinema Director will look for any active cameras in your scene and allow you to select them. We will chose "Establishing Cam", which is a camera we previously created in our scene. Once the camera is selected, the Shot Camera icon in the timeline will from red to blue.

Focusing and Deleting Shots

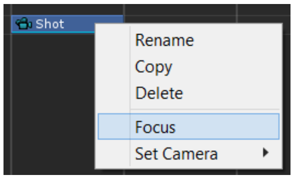

Shot
Rename
Copy
Delete
Focus
Set Camera

Figure 29: Say Cheese!

If you would like to see how the chosen camera associated to the newly created shot is aligned, right click on the shot once again, and select "Focus". You will notice that your scene view in Unity will now reflect what the camera is looking at.

If you would like to remove the shot, right click on the shot and select "Delete". You can also remove the shot from the timeline by highlighting the shot with your mouse, and hitting the delete key on the keyboard.

Adding additional Shots

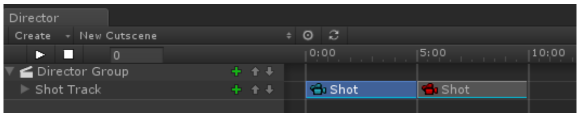

Director
Create
New Cutscene
0
0:00
5:00
10:00
Director Group
Shot Track
Shot
Shot

Figure 30: Multiple Shots

Selecting the green plus icon + will add a second shot to your timeline. Right click on the shot, and add a second camera. For our example, we are going to select the "Far Door Cam" in our project. A second shot of five seconds long will be added, and will also be named "Shot". As you build shots, it may start to become difficult to keep track of things. Cinema Director is fully customizable, and allows you to rename anything that you create.

Renaming Shot Items

To rename a shot in Cinema Director, right-click the shot item and select "Rename" from the context menu. You can also rename by selecting the shot, and renaming the game object in the Unity Inspector.

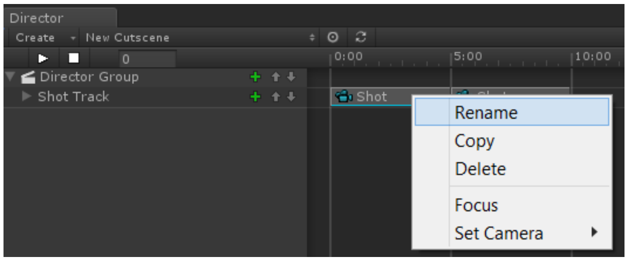
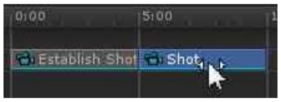

Director
Create
New Cutscene
0
0:00
5:00
10:00
Director Group
Shot Track
Shot
Rename
Copy
Delete
Focus
Set Camera

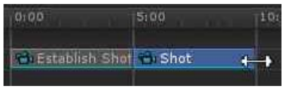
Figure 31: Renaming Track Items

NOTE: ALL track items in Cinema Director can be renamed using this method.

Moving and resizing Track Items


0:00
5:00
Establish Shot
Shot

Shot Track Items like we just created, and any other track items that run over a period of time can be moved and resized. To **move** a track item, hover your mouse over that item. You will see your mouse cursor change to have small arrows added on each side. Click and hold then move the track item to the new desired location. If you have snap enabled in the Cinema Director toolbar, the time of the track item will snap to the grid accordingly.


0:00
5:00
10:
Establish Shot
Shot

To **resize** a Track Item, hover your mouse over the left or right edge of the track item. Once the double arrow icon appears, drag to the left or right. This will make the track item longer or shorter. The snap setting also applies for resizing track items, if you have it enabled.

Previewing Shots

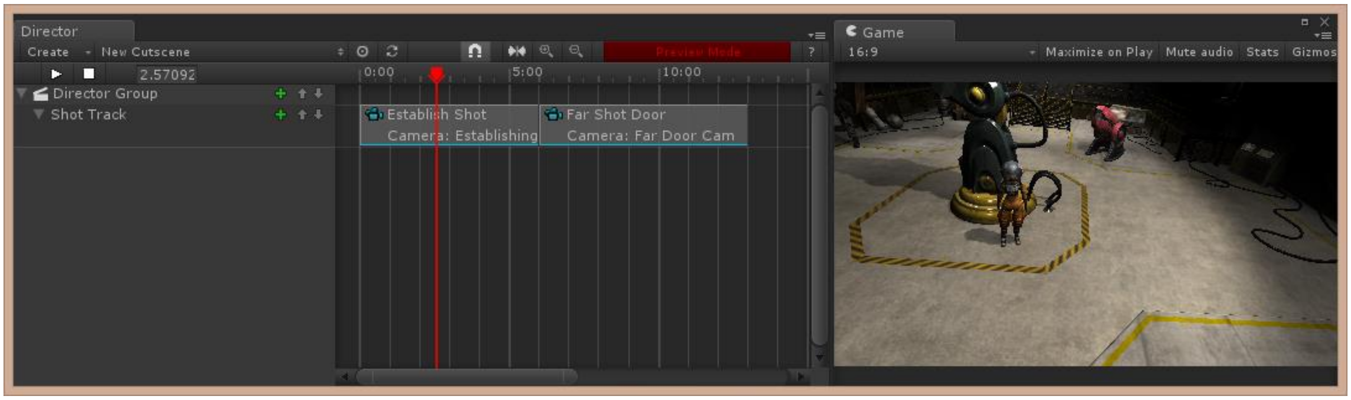

Director
Create
New Cutscene
2.57092
0:00
5:00
10:00
Preview Mode
?
Director Group
Shot Track
Establish Shot
Camera: Establishing
Far Shot Door
Camera: Far Door Cam
Game
16:9
Maximize on Play
Mute audio
Stats
Gizmos

Figure 32: Shot Preview in Game Window

Once you have your shots created, you can then use the scrub time tool or the play button on the Cinema Director toolbar to preview what your camera shots look like in Cinema Director. Click and hold on the time scrub marker and drag left or right to see your shots reflect in the Unity Game Window. If you want to view as per real time, hit the spacebar, or hit the play button ▶ on the Cinema Director toolbar as shown in **Figure 32**. Notice the additional information available to you when expanding the shot track.

Audio Tracks

Cinema Director makes adding audio to your scene quick and easy. We will add some background music to our cutscene by clicking on the green plus icon ➕ beside the Director Group and selecting "Add Audio Track". You will see a new track created under your director group called "Audio Track". Again, if you would like to change the name of the track, right-click the track name, then rename the Game Object. We will rename our track "Background Music".

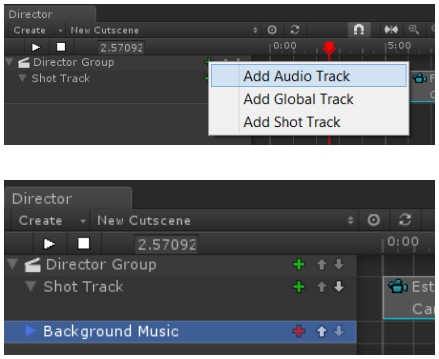

Director
Create
New Cutscene
2.57092
0:00
5:00
Director Group
Shot Track
Add Audio Track
Add Global Track
Add Shot Track
Background Music

Figure 33: Adding Audio

Assigning Audio

To add the audio clip that you would like to apply to the track, click the red plus icon ➕ beside the track name. Cinema Director will then display all available audio in your Unity Project, and allow you to select a clip.

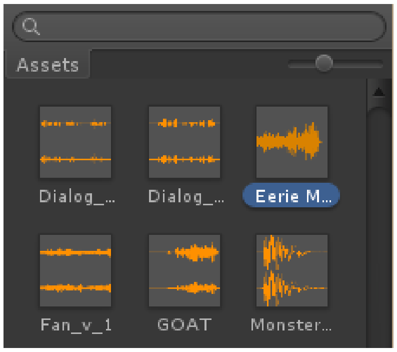

Assets
Dialog_...
Dialog_...
Eerie M...
Fan_v_1
GOAT
Monster...

Figure 35: Audio Clip Selection

Once the clip is selected, it will be applied to the audio track on the Timeline. You can then move or resize the track event that has been created in the exact same way as shot tracks, described above. Audio track events will appear orange in the timeline. Resizing the audio track event will clip the audio at its in or out point. You can have as many audio track events on a single audio track as you want, as long as there is sufficient space available on the track. Expanding the Audio track will show the audio's wave pattern.

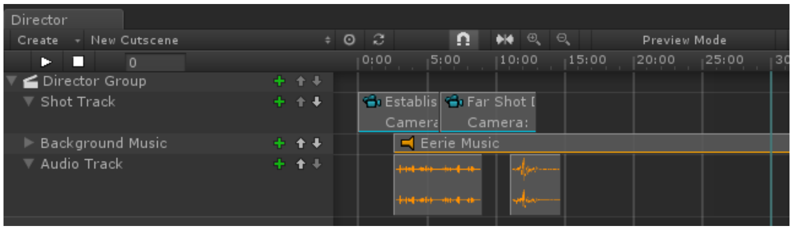
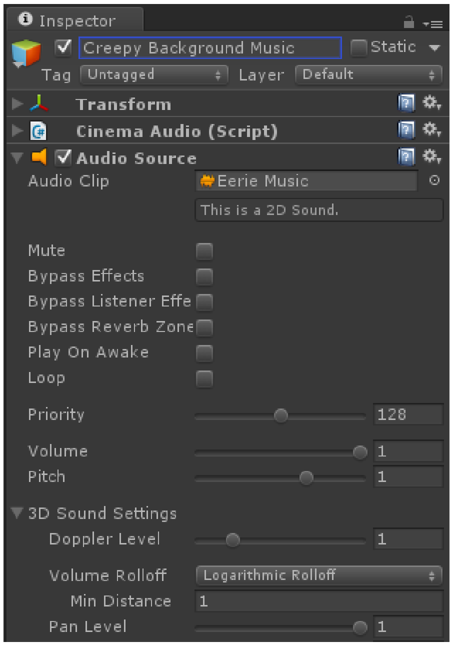

Director
Create
New Cutscene
Preview Mode
0
0:00
5:00
10:00
15:00
20:00
25:00
Director Group
Shot Track
Background Music
Audio Track
Establis
Camera
Far Shot
Camera:
Eerie Music

Figure 34: Audio Tracks in Cinema Director

Multiple Audio Clips

To add another audio clip to the same track, click the green plus button (that was once red) and follow the same process above in **Figure 33**. Cinema Director also allows you to have as many Audio Tracks as you wish. To add a second audio track, follow the same steps above by clicking on the green plus sign beside Director Group, and selecting "Add Audio Track". A new Audio Track will appear, and you can now assign new audio clips as described above.

Figure 34 shows an example of multiple audio clips created on a single Audio Track, as well as multiple Audio Tracks, inside the Cinema Director Window. When you hit the play button, scrub the timeline using the time scrubbing tool or hit play in game, the new audio will play. If you are using multiple audio tracks, all of the audio will play simultaneously, allowing you a great way to mix audio.


Inspector
Transform
Cinema Audio (Script)
Audio Source
3D Sound Settings

☑ Creepy Background Music ☐ Static
Tag Untagged Layer Default
☑ Audio Source
Audio Clip Eerie Music
This is a 2D Sound.
Mute ☐
Bypass Effects ☐
Bypass Listener Effe ☐
Bypass Reverb Zone ☐
Play On Awake ☐
Loop ☐
Priority 128
Volume 1
Pitch 1
Doppler Level 1
Volume Rolloff Logarithmic Rolloff
Min Distance 1
Pan Level 1

Figure 36: Audio Settings

Adjusting Audio

Cinema Director makes it very easy to adjust audio after it has been added to the timeline. Selecting the Audio Track Item will display all of the audio's properties in the Unity Inspector. Here you can change settings such as the Audio Clip's name, Bypass effects, priority, volume, pitch, 2D and 3D sound settings, and more.

Global Tracks

Global Tracks contain additional events that are applied globally to your Cinema Director Cutscene. They control an extensive event library that can help you add additional effects to your cutscene, or provide useful tools. Events created with Global Tracks can range from transitions, to creating storyboard images of your cutscene. For a full list of possible Global Track events, see **Appendix A** at the end of this document.

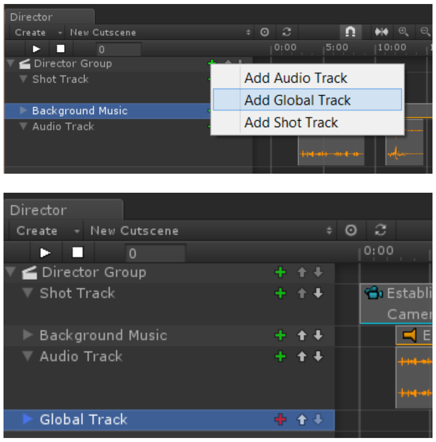

Director
Create
New Cutscene
0
0:00
5:00
10:00
Director Group
Shot Track
Background Music
Audio Track
Add Audio Track
Add Global Track
Add Shot Track
Global Track

Figure 37: Adding Global Tracks

Creating a Global Track

Creating a Global Track is no different than creating a shot track or audio track. Click the green plus icon + beside the Director Group, and select "Add Global Track". Once your track is added, you can rename it using the previous methods mentioned above.

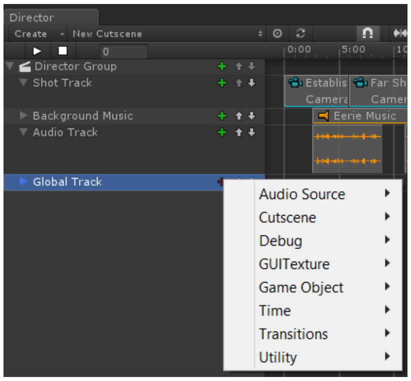

Director
Create
New Cutscene
Director Group
Shot Track
Background Music
Audio Track
Global Track
Establis Camera
Far Sh Camer
Eerie Music
Audio Source
Cutscene
Debug
GUITexture
Game Object
Time
Transitions
Utility

Figure 38: Global Track Event Menu

Assigning Global Track Events

To add a Global Track Event that you would like to apply to the track, click the red plus icon + beside the track name. Cinema Director will then display the menu with flyouts shown in **Figure 38**.

For the purpose of this tutorial we are going to add two different event types – a Transition (Fade from Black) and a Utility (Storyboard). Transitions create events similar to Shot or Audio Tracks that last over a certain period of time. Storyboard creates a **trigger**, which is an event that initializes exactly at a certain point in time.

Working with Global Events over Time

To add a **Fade from Black** transition, select **Transitions > Fade from Black**. A new track event will appear in the Global Track, called **Fade from Black**. To rename the event, either right-click the event, or rename the Game Object in the Unity Inspector after selecting the event.

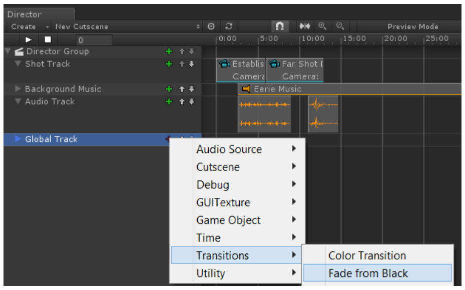

Director
Create
New Cutscene
Preview Mode
Director Group
Shot Track
Background Music
Audio Track
Global Track
Establis Camera
Far Shot Camera
Eerie Music
Audio Source
Cutscene
Debug
GUITexture
Game Object
Time
Transitions
Utility
Color Transition
Fade from Black

Figure 39: Adding Transitions

You can then move or resize the Global Track event that has been created in the exact same way as shot and audio tracks, described above. Global Track Events will appear pink colour in the timeline. Resizing the global track event will adjust how much time the event will take to complete. **Figure 40** shows how a Global Track that operates over time looks in the Cinema Director Timeline.

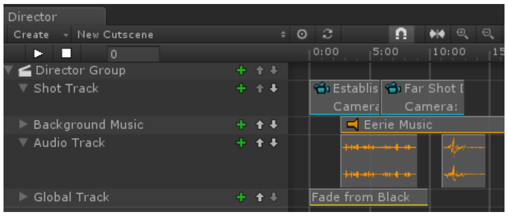

Director
Create
New Cutscene
Director Group
Shot Track
Background Music
Audio Track
Global Track
Establis Camera
Far Shot Camera
Eerie Music
Fade from Black

Figure 40: Global Track Event Over Time

Working with Global Events Triggers

Next we will add a storyboard event, to demonstrate how triggered events work. Click the green plus sign + beside the Global Track and select **Utility >**

Storyboard. A **large keyframe** marker will appear on the timeline which is followed by the name of the event you selected. Clicking on the keyframe marker will display the Global Event Track Game Object in the Unity Inspector, where you can change the name of the event if you wish. The Storyboard event will create a screenshot of your cutscene, and place it in the **Assets > Storyboard** folder of your existing Unity Project. For a detailed explanation of how Global Track Events work, see **Appendix A** at the end of this documentation.

Global Events that are triggers cannot be resized, but they can be moved along the timeline by clicking and then dragging the event to a new desired location.

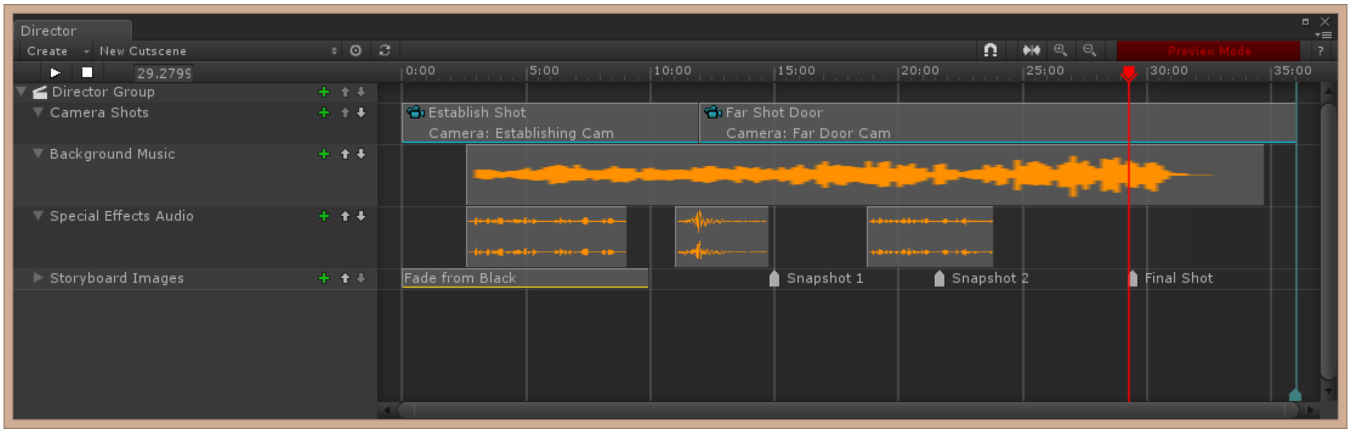

Director
Create
New Cutscene
Preview Mode
29.2799
0:00
5:00
10:00
15:00
20:00
25:00
30:00
35:00
Director Group
Camera Shots
Background Music
Special Effects Audio
Storyboard Images
Establish Shot
Camera: Establishing Cam
Far Shot Door
Camera: Far Door Cam
Fade from Black
Snapshot 1
Snapshot 2
Final Shot

Figure 41: Complete Director Group & Timeline

Figure 41 shows our complete Director Group with the Global Track and Global Track Items renamed. You can have as many Global Track Events on a single global track as you want, as long as there is sufficient space available on the track. Cinema Director allows you to create as many Global Tracks and Global Track Events as you wish.

Hitting play in the Cinema Director toolbar, or clicking and dragging the time scrubbing tool, will preview your Global Track events in the Unity Game Window. Certain Global Track Events cannot be previewed. To learn about all of the Global Track Events available, what they do, and if they can be previewed with Cinema Director, see **Appendix A** at the end of this documentation.

Creating Actor Track Groups

Actor Track Groups are represented •– by the icon. Starting with an empty cutscene, add an Actor Track Group by clicking on the **Create** pulldown in the Cinema Director Window and selecting **Actor Track Group** from the fly-out menu. Adding an Actor Track Group will display as shown in **Figure 42** (Side). As discussed earlier, Actor Track Groups control individual Game Objects inside your Unity scene. There are two types of tracks that can be added – Actor Tracks and Curve Tracks. To add one of these tracks, click the red plus icon ➕ located beside the Actor Track Group name, you will then be presented with the option to add one of these tracks.

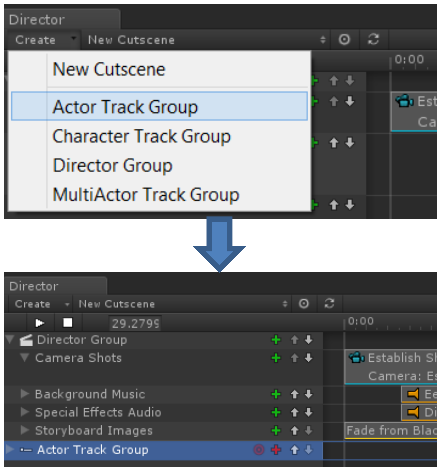

Director
Create
New Cutscene
0:00
New Cutscene
Actor Track Group
Character Track Group
Director Group
MultiActor Track Group
Director
Create
New Cutscene
29.2799
0:00
Director Group
Camera Shots
Background Music
Special Effects Audio
Storyboard Images
Actor Track Group
Establish Sh
Camera: E
Fade from Blac

Figure 42: Adding an Actor Track Group

Selecting a Game Object

Before deciding which track you will add, you should first select a Game Object in Unity that the Actor Track Group will control. To do this, click the red target icon ◎ located beside the Actor Track Group Name. The target is red when no Game Object has yet been associated with the Actor Track Group. **Note:** You CANNOT select a game object if the timeline is in preview mode. In this example, we want to control movement of one of our cameras. Clicking the target icon will open a Unity Selection Window, where you can search for, and select the Unity Game Object you want to control. For this example, we are going to select the Establishing Cam Game Object as shown in Figure 43. Once selected, the target button will turn green. ◎

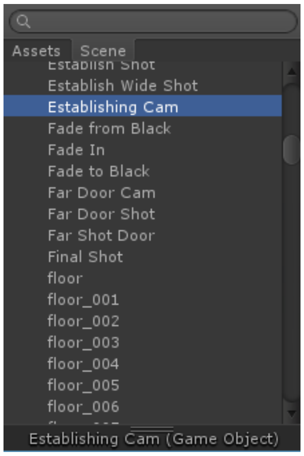

Assets
Scene
Establish Shot
Establish Wide Shot
Establishing Cam
Fade from Black
Fade In
Fade to Black
Far Door Cam
Far Door Shot
Far Shot Door
Final Shot
floor
floor_001
floor_002
floor_003
floor_004
floor_005
floor_006
Establishing Cam (Game Object)

Figure 43: Game Object Selection

Creating a Curve Track

Clicking the red plus sign will allow you to add either an Actor Track or a Curve Track to the timeline. Curve tracks allow you to dynamically manipulate the properties of an object over time by using curves and keyframes. We are going to add a curve track to control the movement of the Establishing Cam.

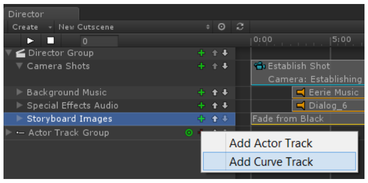

Director
Create
New Cutscene
0
0:00
5:00
Director Group
Camera Shots
Background Music
Special Effects Audio
Storyboard Images
Actor Track Group
Establish Shot
Camera: Establishing
Eerie Music
Dialog_6
Fade from Black
Add Actor Track
Add Curve Track

Figure 44: Adding Curve Tracks

Adding a Curve Track will display the new track on the timeline. Click the Expand arrow to the left of the Curve Track name. Notice that the curve track, at this point is empty. To proceed, we need to add a **Curve Clip.**

Adding Curve Clips

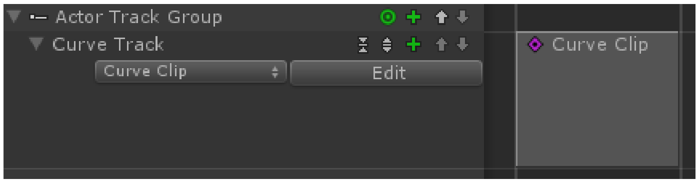

Actor Track Group
Curve Track
Curve Clip
Edit
Curve Clip

Figure 45: Empty Curve Clip

A curve track can hold many Curve Clips. These are events that control the movement of the Game Object that has been assigned to the Actor Track Group. If you would like to manipulate the Game Object multiple times over the course of the cutscene, you would create additional Curve Clips to do so.

To add a Curve Clip, click the red plus icon + on the newly created Curve Track. Once you do so, the plus will turn green, and you will see a new Curve Clip populate inside the Curve Track. The clip can then be resized and moved using the same methods of any other event type in Cinema Director.

Selecting a Curve Type

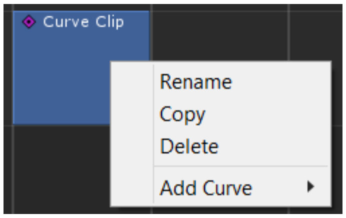

Curve Clip
Rename
Copy
Delete
Add Curve

Figure 46: Adding a Curve

When you create the curve clip, it will be empty and waiting to be assigned a component to track. Right click on the Curve Clip and select **Add Curve**. Selecting Add Curve will display a fly-out menu which will allow you to select a component to track. The components listed will be read from the Game Object that has been selected and applied to the Actor Track Group. Once the component is selected, you can then select the property of that component you want the curve editor to control by selecting it from the fly-out list.

Working with Transform Curves

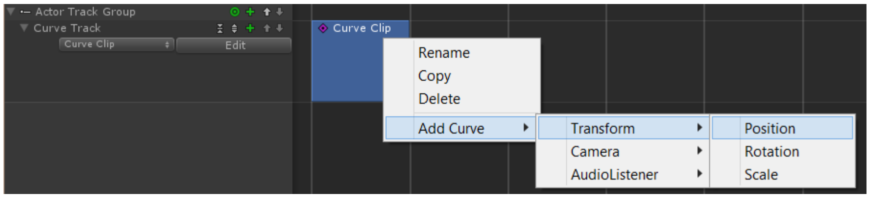

Actor Track Group
Curve Track
Curve Clip
Edit
Curve Clip
Rename
Copy
Delete
Add Curve
Transform
Camera
AudioListener
Position
Rotation
Scale

Figure 47: Setting Curve Type

Since we are selecting a Camera Object, components only valid to this Game Object Type will be visible. For this example, we are going to track the **Transform** component. When you select a Component, you can then select a property that is valid for that Component. Since we want to move the Establishing Cam over time, we will select **Position**.

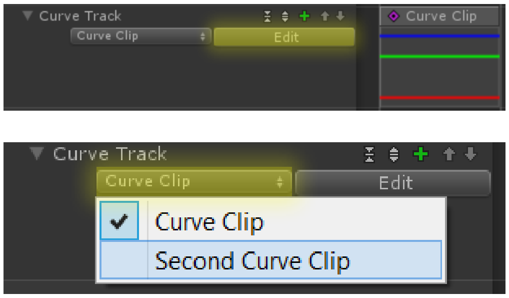

Curve Track
Curve Clip
Edit
Curve Clip
Curve Track
Curve Clip
Edit
Curve Clip
Second Curve Clip

Figure 48: Editing Curves

Because we selected the transform option, three curves will display, each for the X, Y, and Z axis in Unity. To modify the curves, select the Curve Clip you would like to edit from the pulldown in the curve track area. Then, select the **Edit** button. This will display keyframes that you can then use to modify your curves. Since we only have one Curve Clip, only that Curve Clip will appear in the edit pulldown menu. If you want to edit multiple Curve clips on the same track, simply select the Curve Clip you want to edit from the edit pulldown and then click the edit button, as shown in **Figure 48.**

Working with Master Keyframes

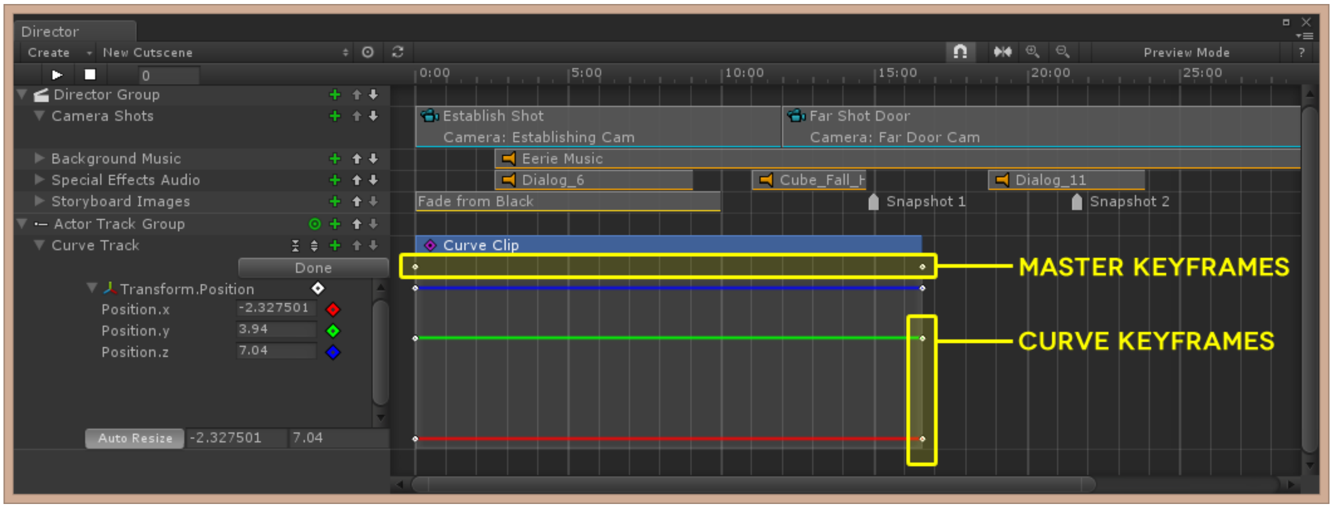

Director
Create
New Cutscene
Preview Mode
0:00
5:00
10:00
15:00
20:00
25:00
Director Group
Camera Shots
Background Music
Special Effects Audio
Storyboard Images
Actor Track Group
Curve Track
Done
Transform.Position
Position.x -2.327501
Position.y 3.94
Position.z 7.04
Auto Resize -2.327501 7.04
Establish Shot
Camera: Establishing Cam
Far Shot Door
Camera: Far Door Cam
Eerie Music
Dialog_6
Cube_Fall_F
Dialog_11
Fade from Black
Snapshot 1
Snapshot 2
Curve Clip
MASTER KEYFRAMES
CURVE KEYFRAMES

Figure 49: Keyframes in Curve Tracks

Eight **Keyframes** are automatically generated when the curve is edited. The top right and left keyframe are known as **Master keyframes**, and control the length of the curve. The overall length of the curve is constrained by the overall length of the Curve Clip Event. Clicking and dragging either of these Keyframes will extend or contract all curves at once. To extend the time of the curve event, simply hover over the edge of the curve clip and drag. In **Figure 49**, we have adjusted the curve track's length to match the length of the Establish shot track by clicking and holding the right edge of the Curve Clip Event and dragging to the right.

