



Unreal Editor Quick Start Guide

UE Plugin v1.0.9

Installation

- You'll need to install the latest version of the [Tangent Hub & Mapper](#).
- You'll need to install the [Tangent Control Surface Support](#) plugin from the Unreal Marketplace.
- You will also need to enable the UE plugin after installation.

Getting Started

Once you have the Tangent Hub and our UE Plugin installed and enabled your Tangent panels should spring to life as soon as you open a project. The panels will show a factory-default collection of controls, arranged into several Modes. While this is helpful as a starting point, the power of the panels will be unleashed by using the Tangent Mapper to create custom maps which suit your way of working.

For anybody unfamiliar with how the Tangent Mapper works we'd recommend that you first take a look at our [Mapper Made Simple](#) guide and/or our [Introduction to the Mapper](#) video.

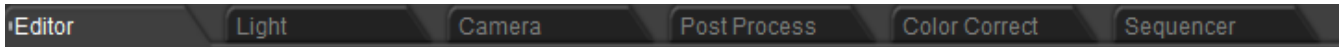
We also have a video [Tour of our Unreal Engine Support](#). This doesn't however cover some of the latest features.

Here's a rundown of the features which are included in the current build:



Modes

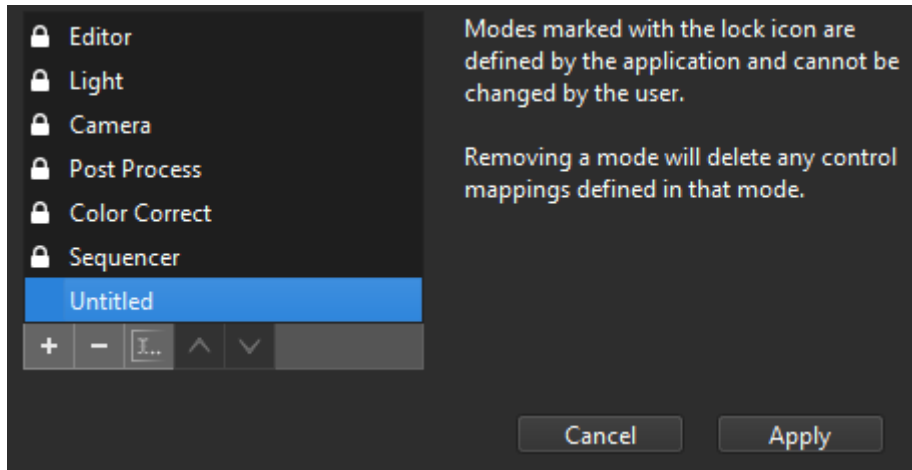
Default control maps are provided for Wave, Wave2, Element and Ripple panels. If you open the Tangent Mapper you will see that 6 Modes are defined:



Selecting a Light, Camera, Post Process Volume, Color Correct or Sequencer object within the Editor will cause the panel(s) to automatically switch to the appropriate Mode. Selecting any other object type will switch the panel(s) to Editor Mode. This automatic switching behaviour is enabled by default but can be toggled off and on with the **Sel->Mode** action button.

You can also define your own Modes from the **File > Edit Modes** menu.

This will open the **Mode Configuration** window which then lets you add user-defined modes:



Press the + button to add a new Mode and the – button to delete a user-defined Mode.

NOTE: When you create a new Mode it's possible to automatically change to the Mode when a particular actor is selected, either from the panel or from the UE GUI. See **Actor Quick Select** below.



Default Maps

Each inbuilt Mode has a selection of relevant controls mapped by default.

Some controls perform the same functions in more than one Mode:

Wave/Wave2

- The three trackerballs are mapped to Object Transformations or Color Changes. (See more details of Object Transformations below)
- The F1 to F6 buttons are mapped to change Modes.
- The Alt function of the left 6 Soft buttons are mapped to Actor quick selects (see below).

Element/Ripple

- The three trackerballs of the Element Tk and Ripple panels are mapped to Object Transformations or Color Changes. (See more details of Object Transformations below)
- The bottom 6 Element Mf buttons are mapped to change Modes.
- The top 6 Element Mf buttons are mapped to 6 Actor quick selects (see below)

The Alternate functions of trackerballs, rings and knobs are mapped to fine sensitivity of the same properties.

Many other relevant functions for each Mode are mapped by default, but there are yet more inbuilt functions available for users to assign themselves from within the Tangent Mapper.

Actor Quick Select

You can assign any button to perform an “Actor Quick Select” action. There are 24 of these actions available. Once a button on the panel is assigned to this action:

- Press and hold the button for 2 seconds to train it to select the current actor.
- **NOTE:** This will also link the current Mode to the actor.
- Press the same button briefly to select that actor in the editor and to also change the panel Mode to the trained Mode.

Object Transformations

In addition to the inbuilt reference frames of Local and World of UE, our system adds Camera and Viewport to make it simpler to move objects relative to the camera and viewport orientations. