

Overview

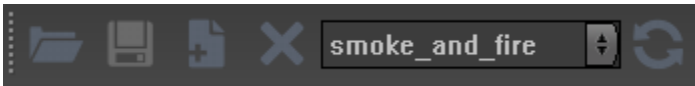
The Particle Editor can be found in the **Database View -> Particles** tab. You can use the Particle Editor to create particle effects and tweak their parameters, but also manage and store them.

In order to use a particle effect you can either drag and drop an effect into the perspective view or you assign the effect to a selected particle entity. This entity determines the basic location, angle, scale, and or link information with other entities.

For more information on particle parameters that are available in the Particle Editor, see [Particle Editor Params](#). For advanced techniques, please see [Particle Editor Advanced Techniques](#).

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Properties



Function	Description
Load Library	Open the browser and pick up the particle library you want to open.
Save Modified Libraries	Save On-Memory Libraries to the disk. This button saves whole libraries on memory if there are any changes, not only the current one.
Add Library	Add new library. New library is remaining until close the editor. If you want to keep it, use Save Modified Libraries before you close the editor.
Remove Library	Remove current library. A warning will pop up. It doesn't remove the library file from the disc, just remove current library from on-memory library list. If you want to redo the edit of current library without restarting editor, then you can remove library at once and open it again.
Library Selector	Select the current library from on-memory library list.
Reload Library	Reload current library. A warning will pop up. If you want to redo the edit of current library without restarting editor, then you can reload library.



Function	Description
Add New Item	Add a new effect, by default a child of the selected effect or group. New Particle Name window will pop up, to set group name and item name
Clone Library Item	Clone current item and all of sub items to a new effect.
Remove Item	Remove current item. A warning will pop up. It doesn't change the actual library file on disc, just remove item from on-memory current library.
Assign Item to Selected Objects	Assign current item to the selected items on the scene. Only work when you selecting a top node of the each item in the Item View .
Get Material From Selection	Sort material from selected item on the scene, and make it current on the particle editor. Only work when selected item correctly has a particle parameter.
Reload Item	The button name is Reload Item, but its reload current library currently. A warning will pop up. If you want to redo the edit of current library without restarting editor, then you can reload library.



Function	Description
Undo	Removes last change.
Redo	Removes the last undo.
Copy	Copies all the settings for the currently selected entry to the clip board.
Paste	Writes any entry data from the clip board to the current entry.



Function	Description
Enable/Disable All Sub Effects	DEPRECATED - Enables or Disables all sub effects from the selected (sub-) effect.

Editing Concepts

Base Parameters

Besides the input of the base value, most numeric parameters can be randomized and varied through extra values. They allow random variation and evolution over particle and/or emitter lifetime.

To access the variation controls, click on the expand (+) widget next to the value. When closed, this widget is colored if any variation values are non-default.

A variable parameter can have the following components:

- **Base value:** This is also the maximum value the parameter can be (any variations only reduce this value).
- **Var Random:** This is the maximum fractional amount that the Base value will randomly reduce by

Color Parameters

The Color parameter works a little differently.

- **Random Var** is a percentage value that varies the Base Color, separately in each component.
- **Life Curves** are color curves that multiply the Base Color. Thus, they don't show the resultant color directly (unless the base color is white). They are edited with a color gradient control.
- **Adding a point:** Double-click the bottom of the control.
- **Moving a point in time:** Click a point and drag it around.
- **Editing a point's color:** Double-click the existing point.
- **Changing a point's tangents:** Right-click the point to toggle the tangents between continuous and non-continuous.
- **Deleting a point:** Select the point and press **Delete**.

Child Effects

An effect can have any number of child effects, created and shown in the Item View as nested sub-effects. They can be nested to any level. There are 2 kinds of child effects:

- **Regular Child Effects** behave just like separate effects, except they are spawned with and attached to their parent effect. Each child effect has its own independent lifetime, etc. This allows you to create an overall effect that consists of several parts.
- **Second-Generation Child Effects** are effects that are attached to the individual **particles** of the parent effect. That is, a separate emitter is spawned for **each** particle of the parent effect, and those emitters move with their parent particles. This allows you to create much more complex effects. You can nest second-generation effects multiple times, creating 3rd-or-more generation effects. Be careful, however, since the number of particles created is equal to the **product** of the child effect Count and the parent effect Count.