Working with Curve Keyframes

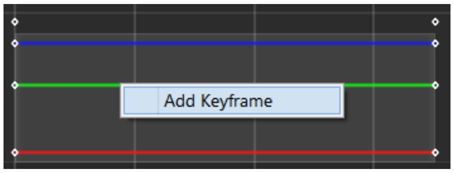

Add Keyframe

Figure 50: Adding Keyframes

Curve Keyframes control each curve independently of the other. By clicking and dragging a Curve Keyframe, you will adjust the intensity of the curve. This will control the Game Object that is assigned to the Actor Track Group over time. If you want additional precision and control of a curve, you can right click on a curve and select Add Keyframe. This will place a set of keyframes exactly at the point on the curve that you clicked. You can then move all keyframes created by clicking and dragging the Master keyframe at the top, or individually control the curve by clicking and dragging one of the individual keyframes. To add further control, you can move the time scrubbing tool directly to a keyframe by right clicking on a master keyframe and selecting **Snap Scrubber.**

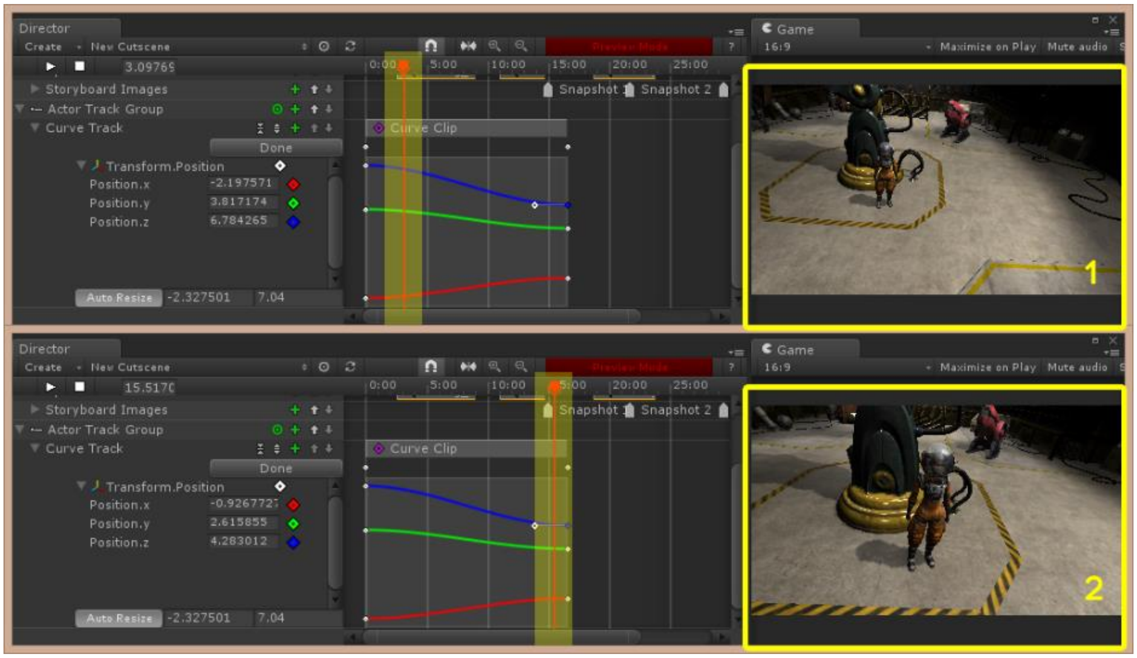

Director
Create
New Cutscene
Storyboard Images
Actor Track Group
Curve Track
Done
Transform.Position
Position.x
Position.y
Position.z
Auto Resize
Curve Clip
Snapshot 1
Snapshot 2
Game
16:9
Maximize on Play
Mute audio
1
2

Figure 51: Keyframes set to move camera object

Figure 51 shows how we have selected the end curve keyframes, and adjusted the camera movement. When you click and drag keyframes, you will immediately see the change take place in your game window. Notice how the camera now pans in towards the center of the scene after adjusting the three curves individually.

Using Game Objects to Create Keyframes

One great feature of Cinema Director, is that you can create keyframes on your curve track by selecting the Game Object in your Unity scene and moving it using the Unity Transform controls, either in the scene window or in the Inspector.

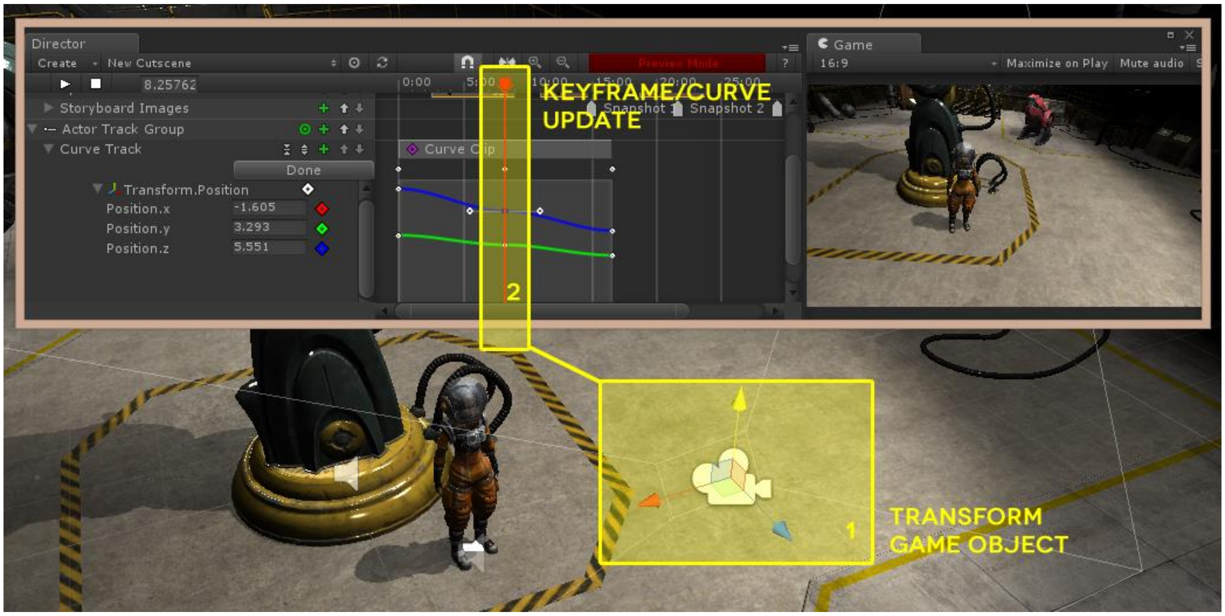

Director
Create
New Cutscene
8.25762
0:00
5:00
10:00
15:00
20:00
25:00
Preview Mode
Storyboard Images
Actor Track Group
Curve Track
Done
Transform.Position
Position.x
-1.605
Position.y
3.293
Position.z
5.551
Curve Clip
Snapshot 1
Snapshot 2
KEYFRAME/CURVE UPDATE
2
Game
16:9
Maximize on Play
Mute audio
1
TRANSFORM GAME OBJECT

Figure 52: Creating Keyframes by Transforming Game Objects

To do this, move your time scrubbing tool to where you want the keyframes created. This will put Cinema Director into **Preview Mode**. Then, select your game object in the Unity scene, and manipulate its X, Y and Z transform values. You will notice that the curves update to reflect exactly where you are moving the game object. This is a great visual aid, to make sure that objects behave exactly as intended when building your cutscene.

Figure 52 shows how we have moved the Establishing Cam Game Object closer to the character in the Unity Scene Window. Notice the visual update in the Game Window, as well as the keyframes being created in the curve track. Also, the curves themselves dynamically update to reflect the Game Object’s Movement.

Using Keyframe Grips to Modify a Curve

When you select a keyframe, you can click and drag to move in any direction. However, **Keyframe Tangent Grips** also appear when you select a keyframe, and allow you to further refine the curve. Clicking the grip point and dragging, will modify the curve in relation to the grip's tangent.

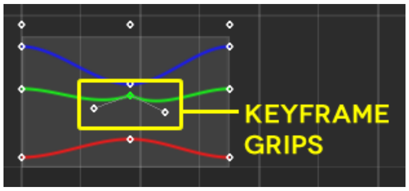


Figure 53: Keyframe Grips

Keyframe Tangent Grip Types

Right clicking on a keyframe will display many different options that you can use to manipulate a curve in fine detail. Auto, Free Smooth, Flat and Broken affect how the Keyframe Tangent Grips behave.

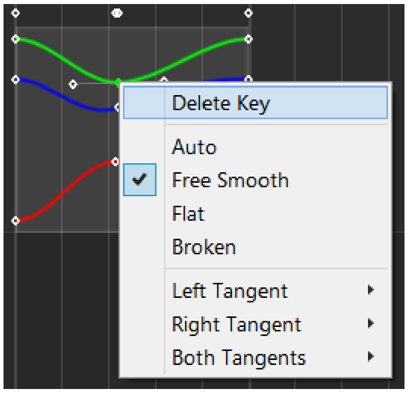


Figure 54: Keyframe Editing

Auto – Disables Keyframe Tanget Grips and takes a best guess on adjusting the curve when moving the keyframe.

Free Smooth – Selecting either the left or right Tangent Grip will manipulate the entire curve at once.

Flat – Returns the Keyframe Tanget Grip to a linear (flat) position.

Broken – Breaks the curve at the Keyframe, and allows individual adjustment of the left and right Keyframe Tangent Grip, affecting the left and right segment of the curve accordingly.

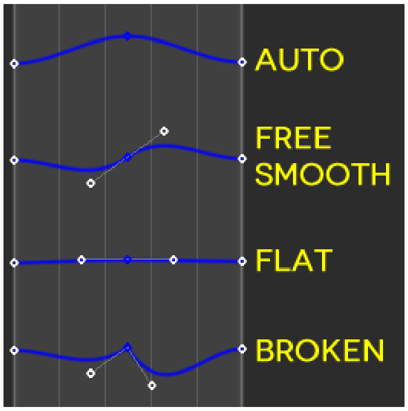


Figure 55: Keyframe Tangent Grip Options

Clicking and dragging a Keyframe Tanget Grip will manipulate your curve. Dragging the mouse farther away from the grip will give you more precise control over the curve's adjustment.

Advanced Curve Control

Cinema Director allows the ability to change the type of curve that is created, by modifying how the Keyframe Tangent Grip affects the curve. This allows for even further control of how curves are created. When you right click on a keyframe, you can select how either the right tangent, left tangent or both tangents control the selected keyframe (**Figure 54**).

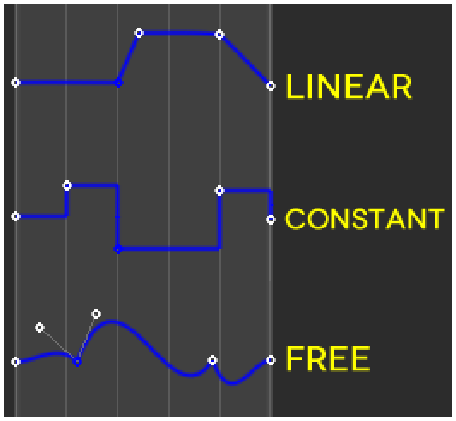

LINEAR
CONSTANT
FREE

Figure 56: Curve Types

Linear – The curve segment will become a straight line between the neighbouring keyframe. A linear curve segment can be made by setting the tangents at both ends to be Linear.

Constant – The curve retains a constant value between two keyframes. The value of the left key determines the value of the curve segment.

Free – Similar to above, free will automatically break the keyframe, and allow for manipulation of the left and right Keyframe Tangent Grips, independent of each other.

Controlling Curves with Numeric Input

It is possible to manually enter values for a keyframe, if exact precision is required. To enter a value for a keyframe, select the master keyframe, right click and select "Snap scrubber" This will snap the time scrubbing tool to your keyframe. Then, in the canvas area, enter a new number for the desired keyframe. In **Figure 57**, we are modifying the Z curve to have a value of 1.5 at the selected keyframe.

It is also possible to create new keyframes using an assigned value. Move the time scrubbing tool to the location that you would like the new keyframe, then, click on the keyframe icon in the curve track canvas. Select "Add Key" and then assign a new value. In **Figure 57**, we are adding a new key to the Z curve and assigning a value of 1.

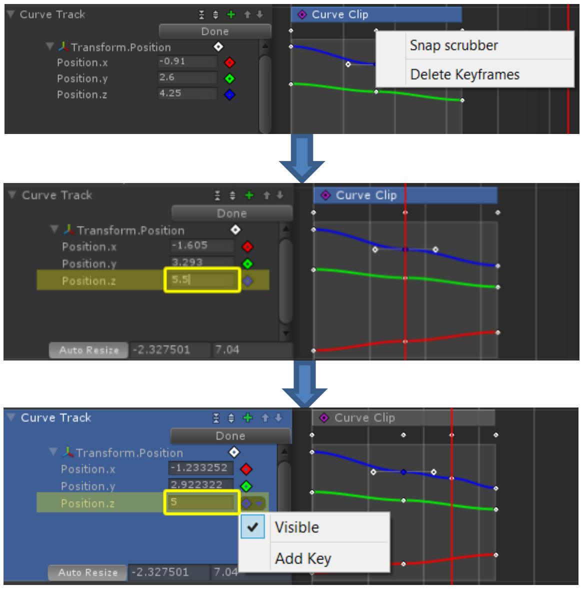

Curve Track
Done
Transform.Position
Position.x
Position.y
Position.z
-0.91
2.6
4.25
Curve Clip
Snap scrubber
Delete Keyframes
Curve Track
Done
Transform.Position
Position.x
Position.y
Position.z
-1.605
3.293
5.5
Auto Resize
-2.327501
7.04
Curve Clip
Curve Track
Done
Transform.Position
Position.x
Position.y
Position.z
-1.233252
2.922322
5
Auto Resize
-2.327501
7.04
Curve Clip
Visible
Add Key

Figure 57: Controlling Keyframes Numerically

Adding Additional Curves to a Curve Clip

It is possible to track more than one transformation type in a curve clip. To add an additional set of curves, right click on the curve click in your curve track, and repeat the process for adding a curve to the curve clip. Once the curve is added, you will now see those curves available for keyframing, complete with their own colour set. The new curve's properties will be added to the canvas area as shown in **Figure 58**.

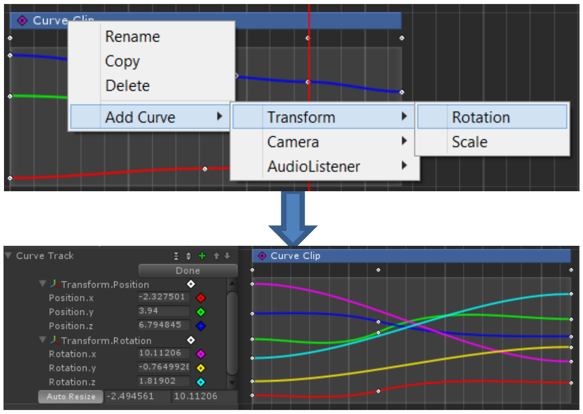

Curve Clip
Rename
Copy
Delete
Add Curve
Transform
Camera
AudioListener
Rotation
Scale
Curve Track
Done
Transform.Position
Position.x
-2.327501
Position.y
3.94
Position.z
6.794845
Transform.Rotation
Rotation.x
10.11206
Rotation.y
-0.764992
Rotation.z
1.81902
Auto Resize
-2.494561
10.11206
Curve Clip

Figure 58: Adding Additional Curves

Controlling Visibility of Curves

When doing complex work, many curves in a single curve clip can become confusing and distracting. With Cinema Director, you can control the visibility of curves. You can either make individual curves invisible, or make the entire curve set invisible.

