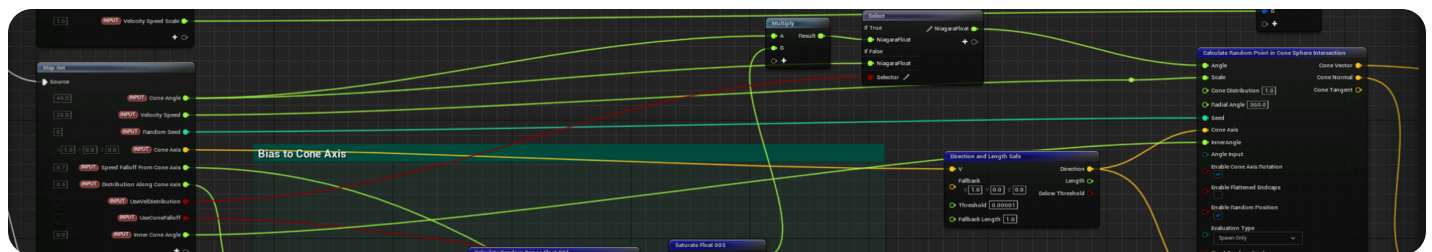


- Developer
- / Documentation
- / Unreal Engine ▾
- / Unreal Engine 5.4 Documentation
- / Creating Visual Effects
- / Niagara Reference
- / Niagara Script Editor Reference

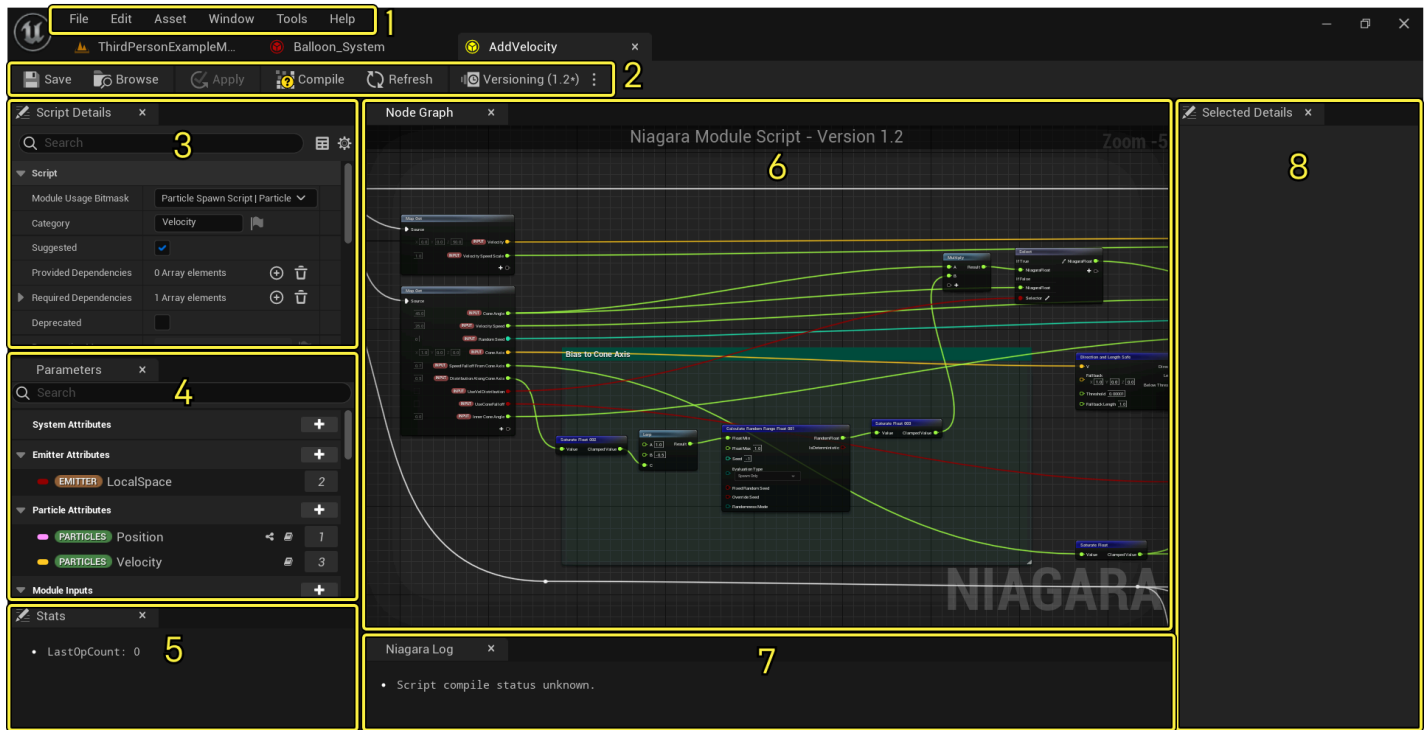
Niagara Script Editor Reference

This page describes the user interface (UI) of the Niagara Script Editor.



