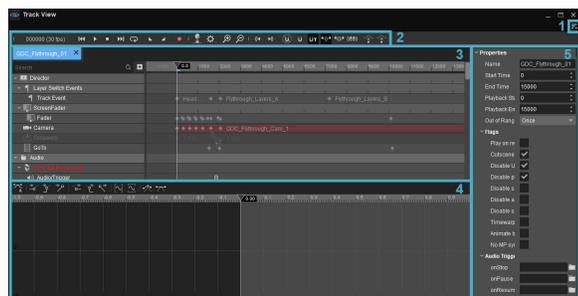


The Track View is the embedded Sandbox cut-scene editing tool for making interactive movie sequences with time-dependent control over objects and events in CRYENGINE.

Creating cinematic cut-scenes and scripted events are both possible, allowing you to sequence objects, animations, and sounds in a scene that can be triggered in the game and, played either as a detached cut-scene from the third person perspective, or from the first person perspective of the player while playing the game.

Sequences created with the Track View can be triggered in game with a specific [Flow Graph](#) node. Different properties enable sequences to range from passive in game scenarios up to fully uncoupled cut-scenes.



The Track View consists of the following panels and buttons:

1. Menu

The Menu can be accessed via the  icon on the top-right corner of the Track View. When clicked, it reveals the following sub-menus:

- 1. Menu
 - File
 - Edit
 - View
 - Playback
 - Tools
 - Toolbars
 - Help
- 2. Toolbar
- 3. Dopesheet
 - Nodes and Tracks List
 - Dopesheet Events
- 4. Curve Editor
 - Curve Editor Toolbar
- 5. Properties
- Animating an Entity Component in Track View

File

Option	Description
New...	Creates a new sequence.
Open...	Opens an existing sequence.
Close	Closes the current sequence.
Delete Sequence...	Lets you delete an entire sequence.
Import...	Imports a sequence.
Export...	Exports a sequence.

Edit

Option	Description
Undo	Undoes the last action.
Redo	Redoes the last undone action.
Copy	Copies the current selection.
Cut	Cuts the current selection.
Paste	Pastes a copied or cut selection.
Delete	Deletes the current selection.
Duplicate	Duplicates the current selection.
New Event	Creates a new event that can trigger an action within the Flow Graph.
Show Events	Shows the existing events and lets you add new ones via the Add button.

View

Option	Description
Zoom In	Zooms in on the dopesheet.
Zoom Out	Zooms out on the dopesheet.
Show Dopesheet	Shows/hides the dopesheet.
Show Curve Editor	Shows/hides the Curve Editor.
Sequence Properties	Displays the global properties of a sequence in the Track View specific properties panel.
Link Timelines	Links the timelines on the dopesheet and the Curve Editor together.
Show Key Text	Shows/hides the names of the keys in the dopesheet.
Sync Selection	When enabled, syncs the selection between the Track View dopesheet and the Level Explorer and Properties in the main Sandbox UI.
Invert Scrubber Snapper Behavior	Inverts the snapper behavior of the scrubber; e.g. when this it's active, snapping works as intended instead of being deactivated when the ALT key is pressed and vice versa. For more information about the snapping behaviors, please see the Toolbar section below.
Units	
Ticks	Uses ticks as units in the dopesheet.
Time	Uses time in the dopesheet.
Timecode	Uses timecode in the dopesheet.
Frames	Uses frames as units in the dopesheet.

Playback

Option	Description
Play	Plays the sequence.
Pause	Pauses the sequence.
Stop	Stops the sequence.
Loop	Loops the sequence.
Set Playback Start	Sets the start time for sequence playback and places a marker.
Set Playback End	Sets the end time for sequence playback and places a marker.
Reset Start/End	Removes all start and end time markers you have set.
Record	Allows for recording of live keyframes within a timeline in your sequence.
Playback Speed	Changes the playback speed.
Framerate	Changes the framerate.

Tools

Option	Description
Render Sequence	Opens the render dialog, allowing the user to render the sequence.

Create Light Animation Set	<p>Creates a new sequence called _LightAnimationSet. In this sequence, users can add a Light Animation node to the Events and Nodes List to animate the light.</p> <p>In order to use this node properly, you need the Legacy Light entity which can only be found in GameSDK project. For more information, please visit the Marketplace.</p>
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Toolbars

Option	Description				
Customize...	Opens the toolbar customization window allowing users to customize existing toolbars, and/or create new toolbars within the Track View.				
Lock Toolbars	When disabled, the positions of toolbars and spacers within the Track View can be changed by drag and drop.				
Spacers	<p>The following options allow users to use spacers in positioning their toolbars.</p> <table border="1"> <tr> <td>Insert Expanding Spacer</td> <td>Adds an expanding spacer to the toolbar layout; an expanding spacer pushes all elements situated at its ends to the edge of a panel.</td> </tr> <tr> <td>Insert Fixed Spacer</td> <td>Adds a fixed spacer, which has a fixed size of one icon.</td> </tr> </table> <p>The Spacers menu options are only available when Toolbars Lock Toolbars is disabled.</p>	Insert Expanding Spacer	Adds an expanding spacer to the toolbar layout; an expanding spacer pushes all elements situated at its ends to the edge of a panel.	Insert Fixed Spacer	Adds a fixed spacer, which has a fixed size of one icon.
Insert Expanding Spacer	Adds an expanding spacer to the toolbar layout; an expanding spacer pushes all elements situated at its ends to the edge of a panel.				
Insert Fixed Spacer	Adds a fixed spacer, which has a fixed size of one icon.				
Toolbars	Lists all default and custom toolbars created for the Track View, allowing you to select which toolbar you'd like to hide or display.				

When a tool has a toolbar, whether this is a default one or a custom one, the options above are also available when right-clicking in the toolbar area (only when a toolbar is already displayed).

Help

Opens the documentation page for this tool.

2. Toolbar

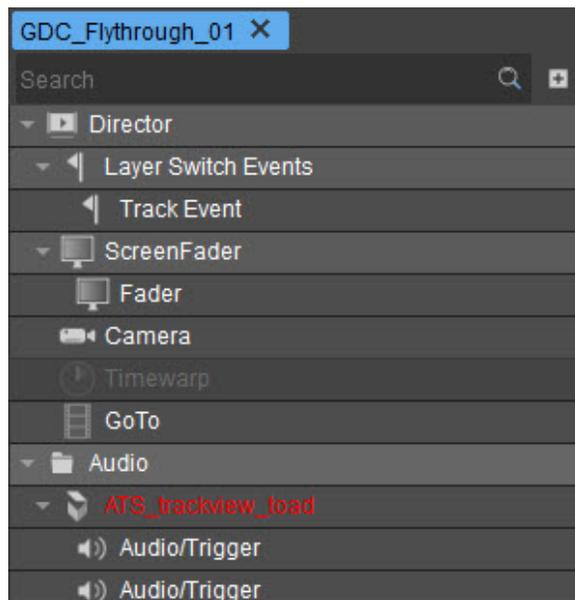
Button	Name	Description
	Unit display	Shows where on the timeline you currently are.
	Go to start of sequence	Skips to the start of the sequence.
	Play	Plays the sequence.
	Stop	Stops the sequence.
	Go to end of sequence	Skips to the end of the sequence.
	Loop	Loops the sequence.
	Set Playback Start	Sets the start time for sequence playback and places a marker.

	Set Playback End	Sets the end time for sequence playback and places a marker.
	Record	Allows for recording of live keyframes within a timeline in your sequence.
	Add Selected Entities	<p>Adds the selected entity object(s) to the currently active animation sequence in Track View. After objects are added, they can be animated and their properties can be changed as the playback continues.</p> <p>Right-clicking this button will reveal a list where users can select tracks as default. This makes sure that the selected Tracks are automatically assigned to the entity when it's added to the list via the Add Selected Entities button.</p>
	Sequence Properties	User can edit the currently loaded sequence properties.
	Zoom In	Zooms in on the dopesheet.
	Zoom Out	Zooms in on the dopesheet.
	Go To Previous Key	Skips to the previous key of the currently selected track in both Dope Sheet Editor and Curve Editor.
	Go To Next Key	Skips to the next key of the currently selected track in both Dope Sheet Editor and Curve Editor.
	No Snapping	Disables snapping. Alternatively, holding Alt
	Key Snapping	Jumps to next or previous key when dragging playback progress indicator line.
	Time Snapping	Jumps to next or previous unit of time when dragging playback progress indicator line.
	Move Keys	Allows you to move the keys individually on the Dopesheet.
	Slide Keys	Allows you to slide all the keys on the same row to the left and right.
	Scale Keys	Allows you to scale keys relative to the cursor position.
	Sync Selected Tracks to Base Position	Syncs the selected tracks to the base position.
	Sync Selected Tracks from Base Position	Syncs the selected tracks from the base position.