To make the entire curve set invisible, select the white keyframe icon beside the curve set name, in the Cinema Director canvas, and select "Visible" as shown in **Figure 59**. To make the curve set re-appear, once again select the white keyframe icon, and select "Visible".

To make an individual curve invisible, the process is the same as above, except you select the coloured keyframe icon beside the curve that you would like to control. **Figure 59** shows us making the Z curve for Position invisible.

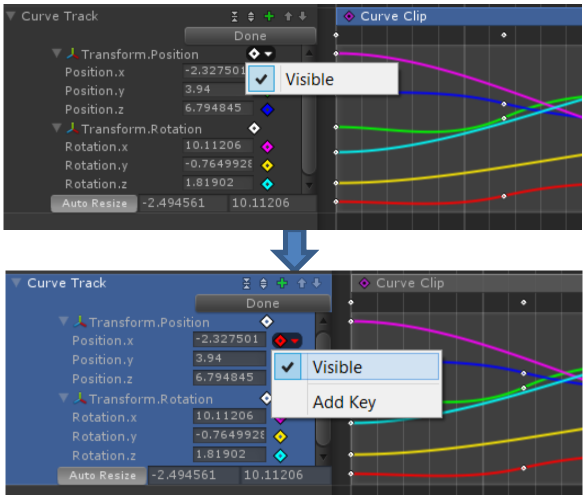

Curve Track
Done
Transform.Position
Position.x
-2.327501
Position.y
3.94
Position.z
6.794845
Transform.Rotation
Rotation.x
10.11206
Rotation.y
-0.764992
Rotation.z
1.81902
Auto Resize
-2.494561
10.11206
Curve Clip
Visible
Add Key

Figure 59: Curve Visibility

Deleting Keyframes

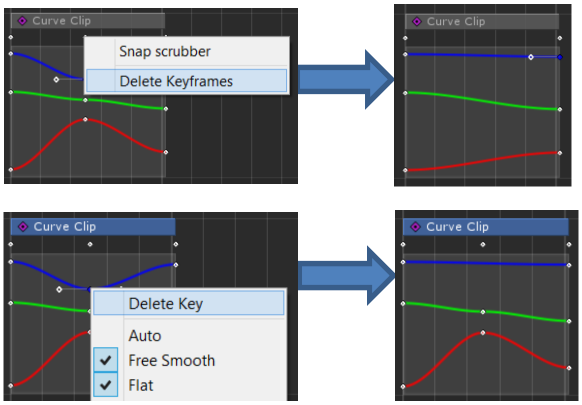

Curve Clip
Snap scrubber
Delete Keyframes
Curve Clip
Curve Clip
Delete Key
Auto
Free Smooth
Flat
Curve Clip

Figure 60: Deleting Keyframes

In **Figure 60**, we demonstrate the effect of deleting Master keyframes, and deleting individual keyframes. Right clicking on any master keyframe and selecting **Delete Keyframes** will remove all individual keyframes at one time, If you want to delete the portion of only one curve, right click an individual keyframe and select **Delete Key**.

Creating an Actor Track

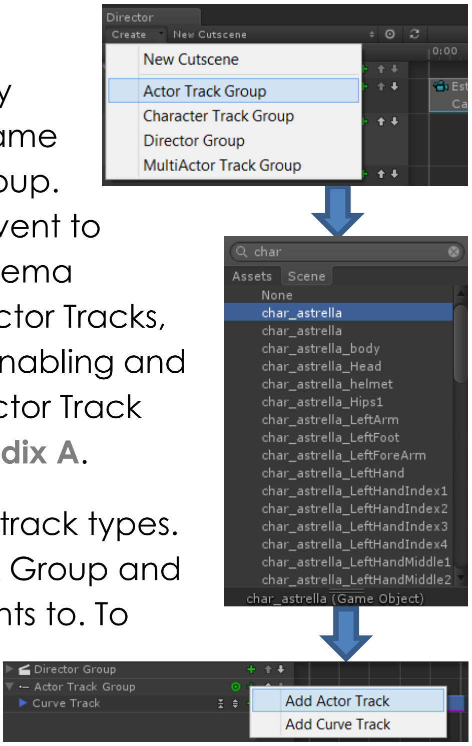

Director
Create
New Cutscene
0:00
New Cutscene
Actor Track Group
Character Track Group
Director Group
MultiActor Track Group
char
Assets
Scene
None
char_astrella
char_astrella
char_astrella_body
char_astrella_Head
char_astrella_helmet
char_astrella_Hips1
char_astrella_LeftArm
char_astrella_LeftFoot
char_astrella_LeftForeArm
char_astrella_LeftHand
char_astrella_LeftHandIndex1
char_astrella_LeftHandIndex2
char_astrella_LeftHandIndex3
char_astrella_LeftHandIndex4
char_astrella_LeftHandMiddle1
char_astrella_LeftHandMiddle2
char_astrella (Game Object)
Director Group
Actor Track Group
Curve Track
Add Actor Track
Add Curve Track

Figure 61: Adding Actor Tracks

Actor tracks are identical to Global Tracks in how they behave. However, Actor tracks will only affect the Game Object that has been assigned to the Actor Track Group. Actor tracks work well when you want to trigger an event to happen to a Game Object at an exact moment. Cinema Director contains a very extensive events library for Actor Tracks, including Legacy and Mecanim Animators, Physics, Enabling and Disabling Game Objects, and more. For a full list of Actor Track Events and a description of what they do, see **Appendix A**.

Creating an Actor Track is identical to creating other track types. For this example, we will create a second Actor Track Group and assign an object in the scene that we can apply events to. To create a new Actor Track Group, follow **Creating Actor Track Groups** above.

For this example, we are going to assign the "**char_astrella**" Game Object to our new Actor Track Group using the red target icon ◎ . Once applied, click the red plus icon ➕ and select **Add Actor Track**.

Creating an Actor Track Event

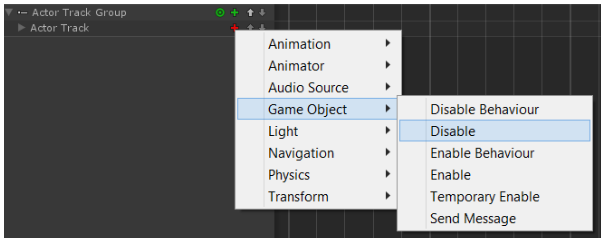

Actor Track Group
Actor Track
Animation
Animator
Audio Source
Game Object
Light
Navigation
Physics
Transform
Disable Behaviour
Disable
Enable Behaviour
Enable
Temporary Enable
Send Message

Figure 62: Adding Actor Track Events

Almost all events that can be applied to a Game Object using an Actor Track are triggers. In this example, we are going to disable a Game Object, to make the object disappear when the cutscene hits that moment in time. To do this, select the red plus icon + beside the Actor Track name and select **Game Object > Disable** from the flyout menu. Once selected, a new, large keyframe will appear on the Actor Track called "Disable".

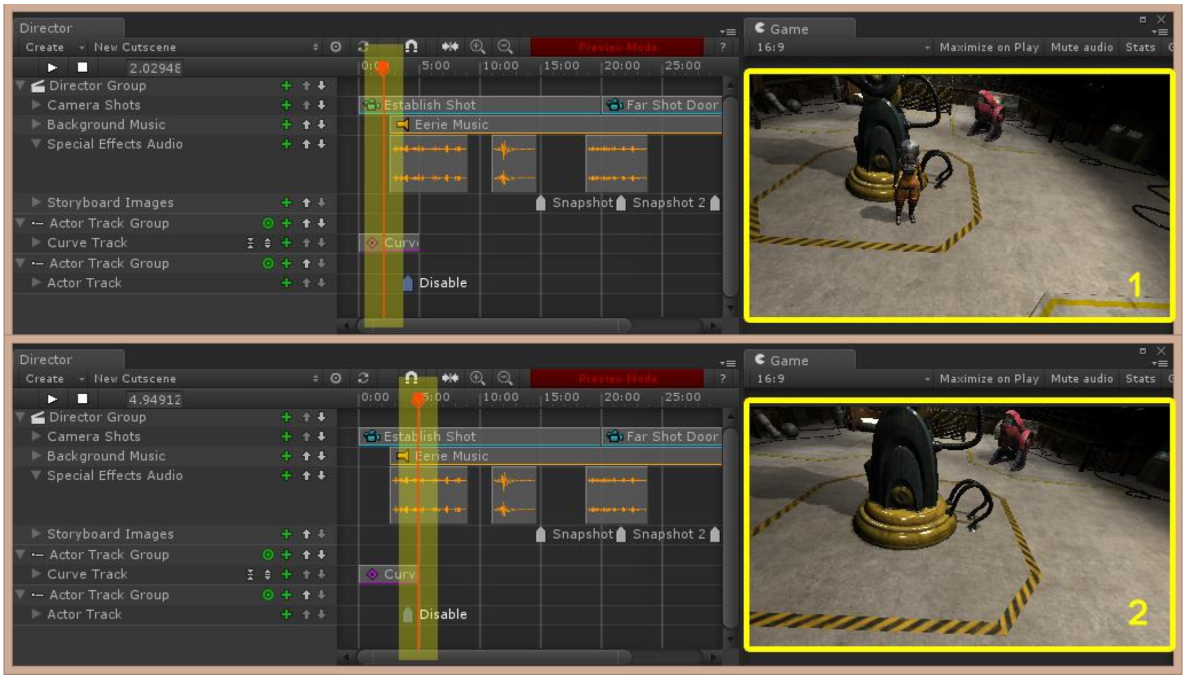

Director
Create
New Cutscene
2.02948
Director Group
Camera Shots
Background Music
Special Effects Audio
Storyboard Images
Actor Track Group
Curve Track
Actor Track Group
Actor Track
Establish Shot
Far Shot Door
Eerie Music
Snapshot
Snapshot 2
Curve
Disable
Game
16:9
Maximize on Play
Mute audio
Stats
1
4.94912
2

Figure 63: Disabling a Game Object

We would like the Astrella character to disappear as soon as the camera zooms in on her. To do this, click the Actor Track Event called "Disable" and drag it to a position on the timeline that closely matches the end of the Establish Cam shot. Remember, you can always right-click on the actor track to change the name, or you can rename the Actor Track Event in the Inspector when you click on it. See **Figure 63** above.

Creating MultiActor Track Groups

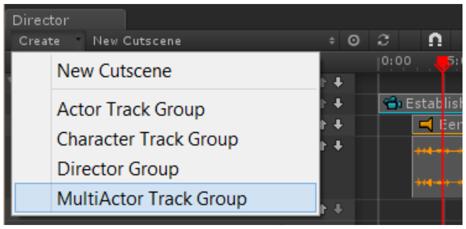
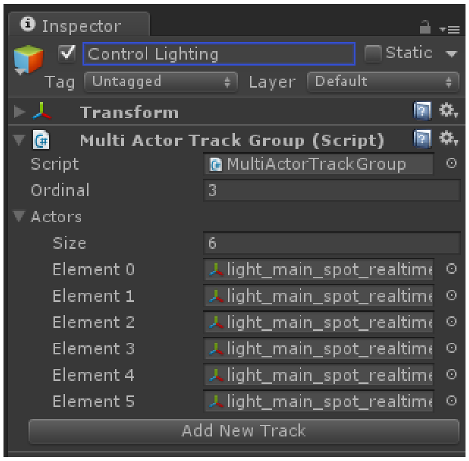

Director
Create
New Cutscene
0:00
Establis
New Cutscene
Actor Track Group
Character Track Group
Director Group
MultiActor Track Group

Figure 64: Adding MultiActor Track Group

MultiActor Track Groups are represented by the ☰ icon, and work almost the same way as Actor Track Groups, the difference being that they allow you to control multiple game objects at one time. Very useful when applying physics events or controlling lighting in your Unity Scene. To create a MultiActor Track Group, under the **Groups** pulldown select **Add > MultiActor Track Group**. As with Actor Tracks, MultiActor tracks contain both Curve Tracks and Actor Tracks. We will now select the Game Objects we want to control, and assign them to a Curve Track.

Assigning Game Objects to MultiActor Track Group

To assign the multiple Game Objects you would like to control, you must access the Unity Inspector. To do this, click the MultiActor Track Group name. In the Unity Inspector, you will select the number of Game Objects (known as Elements to Unity) you would like to control. To do this, change the number beside the **Actors > Size** field from 0 to your desired number. For this example, we are going to select six actors, which will be Unity Light Game Objects that we are going to control with a curve track. **Figure 65** shows the Game Objects we have selected from the scene, by clicking on the target button beside each element number and selecting the Game Object from the Unity Selection Dialogue box. You can also select elements by dragging and dropping Objects from the scene Hierarchy to the Element selection box. We have renamed the MultiActor Track Group "Control Lighting".


Inspector
Static
Transform
Multi Actor Track Group (Script)
Actors
Add New Track

☑ Control Lighting
Tag Untagged
Layer Default
Script MultiActorTrackGroup
Ordinal 3
Size 6
Element 0 light_main_spot_realtim
Element 1 light_main_spot_realtim
Element 2 light_main_spot_realtim
Element 3 light_main_spot_realtim
Element 4 light_main_spot_realtim
Element 5 light_main_spot_realtim

Figure 65: Assigning Actors for MultiActor Track Group

Creating MultiActor Curve Tracks

Click the red plus icon ➕ beside the MultiActor Track Group name. You will then be given the choice to create either a Curve Track or an Actor Track. Selecting a Curve Track will add an empty curve track. Click the red plus icon in the new curve track to create a new **Curve Clip**. For this example, we will select a **Float** curve type, which is the same as saying "value". To set the MultiActor Curve Clip type, select the curve clip event, and then change the Property Type in the Unity Inspector to **Float**. We are choosing this curve type because we will be controlling the intensity property of the lights we have selected.

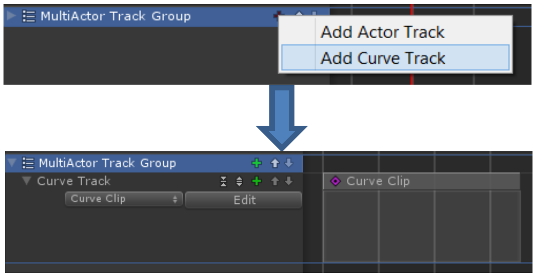
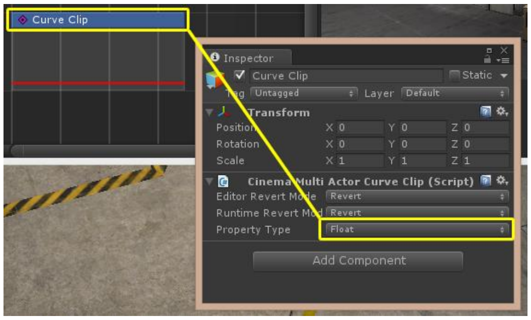


Figure 66: Adding Curve Tracks



Curve Clip
Static
Tag Untagged
Layer Default
Position X 0 Y 0 Z 0
Rotation X 0 Y 0 Z 0
Scale X 1 Y 1 Z 1
Cinema Multi Actor Curve Clip (Script)
Editor Revert Mode Revert
Runtime Revert Mode Revert
Property Type Float

Figure 67: Set MultiActor Curve Type

For a complete list of Unity curves and how they behave, see their official documentation at:

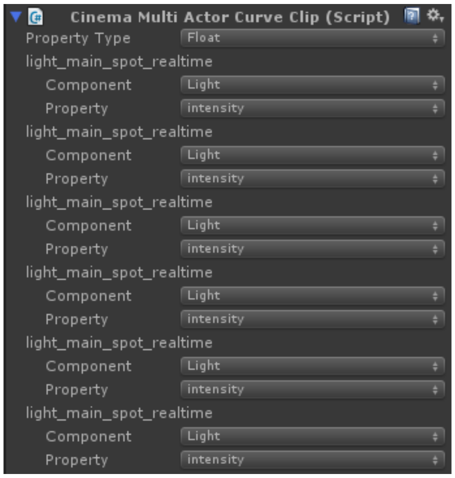
http://docs.unity3d.com/430/Documentation/Manual/UsingAnimCurves.html

Configuring MultiActor Curve Tracks

Once the curve type has been selected, once again select the new Curve Clip. This will display configuration options available in the Unity Inspector. This will allow you to individually control each Unity Game Object.

Component allows you to select if you want to either transform (move) the Game Object with the curve track, or have the curve track modify a specific Game Object property.

Property will expose all available properties that you can configure for the selected Game Object.



Property Type Float
light_main_spot_realtime
Component Light
Property intensity
light_main_spot_realtime
Component Light
Property intensity
light_main_spot_realtime
Component Light
Property intensity
light_main_spot_realtime
Component Light
Property intensity
light_main_spot_realtime
Component Light
Property intensity
light_main_spot_realtime
Component Light
Property intensity

Figure 68: Selecting Properties for Curve Track

In **Figure 68** we have selected Light as the component, and will be modifying the "Intensity" property, so that the lights brighten and dim over time.

Modifying MultiActor Curve Tracks

Once your curve is created, you can use the same methods described above in **Creating a Curve Track** to resize your curve, as well as add, modify and delete keyframes, etc. **Figure 69** shows the effect of the MultiActor Curve Track controlling light intensity over time. Since the curve is managing multiple game objects at one time, the overall effect of the lighting in the scene is quite dramatic.

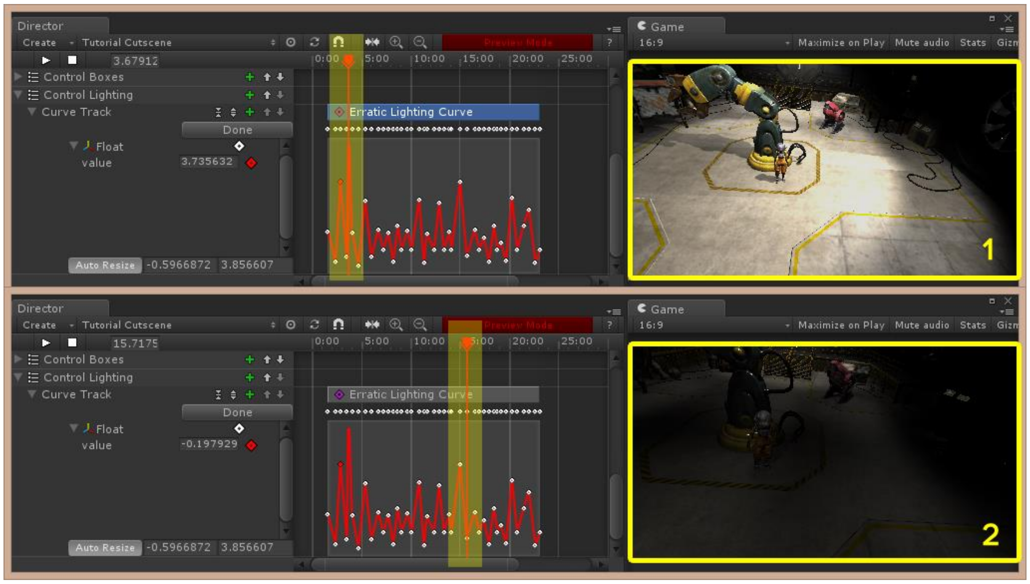
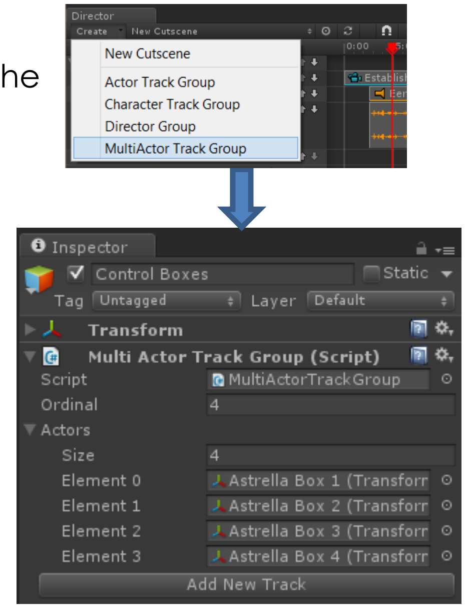

Director
Create
Tutorial Cutscene
3.67912
15.7175
Control Boxes
Control Lighting
Curve Track
Done
Float
value
3.735632
-0.197929
Erratic Lighting Curve
Auto Resize
-0.5966872
3.856607
Game
16:9
Maximize on Play
Mute audio
Stats
1
2

Figure 69: MultiActor Curve Track Controlling Light Intensity

Creating MultiActor, Actor Tracks

Actor Tracks for MultiActor Track Groups behave in the same way as they do for Actor Track Groups, difference being is that these tracks control multiple Game Objects at one time. For this example we are creating a second MultiActor Track Group, and configuring it as shown in **Figure 70**. We have selected four boxes that we have copied and moved in front of the Astrella Character. We have assigned those Game Objects to the new MultiActor Track Group and renamed the group "Control Boxes". We will then add a new Actor Track, and apply a physics force to all the boxes at one time.


Director
Create
New Cutscene
New Cutscene
Actor Track Group
Character Track Group
Director Group
MultiActor Track Group
Inspector
Static
Transform
Multi Actor Track Group (Script)
Add New Track

☑ Control Boxes
Tag Untagged
Layer Default
Script MultiActorTrackGroup
Ordinal 4
Actors
Size 4
Element 0 Astrella Box 1 (Transform
Element 1 Astrella Box 2 (Transform
Element 2 Astrella Box 3 (Transform
Element 3 Astrella Box 4 (Transform

Figure 70: Control Box Actor Track Group Configuration

To add a MultiActor Track Group Track, click the red plus icon + to the right of the MultiActor Track Group name and select **Add Actor Track**. Once the new Actor Track is created, you can then add an event to the track the same way you would for single Actor Tracks. To assign an event, click the red plus icon to + the right of the newly created Actor Track's name. You will receive the exact same list of events available as you would configuring a single Actor Track. For a full list of events and a description of how they work, see **Appendix A.**

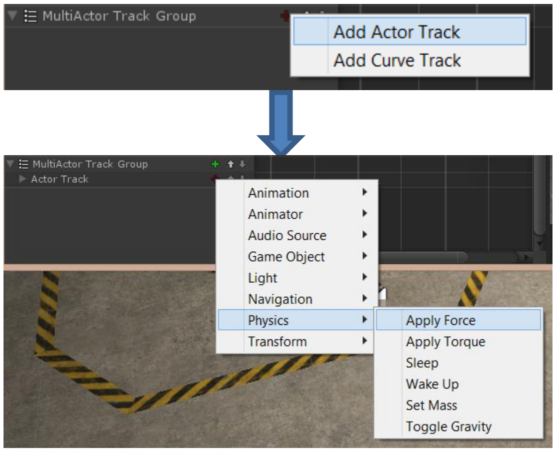

MultiActor Track Group
Add Actor Track
Add Curve Track
MultiActor Track Group
Actor Track
Animation
Animator
Audio Source
Game Object
Light
Navigation
Physics
Transform
Apply Force
Apply Torque
Sleep
Wake Up
Set Mass
Toggle Gravity

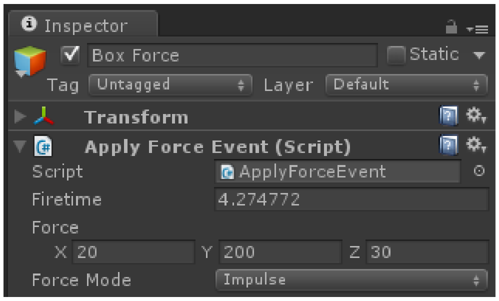
Figure 71: Adding Actor Tracks and Applying an Event

For this example, we are going to select **Physics** as our event type, and then select **Apply Force**. This should get our boxes moving quite nicely.

NOTE: In order for physics to work on a game object in Unity, you must make sure that the game object has a Rigidbody component attached to it.

Configuring MultiActor Track Event

Whenever you select an event to be triggered, you should open the event in the Unity Inspector so that you can adjust the event's settings. In the case of the Apply Force event, we can adjust the type of force, as well as how much force is applied to the X, Y and Z axis. To do this, click on the newly created event, and change the settings in the Unity Inspector. For this example, we are setting the **Force Mode** to "Impulse, and applying a **Force** of 20 units to the X-Axis, 200 units to the Y-Axis, and 30 units to the Z-Axis. We have renamed the Track Event "Box Force". See **Figure 72.**


Inspector
Transform

☑ Box Force ☐ Static
Tag Untagged Layer Default
Apply Force Event (Script)
Script ApplyForceEvent
Firetime 4.274772
Force
X 20 Y 200 Z 30
Force Mode Impulse

Figure 72: Configuring MultiActor Track Event

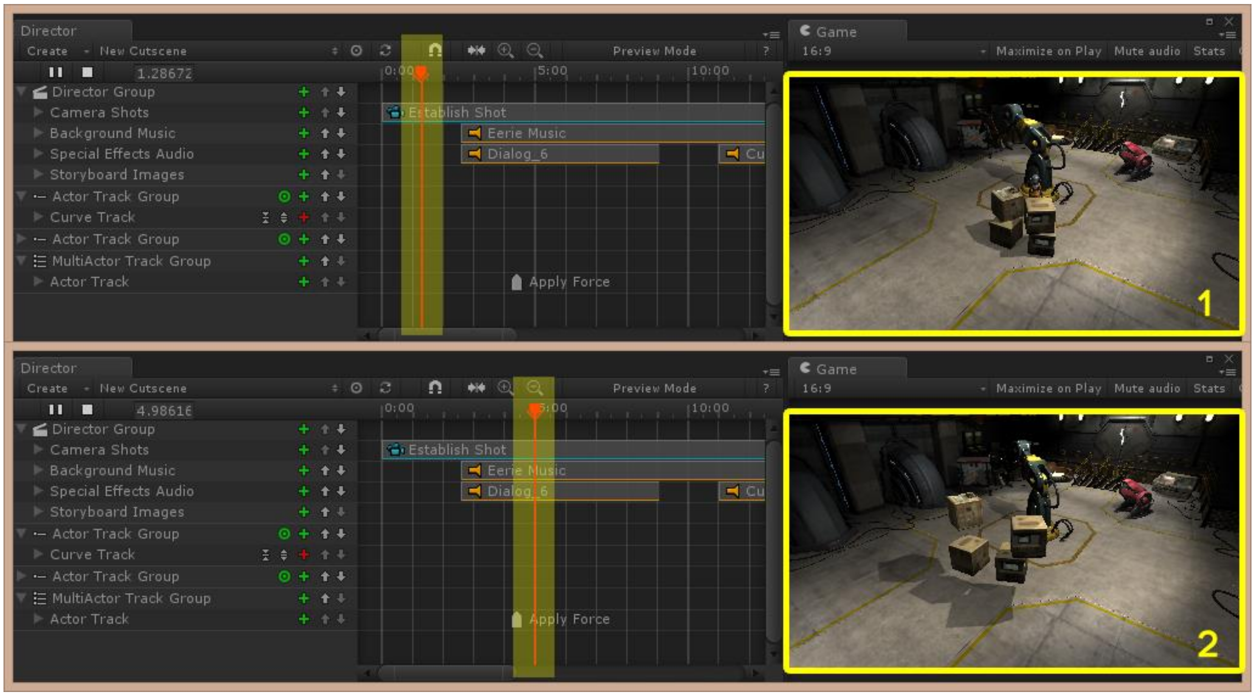

Director
Create
New Cutscene
Preview Mode
1.28672
4.98616
0:00
5:00
10:00
Director Group
Camera Shots
Background Music
Special Effects Audio
Storyboard Images
Actor Track Group
Curve Track
Actor Track Group
MultiActor Track Group
Actor Track
Establish Shot
Eerie Music
Dialog_6
Apply Force
Game
16:9
Maximize on Play
Mute audio
Stats
1
2

Figure 73: Example of the Apply Force Event being applied to multiple Game Objects

Figure 73 shows the effects of using the Apply Force event on multiple game objects. Physics events cannot be previewed in Cinema Director, and will only show when you run Unity in game mode. Notice in picture 2, the boxes flying into the air.

Creating Character Track Groups

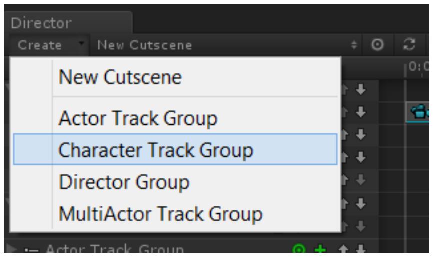

Director
Create
New Cutscene
New Cutscene
Actor Track Group
Character Track Group
Director Group
MultiActor Track Group
Actor Track Group

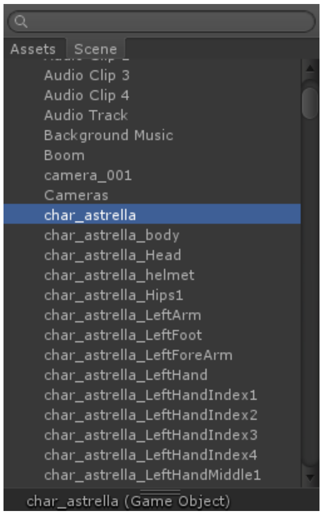
Figure 74: Adding MultiActor Track Group

Character Track Groups are represented by the icon, and work in a similar manner to Director Track Groups, the difference being that they allow you to control Mecanim animations and audio dialogue for humanoid avatars inside of your Unity project. To effectively use the Mecanim track inside of the Character Track group, it helps to have a good understanding of Mecanim for Unity and how to manage and create Animator Controllers. To familiarize yourself with Mecanim, see this Unity tutorial:

https://www.youtube.com/watch?v=Xx21y9eJq1U

Two default tracks will be generated when you create a Character Track Group, they are Mecanim Track and Dialogue Track.

Selecting a Game Object


Assets Scene

Audio Clip 3
Audio Clip 4
Audio Track
Background Music
Boom
camera_001
Cameras
char_astrella
char_astrella_body
char_astrella_Head
char_astrella_helmet
char_astrella_Hips1
char_astrella_LeftArm
char_astrella_LeftFoot
char_astrella_LeftForeArm
char_astrella_LeftHand
char_astrella_LeftHandIndex1
char_astrella_LeftHandIndex2
char_astrella_LeftHandIndex3
char_astrella_LeftHandIndex4
char_astrella_LeftHandMiddle1

char_astrella (Game Object)

Figure 75: Game Object Selection

Before working with the Mecanim and Dialogue tracks, you should first select a Game Object in Unity that the Character Track Group will control. To do this, click the red target icon ◎ located beside the Actor Track Group Name. The target is red when no Game Object has yet been associated with the Character Track Group. In this example, we want to control the movements of the Astrella avatar. Clicking the target icon will open a Unity Selection Window, where you can search for, and select the Unity Game Object you want to control. For this example, we are going to select the "char_astrella" Game Object as shown in Figure 43. Once selected, the target button will turn green. ◎

Working with Mecanim Tracks

When you assign an avatar to a Character Group, you need to make sure that the avatar is bring controlled by an Animator Controller in Unity. For this example, we created a simple animator controller called "Astrella". We have created two states called Idle and Run as shown in **Figure 76**.

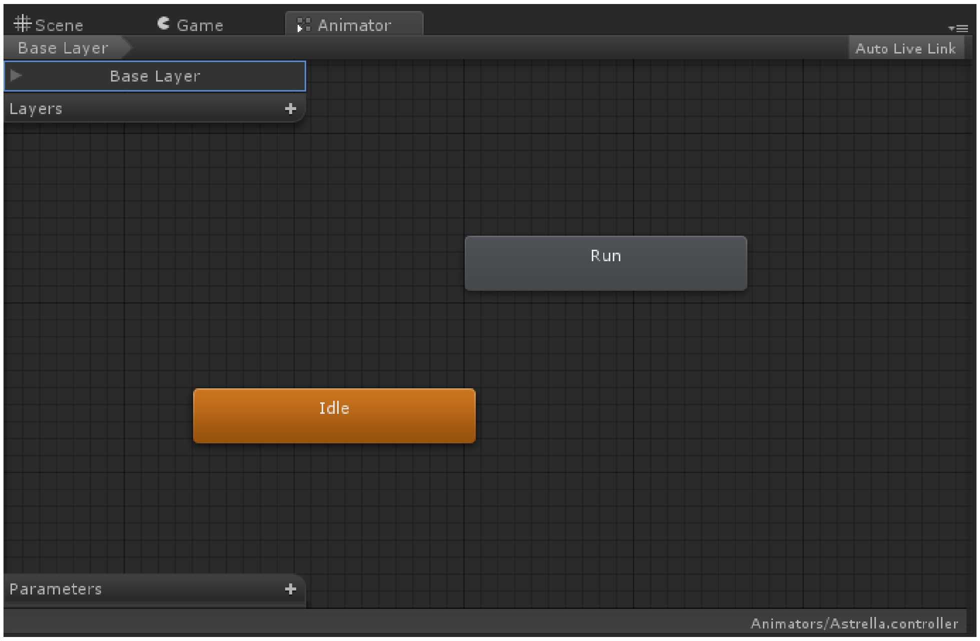
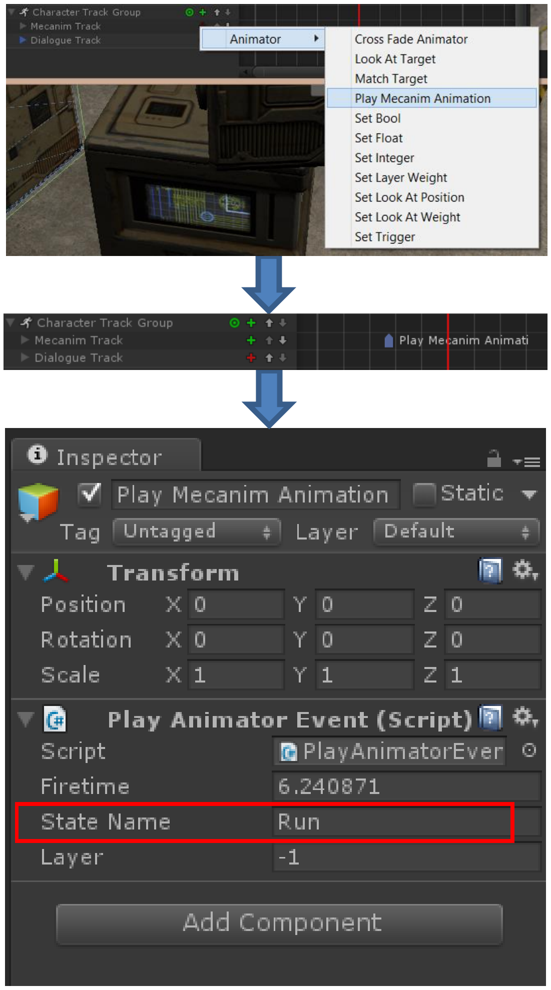


Figure 76:Animator Window in Unity

In order to preview Mecanim animations with Cinema Director, you **MUST** be on version **4.5.3 of Unity** or above. Earlier versions do not support this feature.

To trigger a your avatar to perform a Mecanim animation (after your animator controller is setup) it's as simple as clicking the red plus sign + inside the Mecanim track and selecting the event you wish to perform. In this example we will select "Play Mecanim Animation". Once selected, an event keyframe will appear in the Mecanim track inside the timeline and the red plus sign will turn green. + You can add as many events as you wish to the Mecanim track by continuing to press the green plus sign and assigning additional events. Remember, you can always rename the event by clicking on the event in the timeline then changing the name in the Unity Inspector.

In order for the Mecanim animation to play through the event, you must enter the state name that the animation is located in, inside the Animator Controller. To do this, highlight the event in the timeline, and then enter the state name inside the Unity Inspector in the **State Name** box. For this example, we are going to make the avatar run, so we will enter "Run" into the **State Name** box.


Character Track Group
Mecanim Track
Dialogue Track
Animator
Cross Fade Animator
Look At Target
Match Target
Play Mecanim Animation
Set Bool
Set Float
Set Integer
Set Layer Weight
Set Look At Position
Set Look At Weight
Set Trigger
Character Track Group
Mecanim Track
Dialogue Track
Play Mecanim Animati
Inspector
Static
Add Component

☑ Play Mecanim Animation

Tag: Untagged
Layer: Default

Transform

Position	X 0	Y 0	Z 0
Rotation	X 0	Y 0	Z 0
Scale	X 1	Y 1	Z 1

Play Animator Event (Script)

Script: PlayAnimatorEver
Firetime: 6.240871
State Name: Run
Layer: -1

Figure 77: Configuring Mecanim Events

Previewing a Mecanim Animation

To see how your animation looks, simply scrub the timeline with the scrub tool. You will now see a live preview of the animation you have applied to the character. Note that the animation applied to the default state inside the Animator Controller will begin to play automatically when you start to preview your cutscene. In this example, the avatar will start out idle. Then at the approx. 5 second mark, the avatar will begin to run at the point that even is triggered in the timeline. See **Figure 78** below.

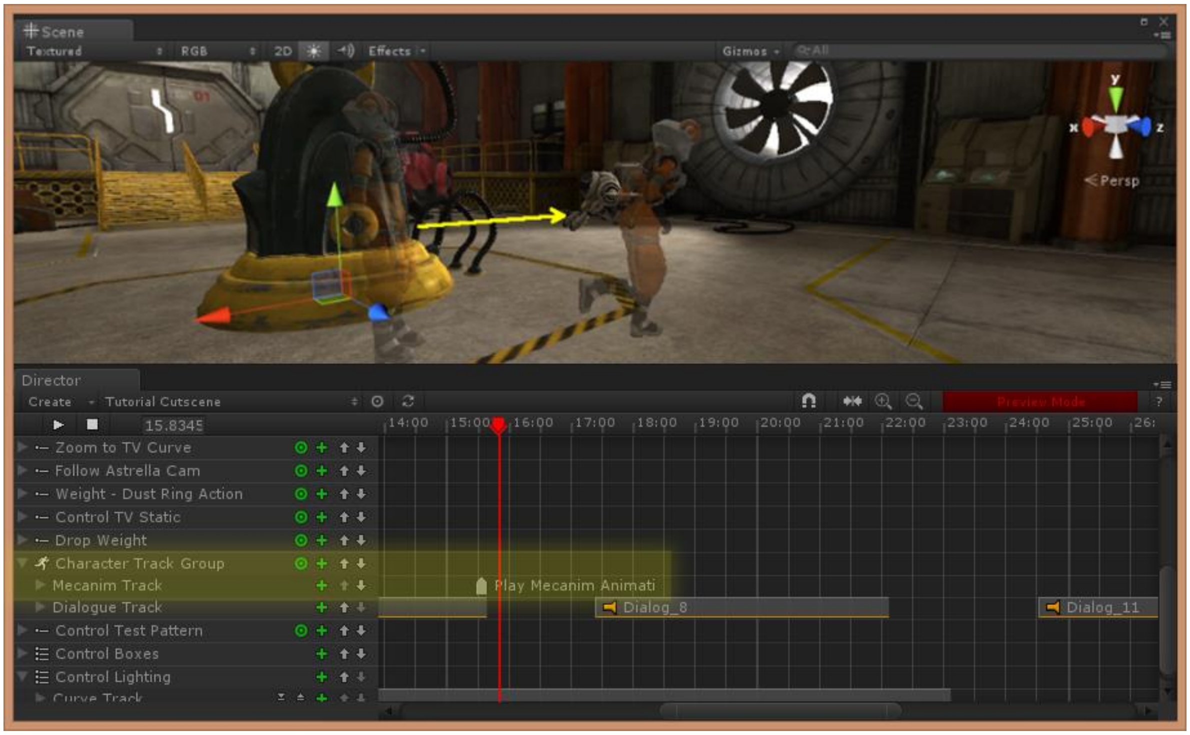

Scene
Textured
RGB
2D
Effects
Gizmos
Persp
Director
Create
Tutorial Cutscene
Preview Mode
15.8345
14:00
15:00
16:00
17:00
18:00
19:00
20:00
21:00
22:00
23:00
24:00
25:00
26:
Zoom to TV Curve
Follow Astrella Cam
Weight - Dust Ring Action
Control TV Static
Drop Weight
Character Track Group
Mecanim Track
Dialogue Track
Control Test Pattern
Control Boxes
Control Lighting
Curve Track
Play Mecanim Animati
Dialog_8
Dialog_11

Figure 78: Live Mecanim Preview

Refreshing your cutscene

Due to the nature of how Mecanim and Unity work, you will need to refresh your cutscene in order to see the updates to any additional Mecanim animations you have added to your project, or moved to different locations in the timeline. There are two ways to do this. The first option is to exit preview mode. This can be done by clicking on the preview mode button in the Director toolbar, or by hitting the stop button in the Director toolbar.

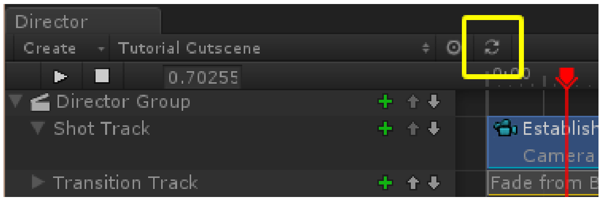

Director
Create
Tutorial Cutscene
0.70255
Director Group
Shot Track
Transition Track
Establish
Camera
Fade from B

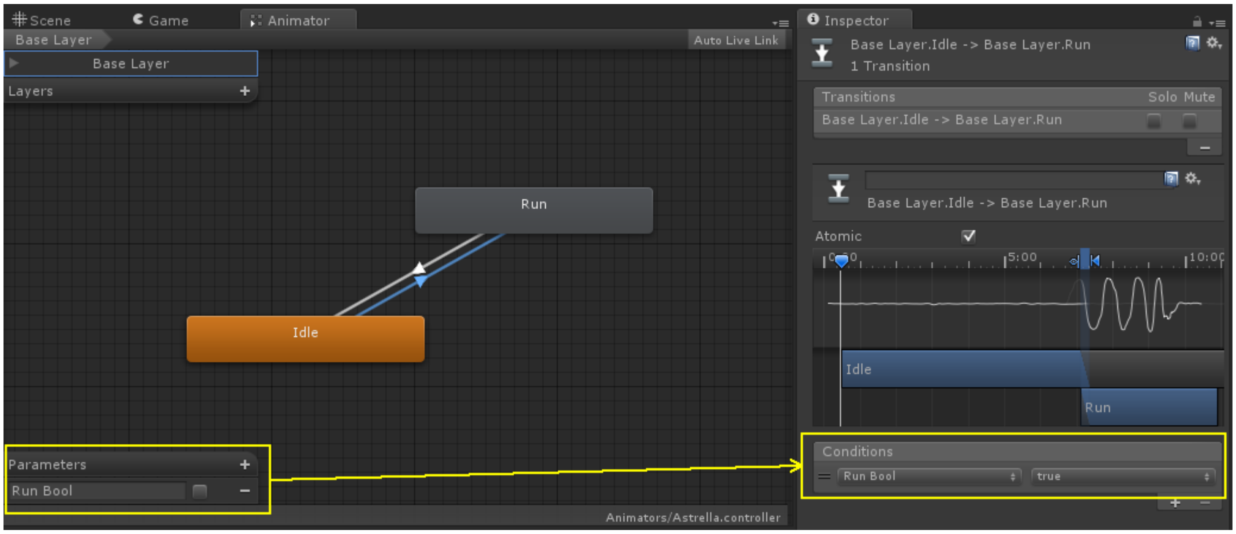
Figure 79: Live Update Button in Director

The second option is to click the refresh button. This can also be found on the director toolbar beside the cutscene name. Simply click this button after making changes to the Mecanim track to see live updates.

More advanced Mecanim options

To avoid "jumpy" transitions between Mecanim animations, it is common practice to create Parameters inside your Animator controller and attach them to transitions between states. Cinema Director allows you to access these Mecanim functions to run control these transitions.

For example, if you want Cinema Director to control transitioning between an idle and run animation, but have that animation run smoothly, you would want to setup a Bool Parameter in the Animator Controller, and then assign that bool value to a transition between the Idle and Run state. See **Figure 80** below:

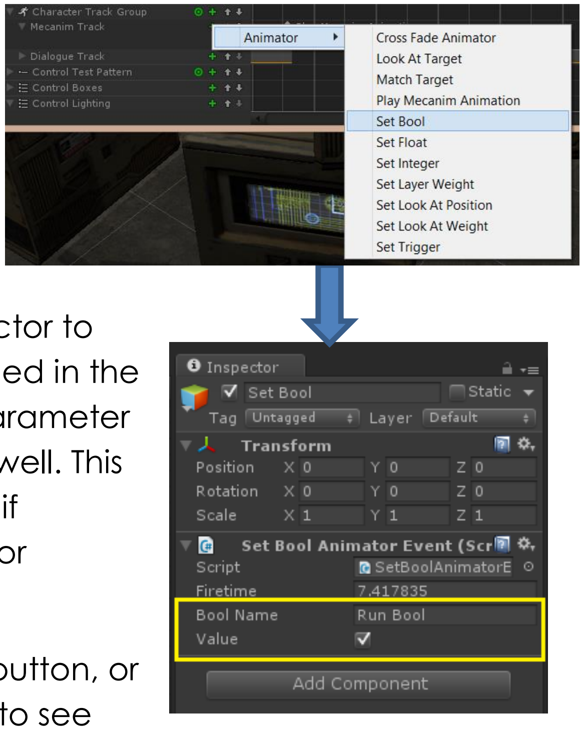

Scene
Game
Animator
Base Layer
Auto Live Link
Base Layer
Layers
Run
Idle
Parameters
Run Bool
Animators/Astrella.controller
Inspector
Base Layer.Idle -> Base Layer.Run
1 Transition
Transitions
Solo
Mute
Base Layer.Idle -> Base Layer.Run
Base Layer.Idle -> Base Layer.Run
Atomic
0:00
5:00
10:00
Idle
Run
Conditions

Run Bool true

Figure 80: Setting up Bool Parameter for Transition in Animator

Once the transition is setup the way you would like, you can then trigger that transition to happen at any time inside the director timeline. Click the plus icon in the Mecanim track and select **Animator > Set Bool**. An event keyframe will appear in the timeline. Click on the event and then change the **Bool Name** inside the Unity Inspector to match the name of the Parameter you assigned in the Animator. For this example, we named the parameter "Run Bool" and checked the "Value" box as well. This tells Cinema Director to trigger the animation if parameter value is set to "true" in the Animator Controller.

Make sure to hit the Cinema Director refresh button, or stop, and then restart preview mode in order to see your changes. You will now notice a much smoother transition from the idle state to the run state.


Character Track Group
Mecanim Track
Dialogue Track
Control Test Pattern
Control Boxes
Control Lighting
Animator
Cross Fade Animator
Look At Target
Match Target
Play Mecanim Animation
Set Bool
Set Float
Set Integer
Set Layer Weight
Set Look At Position
Set Look At Weight
Set Trigger
Inspector
Static
Transform
Set Bool Animator Event (Scr
Add Component

☑ Set Bool
Tag Untagged
Layer Default
Position X 0 Y 0 Z 0
Rotation X 0 Y 0 Z 0
Scale X 1 Y 1 Z 1
Script SetBoolAnimatorE
Firetime 7.417835
Bool Name Run Bool
Value ☑

Figure 81: Selecting Set Bool Event

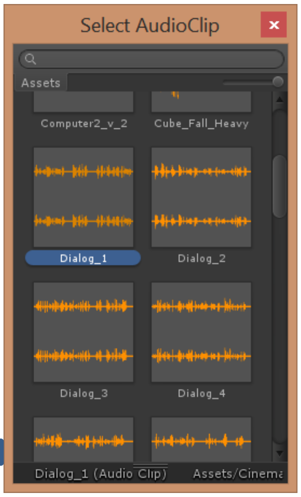
Mecanim Modes:

There are many Mecanim functions that are built into the Animator that Cinema Director can control. How you use them depends on your animation needs.

Cinema Director Animation Events	
Cross Fade Animator	Create a dynamic transition from the current state to the new given state. Select the transition duration to determine how long the two animations should be cross faded for.
Play Mecanim Animation	Plays an animation by looking up the given state name. Will not perform any transition.
Set Bool	Set the value of a bool parameter. A Boolean is a true/false value, which the animator can use to perform transitions.
Set Float	Set the value of a float parameter. A float is a decimal place value, which the animator uses to determine things like speed/direction for example.
Set Integer	Set the value of an integer (whole number) parameter.
Set Layer Weight	Sets the given layers weight. This will adjust the blending of multiple layers, when animation playback happens.
Set Look at Position	Sets the look at position. In combination with SetLookAtWeight, this will direct the characters body, head, and eyes to look towards the given position.
Set Trigger	Set a trigger parameter in the animator to active. This is similar to Set Bool, except the value is returned to false on the next frame.

Working with Dialogue tracks

Dialoge tracks work the in a similar mannar as audio tracks, and allow you to assign audio to your character in Unity. The applied audio clip will default to 3D sound, and always be attached to the character.


Select AudioClip
Assets
Computer2_v_2
Cube_Fall_Heavy
Dialog_1
Dialog_2
Dialog_3
Dialog_4
Dialog_1 (Audio Clip)
Assets/Cinema

To add an audio clip, click the red plus icon + in the audio track. You will then be promoted to select from any audio available in your project. You can also drag and drop audio from your project folder directly to the track.

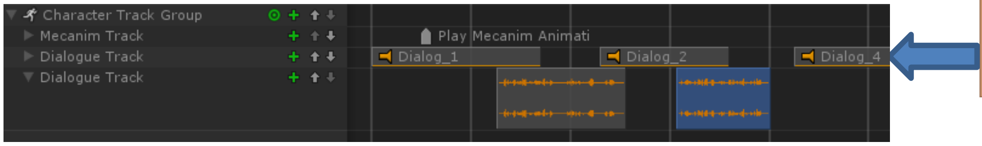

Character Track Group
Mecanim Track
Dialogue Track
Dialogue Track
Play Mecanim Animati
Dialog_1
Dialog_2
Dialog_4

Figure 82: Adding Dialogue Clips

Dialogue clips can be adjusted and repositioned in the same manner as audio clips in Cinema Director.

Adding additional tracks to the Character Track Group

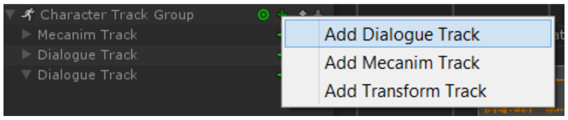

Character Track Group
Mecanim Track
Dialogue Track
Dialogue Track
Add Dialogue Track
Add Mecanim Track
Add Transform Track

Figure 83: Adding Tracks

You can have as many dialogue tracks and Mecanim tracks as you wish inside of a Character Track Group. To add additional tracks, click the green plus icon + beside the Character Track Group Name. You will then get a pulldown, prompting you to select either an additional Mecanim Track, or Dialogue Track.

Copy and Paste

You can copy and paste any item inside of the Cinema Director window. To copy an item, simply right click on that object and select "**copy**". To paste the item to a new location, move your mouse to that location, right click, and then select "**paste**". You can also perform a copy by selecting copy from Unity's "**Edit**" menu once you have an object selected. Cinema Director will not allow you to paste items to areas of the timeline that the item does not apply. For example, you cannot paste a Curve Clip into an Audio Track.

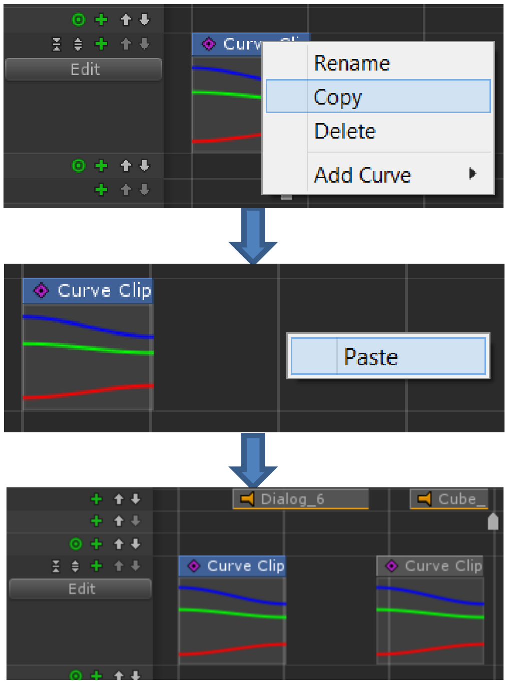

Edit
Curve Clip
Rename
Copy
Delete
Add Curve
Curve Clip
Paste
Dialog_6
Cube_
Curve Clip
Curve Clip
Edit

Figure 84: Copy and Paste Example

Selecting Items

In Director, you can select objects one at a time, or select multiple objects by holding down the CTRL key and selecting as many items as you wish. You can then delete all these items at once by hitting the delete key or right-clicking and selecting delete. You can also click and drag, to move the multiple items at one time.

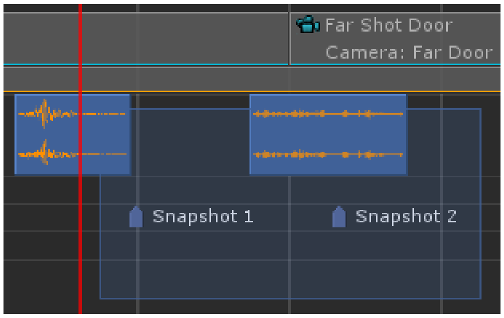

Far Shot Door
Camera: Far Door
Snapshot 1
Snapshot 2

Figure 85: Box Select Sample

Click and hold down your mouse button on any empty space on the timeline to enable **box select**. Click and drag to draw a box around as many items as you wish, and they will all become selected.

Working with Themes

Setting up the Image Effect

To further enhance the look and feel of your cutscene, Cinema Director includes many different themes that you can apply to cameras in your scene. These themes are based on Unity Pro Image effects, so you must be using **Unity Pro** for this feature.

To work with a theme, you must first import the Image Effects (Pro) package into your current project by right clicking in your project folder and selecting **Import Package > Effects**. Once Imported, we will be working with the image effect called "**ColorCorrectionLut**". You can find this effect by either typing it into the search bar for your project, or by navigating to the folder **Standard Assets > Effects > ColorCorrectionLut.**

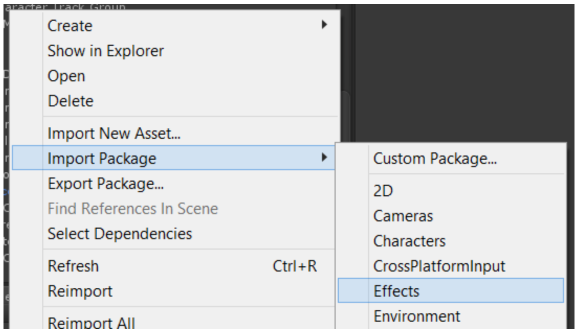

Create
Show in Explorer
Open
Delete
Import New Asset...
Import Package
Export Package...
Find References In Scene
Select Dependencies
Refresh Ctrl+R
Reimport
Reimport All
Custom Package...
2D
Cameras
Characters
CrossPlatformInput
Effects
Environment

Figure 86: Importing Image Effects

Next, select a camera in your scene. Once selected, click the **Add Component** button in the Unity Inspector. Do a search for color, and select the **Color Correction (3D Lookup Texture)**. You can also add this script by navigating to **Image Effects > Color Adjustment**. The script will then be added to your camera Game Object. You are now ready to apply Cinema Director Themes to your camera.

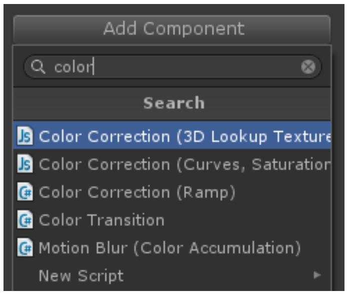

Add Component
color
Search
Color Correction (3D Lookup Texture
Color Correction (Curves, Saturation
Color Correction (Ramp)
Color Transition
Motion Blur (Color Accumulation)
New Script

Figure 87: Adding Effect to Camera Game Object

Applying the Cinema Director Theme

Cinema Director Themes are located in the project folder **Cinema Director > Prefabs > Themes > LUTs**. To apply a theme, drag the LUT file from the LUTs folder to the None (Texture2D) box in the Unity Inspector under your selected Camera Game Object. For this example, we are using the "Horror3D16" theme that gives a spooky look similar to the movie "Sin City".

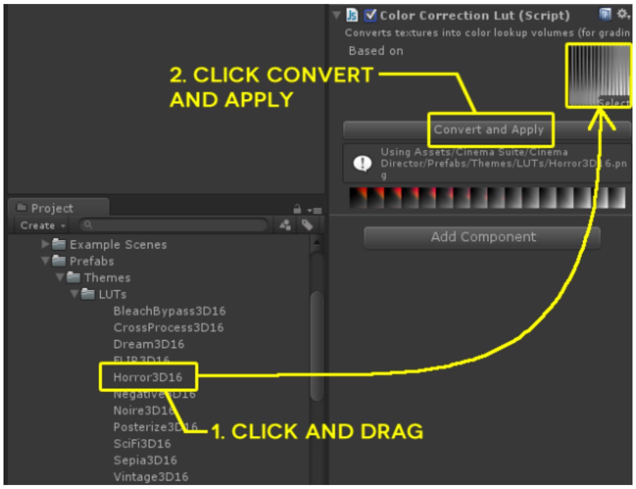

Color Correction Lut (Script)
Converts textures into color lookup volumes (for gradin
Based on
2. CLICK CONVERT AND APPLY
Select
Convert and Apply
Using Assets/Cinema Suite/Cinema Director/Prefabs/Themes/LUTs/Horror3D16.png
Add Component
Project
Create
Example Scenes
Prefabs
Themes
LUTs
BleachBypass3D16
CrossProcess3D16
Dream3D16
Horror3D16
Noire3D16
Posterize3D16
SciFi3D16
Sepia3D16
Vintage3D16
1. CLICK AND DRAG

Figure 88: Adding a theme to the Image Effect

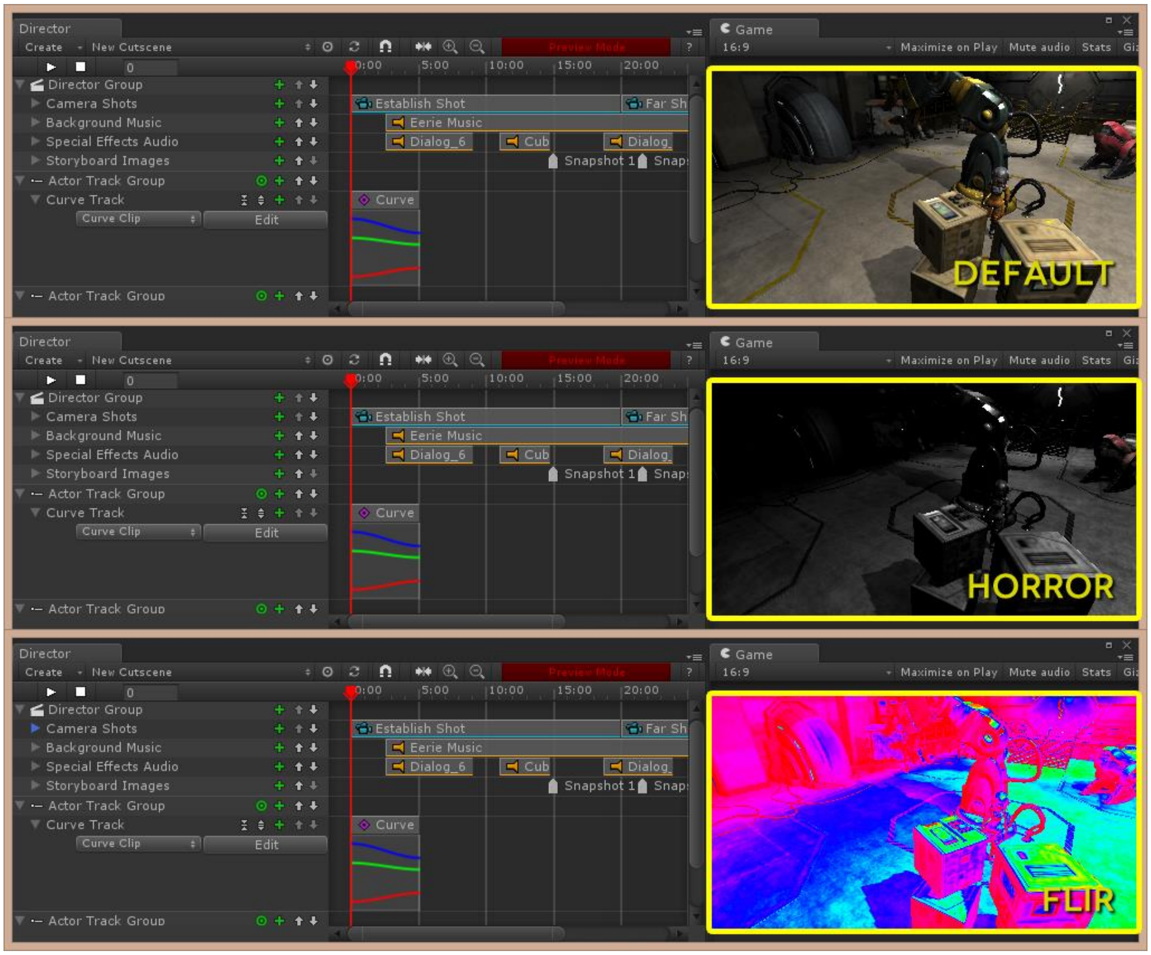


Figure 89: Example of Different Cinema Director Themes

Figure 89 shows a few of the different themes available in Cinema Director. We have included eleven themes in Cinema Director that allow the user to change the look and mood of their cutscene. Want another 60 themes for your cameras? Then check out Cinema Themes, available for FREE in the Unity Asset Store!