Overview

You can use the **Niagara Script Editor** to create new modules, dynamic inputs, or other scripts to use in Niagara systems and emitters. You can open the Script Editor by double-clicking in the header of any module. This document describes the user interface (UI) of the Script Editor, broken down into the following parts.



Click image for full size.

1. Menu Bar
2. Toolbar
3. Script Details Panel
4. Parameters Panel
5. Stats Panel
6. Node Graph
7. Niagara Message Log Panel
8. Selected Details Panel

Menu Bar



The tables below only describe commands that apply to the Niagara Editor itself; there may be additional commands displayed in those menus that open asset editors or other parts of the Unreal Editor.

File

Command	Description
Save	Saves the current emitter.
Save As	Saves the current emitter under a different name.
Open Asset	Displays a window to select other assets.
Save All	Saves all assets and levels in this project.
Choose Files to Save	Displays a dialog with options for saving assets and levels.
Connect to Source Control	Displays a dialog where you can connect to source control, allowing source control functions to be performed on content.

Edit

Command	Description
Undo	Undoes the last action.
Redo	Redoes an action that was undone.
Undo History	Displays a dialog listing all undo actions.

Asset

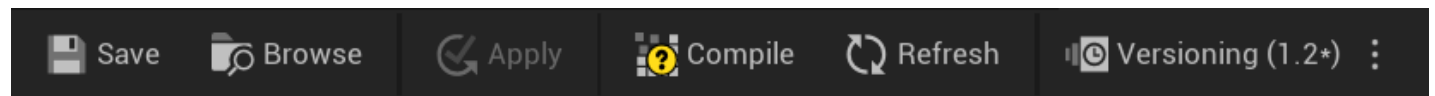
Command	Description
Find in Content Browser	Switches to most recently used Content Browser, and selects the current asset in that Content Browser.

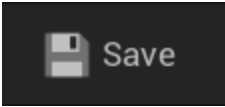
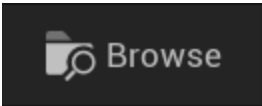
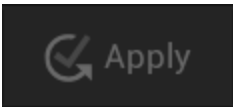
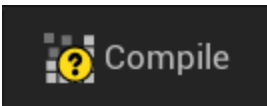
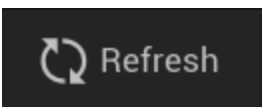
Command	Description
Reference Viewer	Displays a dialog that shows all of the current asset's references.
Size Map	Displays an interactive map showing the approximate size of the asset and everything it references.
Audit Assets	Opens the Asset Audit UI and displays information about the selected assets.
Shader Cook Statistics	Displays statistics for the shader cook process.