3. Dopesheet

The dopesheet is the primary track view window. It allows you to add and remove nodes as well as create edit and remove animation keys.

Nodes and Tracks List



On the left is a list showing the Nodes and Tracks contained within your track view sequence.

The search bar allows you to quickly find a specific node.



The  button that is found next to the search bar allows you to add new Nodes. These Nodes can also be found on the list's **Context Menu**.

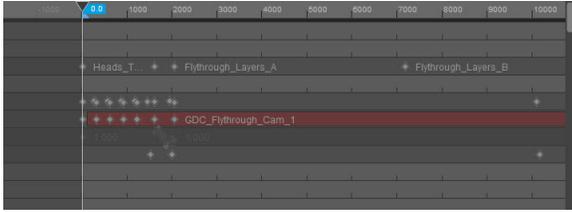
Context Menu

Depending on the place that has been right-clicked, the context menu displays different options.

Option	Description
Add Selected Entity	When an entity is selected in the Viewport, this option puts the selected entity in the Nodes and Tracks list as an Entity Node. This option can also be used to add multiple entities at the same time to the list.
Add Node	Adds the selected Node to the list.
Delete	Deletes the selected Node or Track from the list. Multiple Nodes and Tracks can be Deleted at the same time.
Enable	Enables the Node. Multiple Nodes and Tracks can be Enabled at the same time.
Disable	Disables the Node. Multiple Nodes and Tracks can be Disabled at the same time.
Select in Viewport	Available when an Entity Node is right-clicked. It selects the respective entity in the Viewport.
Add Track	Available when a Node is right-clicked. It displays the Tracks that can be assigned to the Node. These Tracks can be used to manipulate the entity in the cutscene/sequence and they can vary based on the Node type that has been right-clicked. Same Track can be assigned to multiple Nodes. To do so, select the Nodes and right-click one to choose a Track from the Add Track list.
Copy Keys	Copies the keys that has been assigned to the Node/Track.
Copy Selected Keys	Copies only the selected keys that has been assigned to the Node/Track.

Import Node	Imports the Node.
Export Node	Exports a Node.

Dopesheet Events



Each track view node has a track on which keys can be assigned. These new keys then can be edited or removed.

Double-clicking on a track line adds a new key on clicked position. Keys can be box selected and once selected, Delete will remove these keys.

Each key contains it's own unique values which are used to store things like position, rotation.

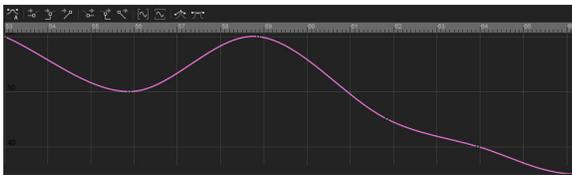
Rotating an object while the **Record** button is active creates new position keys on the Dopesheet.

Context Menu

When you right-click anywhere on this section, a context menu with the following options will appear:

Option	Description
Move Selection to Cursor	Aligns currently selected keys to the cursor.
Duplicate	Duplicates selected keys.
Delete	Deletes selected keys.
Play/Pause	Plays/pauses the sequence.
Previous Frame	Skips to the previous frame in the sequence.
Next Frame	Skips to the next frame in the sequence.
Jump to Previous Event	Jumps to the previous event in the sequence.
Jump to Next Event	Jumps to the next event in the sequence.
Copy	Copies what you have selected.
Cut	Cuts what you have selected.
Paste	Pastes what you have previously copied or cut to the position of the cursor.

4. Curve Editor



The Curve Editor is a powerful tool that lets you alter the splines between keyframes. It can be used to tweak certain properties much in the same way that users can in the [Environment Editor \(Old as of 26/2\)](#). It shows the progression of the values for the selected node/track over the course of a specific time and how gradually they change. It is especially useful when time-based periodic changes are envisioned for a sequence in the Track View.

Simply select a track in the dopesheet and the curve will be visible in the curve editor.