Particle Effect Creation Workflow

Prepare a Library

Like many other elements in CRYENGINE, particle effect data is saved in a library file (xml). The default folder it located: `GameSDK\Libs\Particles`.

All of the particles for your game should be stored in this folder, organized into different types of particles, such as "smoke_and_fire" or "explosions" or "vehicle_fx", etc.

The first thing you need to do is make a new library, and save it in the above folder. After this, add your new **Groups** or **Items** into it.

Group and Item

Every particle effects are belonging to **Group**. At first, you have to make new group to add new **Item** on your library.

Apply Texture/Materials and Edit Parameters

After you apply your texture (and/or materials) to the new particle, you can then start [tweaking parameters](#).

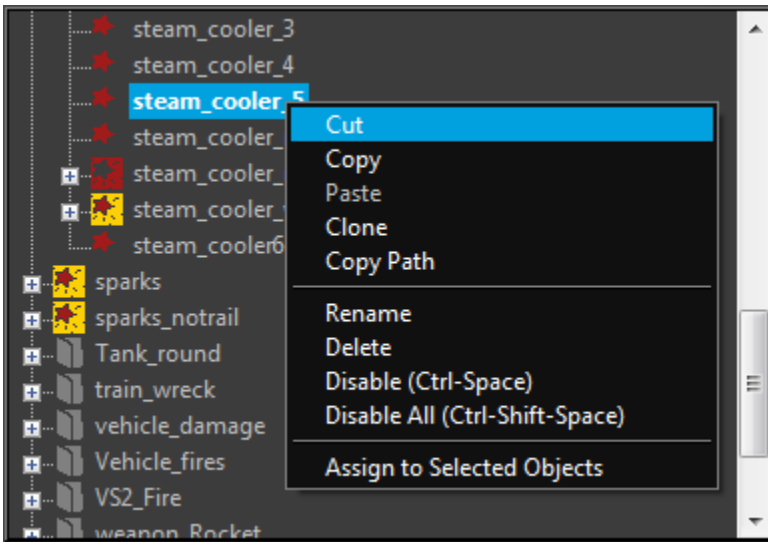
Implement into Game

Finally, implement the particle effect into the game. You can now do things like put the emitter in your scene and link it to an asset, or control it by [Flow Graph](#), or [Track View](#).

You can also setup a [Material Effect](#) to define a custom impact effect, or make a full screen effect through Flow Graph and implement it into the particle effect.

Item View

In the Item view you can access and organize your particle effects.



Right-Click Menu

Function	Description
Cut	Cut current item and all of sub items, and then put it to the clip board.
Copy	Copy current item and all of sub items, and then put it to the clip board.
Paste	Paste items on clip board to the selected item.
Clone	Clone current item and all of sub items to a new effect, by default a sibling of the current one.
Copy Path	Copy the path of the effect to the clipboard so that it can be pasted.
Rename	Rename current item.
Delete	Delete current item and all of sub items.
Enable/Disable	Enables or Disables (depending on current status) current item.
Enable/Disable All	Enables or Disables (depending on current status) current item and all of its sub items.
Assign To Selected Objects	Assign current item to the selected items on the scene. Only work when you selecting a top node of the each item in the Item View.

Preview Window

Positioned at the bottom left of the Particle Editor window. This can be useful for a quick preview of particles, but ill-advised to try and edit particles from.



Note that the Preview Window will position the camera automatically to capture the particle in its entirety. This means if the particle has a large bounding box it will zoom the camera out far to fit it all on screen. Use the Left Mouse button to pan the camera and the Mouse Wheel to control zoom levels.

Tool Tips

As you hover over the different parameters inside the Particle Editor, you can see the tool tips at the bottom of the Particle Editor. If you have the Particle Editor spread over two columns, the tip is displayed under the left column.