Window

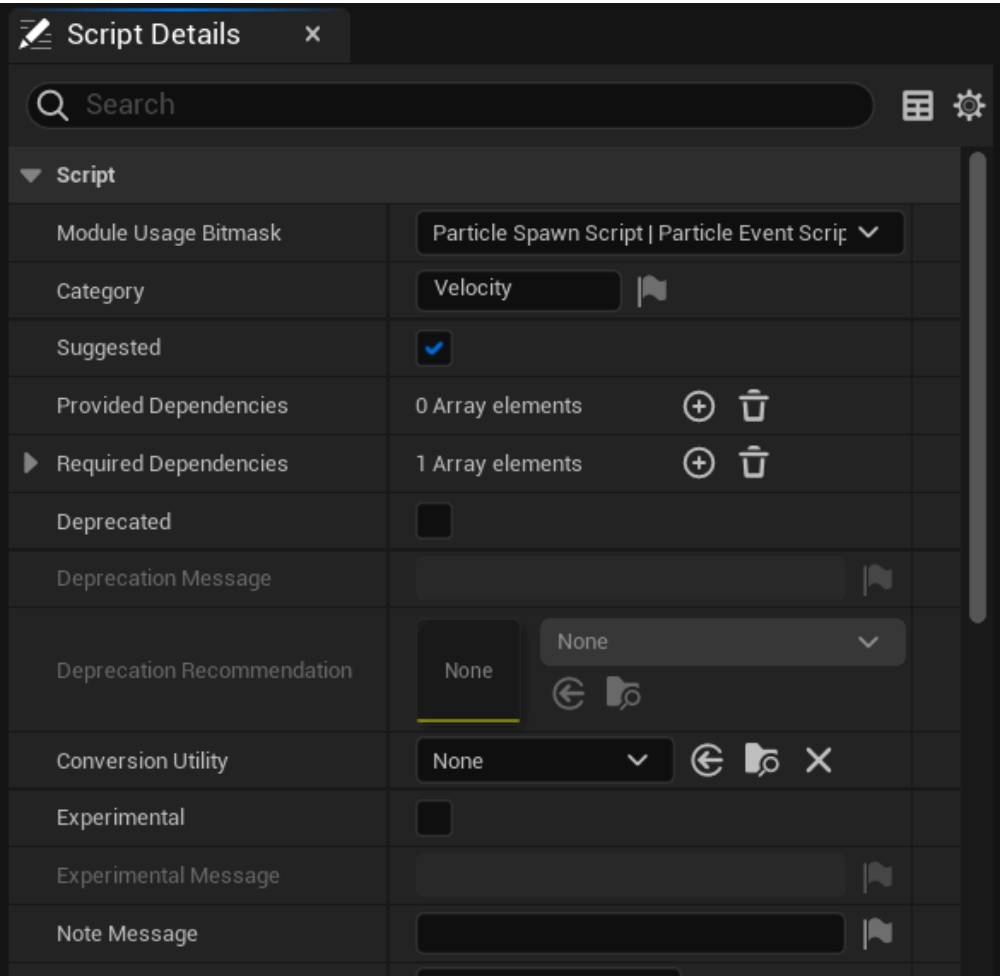
Command	Description
Toolbar	Shows or hides the Toolbar.
Node Graph	Shows or hides the Node Graph.
Script Details	Shows or hides the Script Details panel.
Selected Details	Shows or hides the Selected Details panel.
System Details	Shows or hides the System Details panel.
Parameters	Shows or hides the Parameters panel.
Stats	Shows or hides the Stats panel.
Niagara Message Log	Shows or hides the Niagara Message Log panel.

Toolbar



Tool Name	Description
Save 	Saves the current script.
Browse 	Switches to the most recent Content Browser and selects the current Asset.
Apply 	Applies unsaved changes to the current Asset.
Compile 	Compiles all changes made to the script.
Refresh 	Refreshes panels to correctly depict dependencies.

Script Details Panel



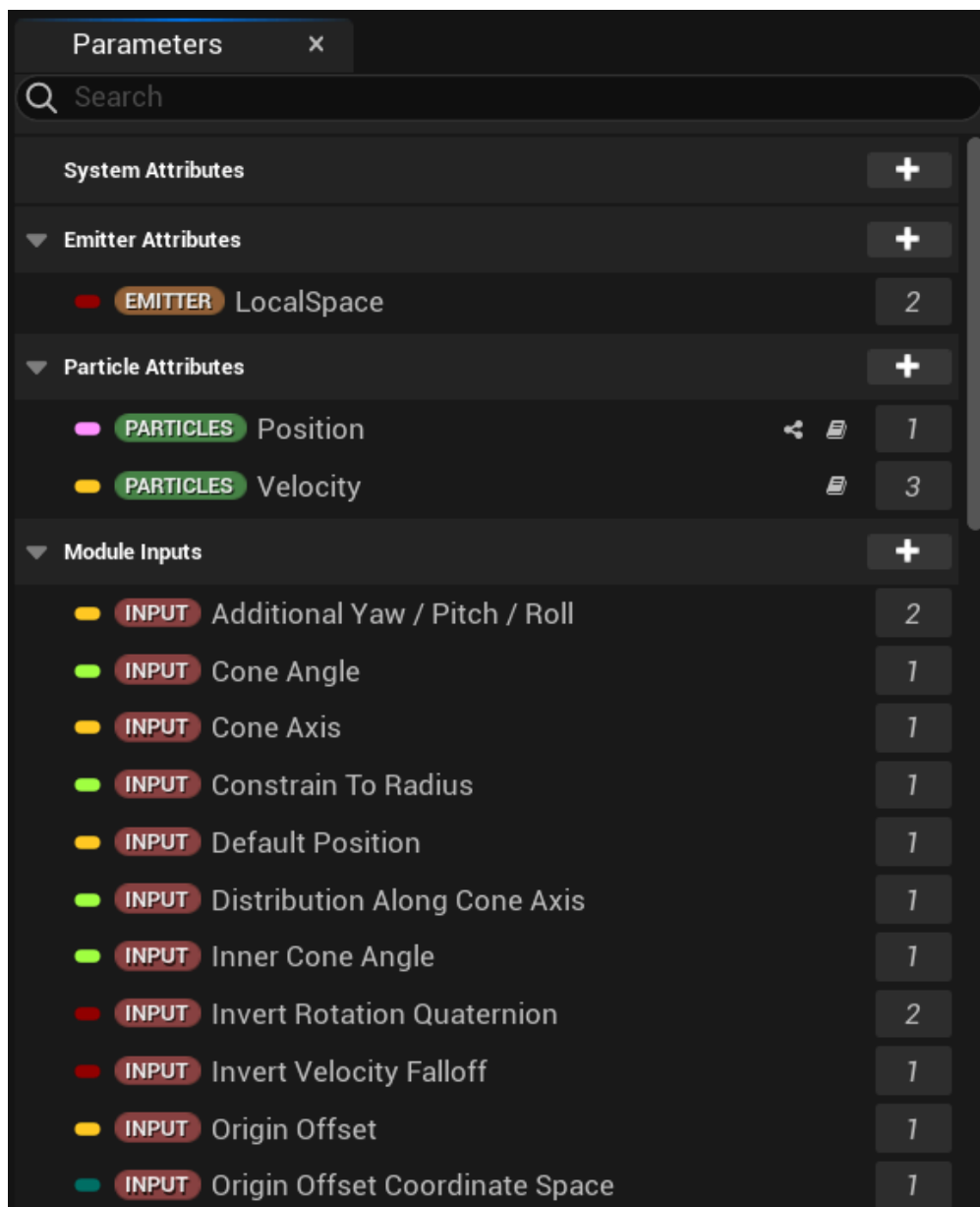
Click image for full size.

Setting	Description
Module Usage Bitmask	Use this dropdown to select the kinds of scripts that are appropriate to reference this module. You can select more than one.
Category	Use this field to indicate what category this module or script will be listed under when the user opens the add menu. Click the small downward arrow to display advanced text settings for this text field.
Provided Dependencies	Use this to create an array of the IDs of any dependencies this module provides to other modules. Add elements to the array by clicking the Plus sign icon (+).
Required Dependencies	This array contains dependencies this module requires from other modules in the stack. Each array element contains four

Setting	Description
	<p>members:</p> <ul style="list-style-type: none"> • ID: This is the unique ID of the required dependent module. • Type: This indicates whether the dependency belongs before or after this module. • Script Constraints: Specifies constraints related to the source script for modules providing dependencies. • Description: Enter a description of the required dependency. Click the small downward arrow to display advanced text settings for this text field.
Deprecated	This box is checked if the module is no longer used. Enabling this setting activates the next two settings. If this box is unchecked, the next two settings are unavailable.
Deprecation Message	Enter the message you want displayed when this module is deprecated. Click the small downward arrow to display advanced text settings for this text field.
Deprecation Recommendation	This is the module you want to recommend in place of the deprecated module. Click the dropdown to select the recommended module.
Conversion Utility	Use this to write or select custom logic to convert the contents of an existing script assignment to this script.
Experimental	Check this box to label this module as experimental (and therefore less supported). If this box is checked, the next setting becomes active; if left unchecked the next setting is unavailable.
Experimental Message	If this module is experimental, you can use this setting to enter a message you want displayed when the module is selected. Click the small downward arrow to display advanced text settings for this text field.

Setting	Description
Expose to Library	Check this box to expose this module to the library.
Description	Use this to enter a description for this module. Click the small downward arrow to display advanced text settings for this text field.
Keywords	This is a text field where you can enter a list of space-separated keywords that can be used to find this module in editor menus.
Highlights	Use this to choose which color-coded icons appear in the module when it is displayed in the System Overview. The list is structured as an array. You can add to the array by clicking the Plus sign icon (+).
Script Metadata	Use this to create maps, which are associative, unordered containers that pair a set of keys with a set of values.
Input Parameters	This lists the input parameters included in this script. You can add parameters by clicking the Plus sign icon (+).
Output Parameters	This lists the output parameters included in this script. You can add parameters by clicking the Plus sign icon (+).