There are a few functions that can be useful to know when using the Track View's Curve Editor:

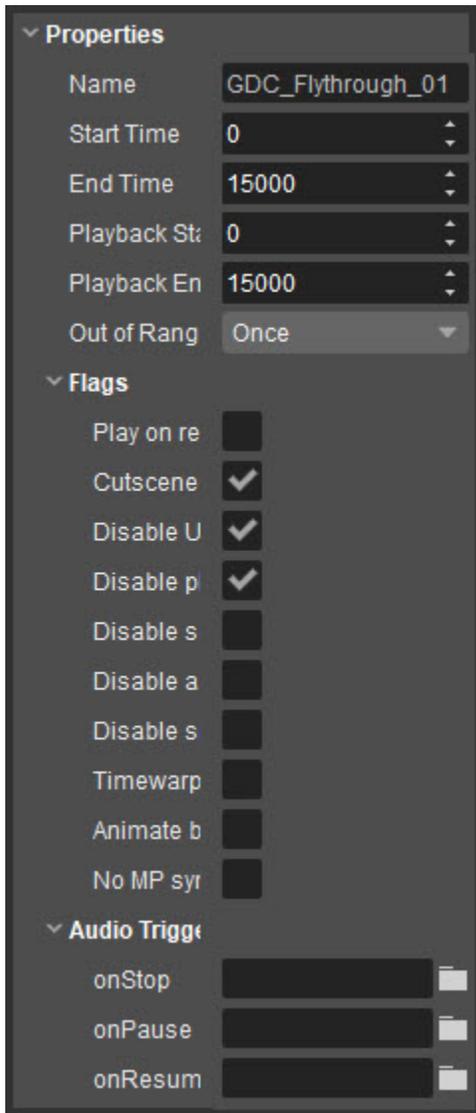
- You can add keys by double clicking, and remove keys by selecting them and hitting **Delete**;
- Clicking and dragging the handles around each key allow you to adjust the in/out tangents of each key.

Curve Editor Toolbar

The Curve Editor toolbar can be used to modify the curves and to give them certain properties.

Button	Name	Description
	Set in and out tangents to auto	Sets the tangents for the selected key(s) (the squares in the graph) to auto.
	Set in tangent to zero	Sets the in tangent for the selected key(s) (the squares in the graph) to zero.
	Set in tangent to step	Sets the in tangent for the selected key(s) (the squares in the graph) to step.
	Set in tangent to linear	Sets the in tangent for the selected key(s) (the squares in the graph) to linear.
	Set out tangent to zero	Sets the out tangent for the selected key(s) (the squares in the graph) to zero.
	Set out tangent to step	Sets the out tangent for the selected key(s) (the squares in the graph) to step.
	Set out tangent to linear	Sets the out tangent for the selected key(s) (the squares in the graph) to linear.
	Fit curves horizontally	Fits the graph into the graph window horizontally.
	Fit curves vertically	Fits the graph into the graph window vertically.
	Break tangents	Breaks the tangents for the selected key(s).
	Unify tangents	Sets the tangents for the selected key(s) to auto.

5. Properties



On this panel, you will see a number of properties. Which properties you see depends on which key you have selected on the Dopesheet Events panel.

For instance, if a position or rotation key is selected, the properties that are related to tangents for animation will appear. However, if an event key is selected, the properties related to which event it will use and what value that event should have will be displayed on the Properties panel.

Below, you can see the common properties that can be displayed by choosing a sequence's name above the Dopesheet Nodes and Tracks List. Some of these options appear when a specific key on the Dopesheet or the Curve Editor is selected.

Property	Description
Name	Name of the selected element.
Disabled	Allows you to disable the selected track view node.
Start Time	Time at which the track view sequence starts.
End Time	Time at which the track view sequence ends.
Playback Start Time	Time at which the playback loop will start.
Playback End Time	Time at which the playback loop will end.