https://www.assetstore.unity3d.com/en/#!/content/20394

Available Themes

Current themes available in Cinema Director are as follows:

- *Bleach Bypass*
- *Cross Process*
- *Dream Sequence*
- *FLIR*
- *Horror*
- *Negative*
- *Noire (B&W)*
- *Posturize*
- *SciFi*
- *Sepia*
- *Vintage*

Conclusion

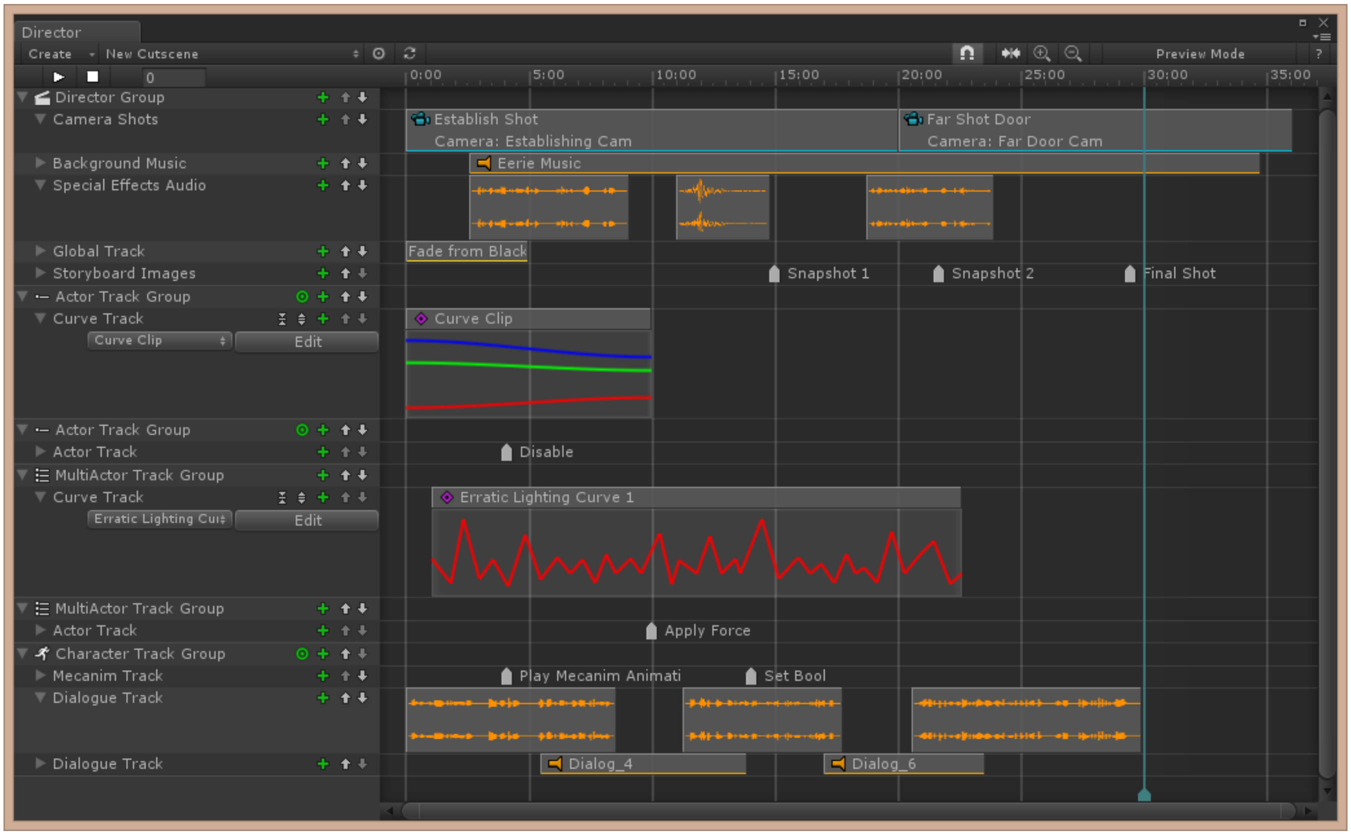

Director
Create
New Cutscene
Preview Mode
0:00
5:00
10:00
15:00
20:00
25:00
30:00
35:00
Director Group
Camera Shots
Background Music
Special Effects Audio
Global Track
Storyboard Images
Actor Track Group
Curve Track
Curve Clip
Edit
Actor Track Group
Actor Track
MultiActor Track Group
Curve Track
Erratic Lighting Cu
Edit
MultiActor Track Group
Actor Track
Character Track Group
Mecanim Track
Dialogue Track
Dialogue Track
Establish Shot
Camera: Establishing Cam
Far Shot Door
Camera: Far Door Cam
Eerie Music
Fade from Black
Snapshot 1
Snapshot 2
Final Shot
Curve Clip
Disable
Erratic Lighting Curve 1
Apply Force
Play Mecanim Animati
Set Bool
Dialog_4
Dialog_6

Figure 90: Complete Timeline for this Tutorial

Figure 90 shows a completed timeline, which covers all topics covered in the section **Using Cinema Director**. Remember that you can use the arrow icons ⬆ ⬇ on each group and each track to reorder the timeline any way you wish. You can also right-click any group or track name in Cinema Director and rename it. To maximize space on your screen, try using Cinema Director on a secondary monitor, and make use of the collapse arrows that are present in front of all the ▶ Group and Track names. This will display additional information for many track types. Options such as these allow you to keep your timeline organized, and will help to keep large projects in order.

Cinema Director also allows advanced Unity users (developers) to create their own scripts for use inside the timeline. Scripts for our events libraries are not compiled, so you can use them as an example, and begin to build your own tools to help you take even more control of Unity. Visit our forums at the following link, to see our API documentation - http://cinema-suite.com/forum/viewtopic.php?f=25&t=170.

Now get out there, and make an awesome cutscene!

Appendix A

Cinema Director includes over **SIXTY Track Events** that can be used to control the Game Objects and environment inside of Unity. Below are tables that list all available events, their type, and a description of what they do.

Global Track Events

Category	Name	Event Type	Description
GUITexture	Fade Texture	Timed	Performs a fade-in, display and fade out sequence on a given GUI Texture. One quarter of the time is spent fading in, one half displaying and the final quarter fading out.
Cutscene	Pause Cutscene	Trigger	Allows you to pause another cutscene that you have created inside the current project. Good for controlling in-game sequencing while a main cutscene is running.
	Play Cutscene	Trigger	Triggers another cutscene in your unity project to begin playing.
	Stop Cutscene	Trigger	Stops another cutscene in your unity project.
Time	Time Scale Curve	Timed	Affects Unity's time scale, slowing or speeding up the amount of time passing in the game. The scale value is affected over time by the curve provided.
	Set Time Scale	Trigger	Affects Unity's time scale, slowing or speeding up the amount of time passing in the game. This is useful for bullet time style effects.
Transitions	Colour Transition	Timed	Creates a cross fade effect between two custom colour selected in the Unity Inspector.
	Fade From Black	Timed	Creates an effect that starts with a black screen, and fades into the current scene.
	Fade From White	Timed	Creates an effect that starts with a white screen, and fades into the current scene.

	Fade To Black	Timed	Creates an effect that takes the current scene and fades it to a black screen.
	Fade To White	Timed	Creates an effect that takes the current scene and fades it to a white screen.
Utility	Mass Disabler	Trigger	Disables multiple game objects on trigger by tag or selection and re-enables them at action's end. This is useful for turning off game elements during the sequence's playback.
	Load Level	Trigger	Will load a game level that is assigned to the event through the Unity Inspector, at the selected point in time on the timeline. Requires running game mode.
	Storyboard	Trigger	Will create a screenshot in .PNG format that will be saved in an Assets > Storyboard folder of the current project. Requires running game mode.
Audio Source	Play Clip at Point	Trigger	Plays a one shot audio clip at a given point in world space.
Debug	Log Error	Trigger	Displays debug error messages in the editor console. Helpful for debugging your cutscene.
	Log Message	Trigger	Displays debug log messages in the editor console. Helpful for debugging your cutscene.
	Log Warning	Trigger	Displays debug warning messages in the editor console. Helpful for debugging your cutscene.
Game Object	Disable Game Object	Trigger	Makes a game object inactive in the current Unity Project.
	Enable Game Object	Trigger	Makes a game object active in the current Unity Project.

MultiActor/Actor Track Events

Category	Name	Event Type	Description
Animation	Play Animation	Timed	Plays a legacy animation on the actor without any blending.

	Blend Animation	Trigger	Blends the named animation with a target weight over the given time in seconds.
	Cross Fade Animation	Trigger	Fades the given animation in over the given time in seconds.
	Rewind Animation	Trigger	Rewinds the given animation.
	Sample Animation	Trigger	Samples the animation at the current state. Good for posing characters.
	Stop Animation	Trigger	Stops the playback of all animations.
Animator	Look At Target	Timed	Provide a target transform for the character to look at. Provide weights for body, head and eye look.
	Cross Fade Animator	Trigger	Create a dynamic transition between the current state and the destination animation state.
	Play Mecanim Animation	Trigger	Play a Mecanim animation by providing the animation state's name.
	Set Bool	Trigger	Sets the value of a boolean parameter.
	Set Float	Trigger	Sets the value of a float parameter.
	Set IK Position	Trigger	Sets the position of an IK goal.
	Set IK Position Weight	Trigger	Sets the position weight of an IK goal.
	Set IK Rotation	Trigger	Sets the rotation of an IK goal.
	Set IK Rotation Weight	Trigger	Sets the rotation weight of an IK goal.
	Set Interger	Trigger	Sets the value of an integer parameter.
	Set Layer Weight	Trigger	Sets the animation layer's current weight.
	Set Look At Position	Trigger	Set a look at position, causing the character to look at this new point in space.
	Set Look At Weight	Trigger	Paired with look at position, set the weights for the body, head and eye look.

	Set Target	Trigger	Sets an AvatarTarget for the current state.
	Set Trigger	Trigger	Sets a trigger parameter to active.
Audio Source	Play Audio	Trigger	Play a given audio clip at the actor's position.
	Pause Audio	Trigger	Pause the playback of an audio clip.
	Play One Shot	Trigger	Plays audio clip only once on the actor.
	Stop Audio	Trigger	Stops the playback of audio clips on the actor.
Game Object	Disable Behaviour	Trigger	Disable a specified component(s) of the Game Object.
	Disable	Trigger	Disable a Game Object that is currently enabled.
	Enable Behaviour	Trigger	Enable a specified component(s) of the Game Object.
	Enable	Trigger	Enable a Game Object that is currently disabled.
	Send Message	Trigger	For advanced users. Sends messages between Game Objects.
Light	Set Light Colour	Trigger	Controls the colour of the selected light in the Unity Project.
	Set Intensity	Trigger	Controls the intensity of the selected light in the Unity Project.
Navigation	Set Destination	Trigger	Sets the destination for a navigation component, causing the actor to navigate to the new destination.
Physics	Apply Force	Trigger	Applies a linear force to a Game Object using X, Y, Z coordinates.
	Apply Torque	Trigger	Applies a rotational force to a Game Object using X, Y, Z coordinates.
	Sleep	Trigger	Disables the updating of physics on a rigidbody.

	Wake Up	Trigger	Enables the updating of physics on a rigidbody.
	Set Mass	Trigger	Apply mass to the Game Object
	Toggle Gravity	Trigger	Turn Gravity for a Game Object on and off.
Transform	Attach Children	Trigger	Attached a given gameobject as a child of the actor in the scene hierarchy.
	Detach Children	Trigger	Detaches a given gameobject as a child of the actor in the scene hierarchy.
	Set Parent	Trigger	Set a new parent for the actor in the scene hierarchy.
	Set Position	Trigger	Sets a new transformation position.

Community

We want to hear from you! Quite simply, without you, none of what we develop would be possible. We always want to hear from our community, whether it is for feedback, sharing ideas, adding features, and providing additional help. Here's how you can find us:

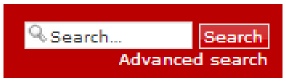
Website: www.cinema-suite.com
Facebook: /CinemaSuiteInc
Twitter: /CinemaSuiteInc
YouTube: /CinemaSuiteInc
Blog: www.cinema-suite.com/blog
Email: support@cinema-suite.com
Forums: www.cinema-suite.com/forum

Help and Support

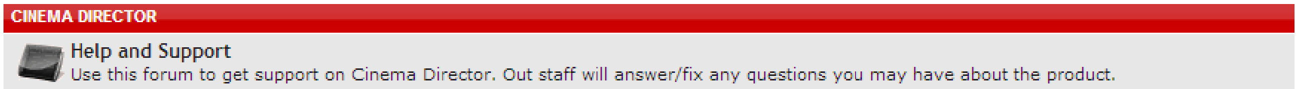
Cinema Suite Forums:

The fastest way to obtain support for Cinema Director is to visit the Cinema Suite forums. Our forums can be found at www.cinema-suite.com/forum.

Before creating a post, please make sure to search the forum using the search bar located in the upper right area of our forum site.



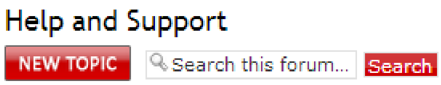
If you cannot find what you are looking for, please create a new forum topic under the Cinema Director category "**Help and Support**" by clicking on the text below.


CINEMA DIRECTOR

Help and Support

Use this forum to get support on Cinema Director. Out staff will answer/fix any questions you may have about the product.

Once inside the Help and Support area for Cinema Director, create a new topic by selecting the new topic button in the upper left area of the page.



We constantly monitor our forums for new support inquiries.

Email:

If you fail to receive an answer in the forums, you may also email our support team directly. Our email address is support@cinema-suite.com.

Please note the following when emailing support for quickest service:

1. We need 2-3 days to process email support requests, due to volume.
2. For fastest service, please provide your Unity Asset Store Purchase invoice number for our product.
3. Put invoice number in subject field, with brief description of problem.
4. In the body of the email, please provide as much of the following as possible, for quickest service:
    - Detailed explanation of the problem. Provide screenshots if possible.
    - What version of Unity?
    - What version of Cinema Director? (Go to **Window>Cinema Suite>About** to obtain version number).
    - Sequence of events leading to issue.

Licensing:

Licensing for Cinema Director is governed by the Unity Asset Store End User License Agreement (EULA). For more information about the EULA, please click here for more information.

Thank you

Without you, what we do would not be possible. We sincerely thank you for purchasing Cinema Director, and allowing us to create software that helps the community do their work quicker, easier, and hopefully with a bit more fun.

Cinema Suite Inc. would like to extend a special thank you to the Canada Media Fund for making Cinema Director possible.

CMF FMC

www.cmf-fmc.ca