Parameters Panel



This panel lists all the parameters that are used by the module you are editing. When you are building your script, you can drag and drop parameters from this panel into the Node Graph. The following table lists the categories, along with a description of that category. You can click the **Plus sign (+)** icon to display a menu of parameters to add to that category. You can also drag and drop parameters from this panel into the Graph while you are building a script.

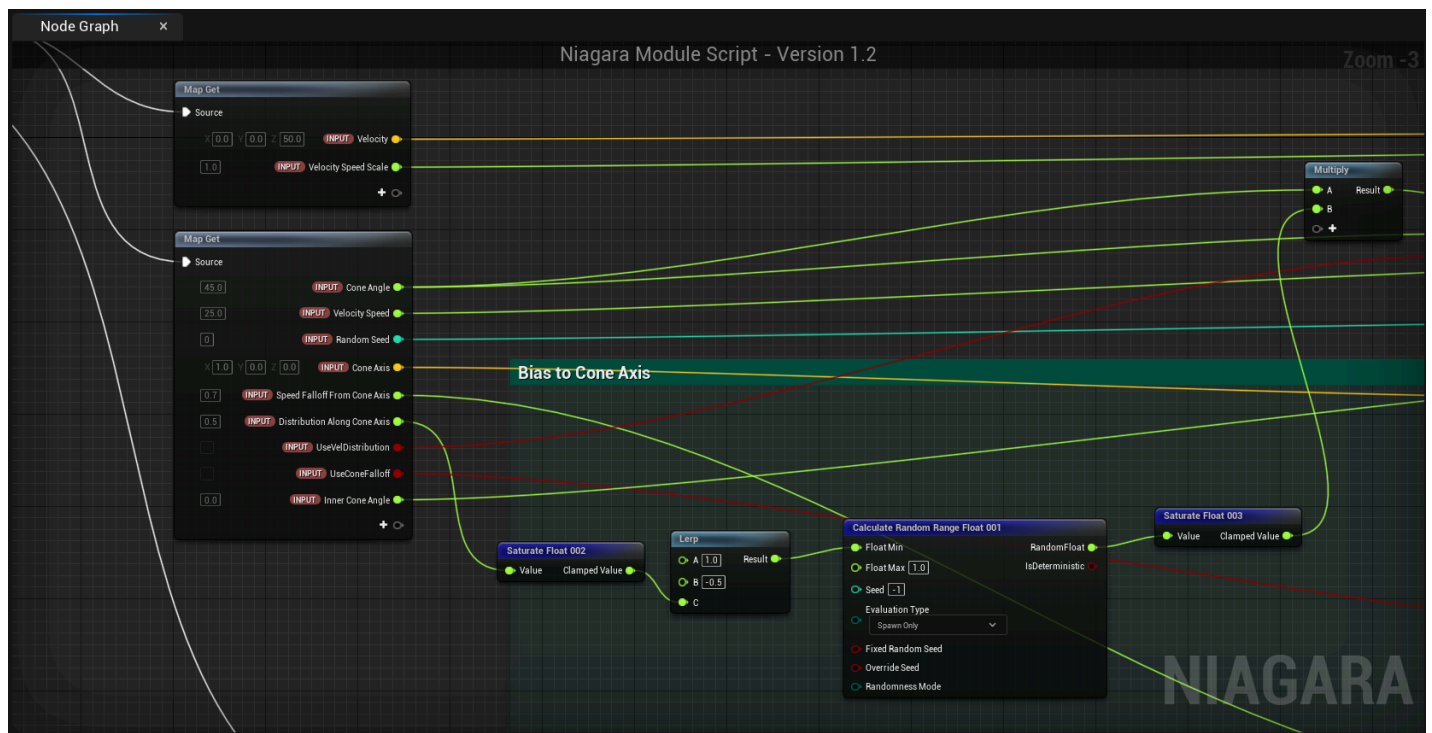
Parameter Category	Description
System Attributes	Persistent attributes that are written in the System stage, and can be read anywhere.
Emitter Attributes	Persistent attributes that are written in the Emitter stage, and can be read in the Emitter and Particle stages.