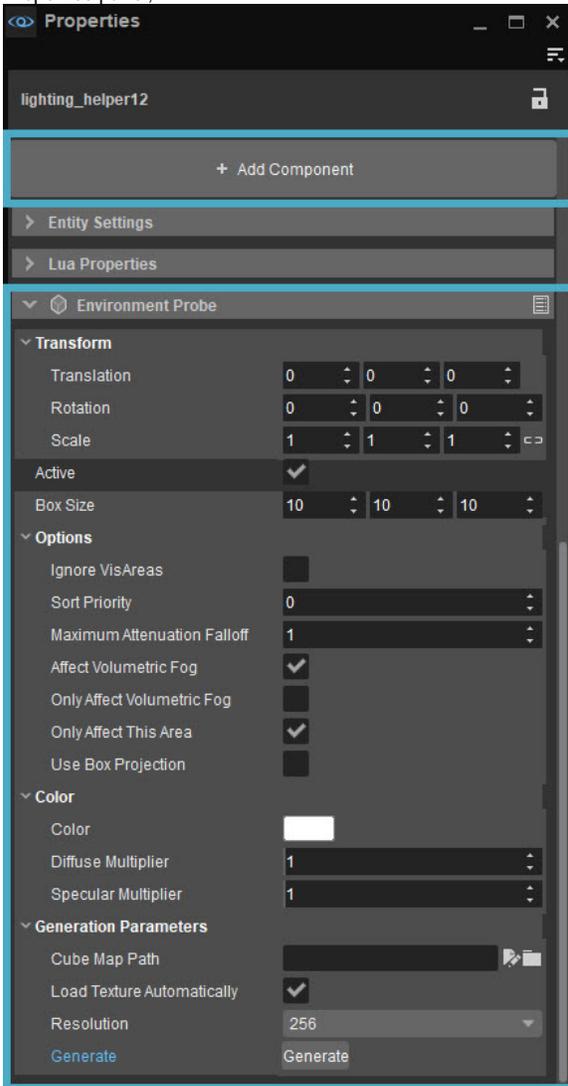
Out of Range	<ul style="list-style-type: none"> • Once - Only play this track view sequence once. • Loop - Loops the track view sequence once the end time is reached. • Constant - Track view animation will continue after the track view is out of range. For example any moving objects will continue to move/rotate until they receive another input (e.g. from track view or Flow Graph).
Time	Time of the currently selected node.
Value	The value of the currently selected node.
Break Tangents	Sets the tangents for the selected key(s) to auto.
Incoming tangent type	<p>Lets you change the incoming tangent to one of the following types:</p> <ul style="list-style-type: none"> • Smooth • Custom • Zero • Step • Linear
Outgoing tangent type	<p>Lets you change the outgoing tangent to one of the following types:</p> <ul style="list-style-type: none"> • Smooth • Custom • Zero • Step • Linear
Flags	
Play on reset	Sequence plays automatically when a level is started or player is dead and respawns.
Cutscene sequence	<ul style="list-style-type: none"> - Enables the Cut-Scene Toggles. - Enables skipping. - Helps with the transition to camera-control.
Disable UI	Completely disables any UI elements.
Disable player	Disable player when in game mode.
Disable seeking	Disables the Jump to Time function in the Animations:PlaySequence node in Flow Graph.
Disable aborting	Prevents the player from skipping the sequence.
Disable speed changes	Disables the Play Speed function in the Animations:PlaySequence node in Flow Graph.
Timewarpi ng in fixed time step	Enables Time Warping in fixed step. This is useful if you're using the t_fixedstep command to lock the framerate. This allows you to alter this command to influence slow /fast motion.
Animate before game logic	Force track view to take priority over game logic. Can be useful if certain track view animations aren't updating fast enough.
No MP Synchroniz ation	Track view is not synchronized during multiplayer gameplay.
Audio Trigger	
onStop	Triggers an audio effect on Stop.
onPause	Triggers an audio effect on Pause.
onResume	Triggers an audio effect on Resume.

Animating an Entity Component in Track View

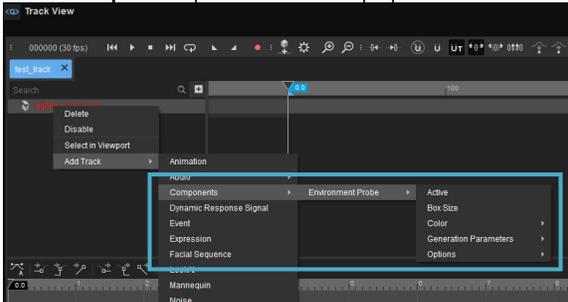
Components that are previously added to an entity via the **Add Component** button on the Properties panel can be animated in Track View. Unlike older entities, this is not something component authors need to opt-in to, meaning it happens automatically.

In order to animate an Entity Component in Track View;

1. Add an entity into the scene and add a component to it via the **Add Component** button on the Properties panel;



2. After the component is added, right-click it on the Nodes and Tracks List and follow the **Add Track Components** path to animate its properties in Track View;



Only certain component types can be introduced to the Events and Tracks List and these are limited to **Numbers (float, int), 3D Vector, Rotation, Bool, Color and Angle**.

For more information about entity components, please refer to the [Entity Components](#) page.