Parameter Category	Description
Particle Attributes	Persistent attributes that are written in the Particle stage, and can be read in Particle stages.
Module Inputs	Values that expose a module input to the System and Emitter Editor.
Static Switch	Values that can only be set at edit time.
Modules Locals	Transient values that can be written to and read from within a single module. Transient values do not persist from frame to frame, or between stages.
Engine Provided	Read-only values that are provided by the Engine. The source of these values can be the simulation itself, or the owner of the simulation.

Stats Panel

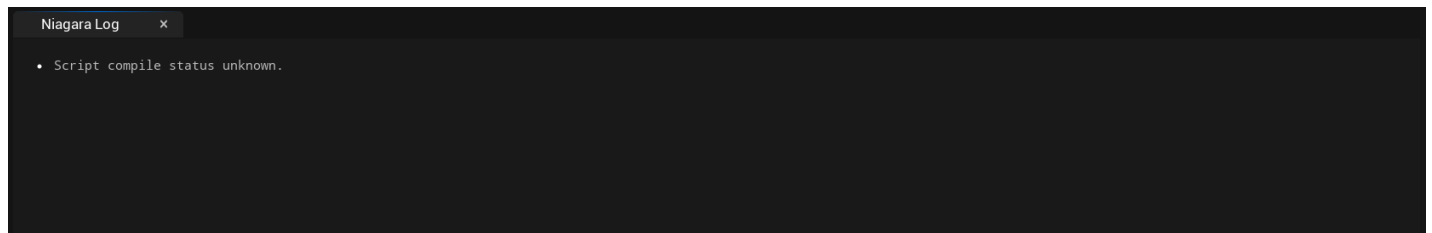


Node Graph



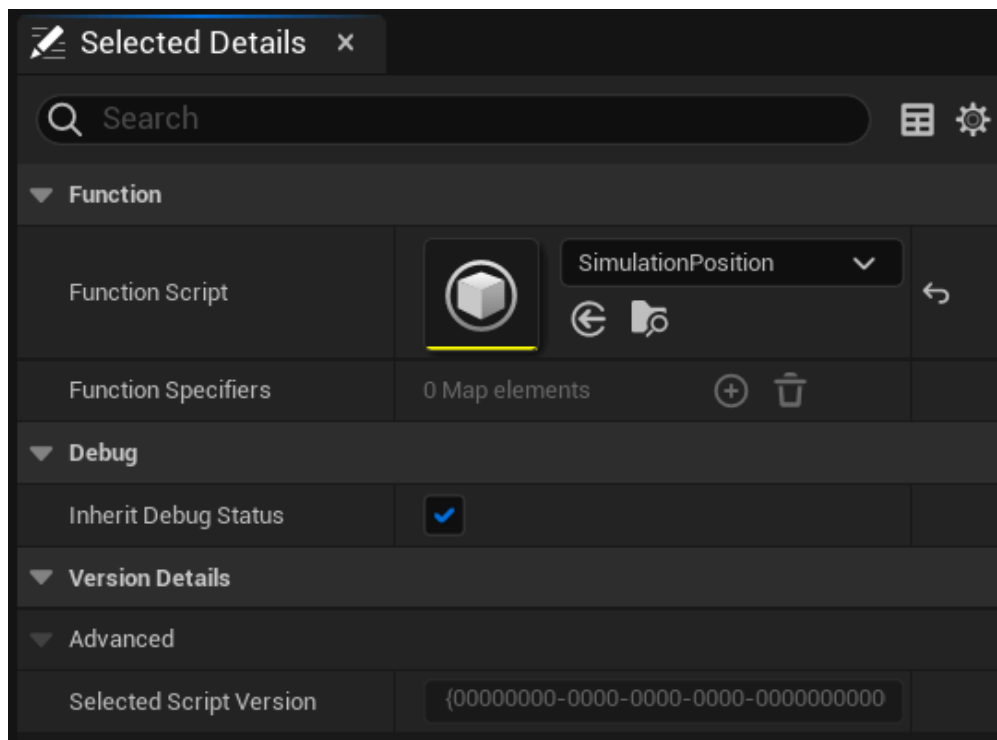
Similar to other types of Node Graphs used in UE4, this is a visual representation of the HLSL script you are building. You can right-click anywhere in the Graph to open a menu of nodes to choose from. You can also drag off an input or output on one of the existing nodes to open the same menu.

Niagara Message Log Panel



If there are any warnings or errors that occur when you compile your script, they will appear here.

Selected Details Panel



This panel displays details about a specific node that you have selected in the Node Graph.



Not all selected nodes will have information displayed in this panel.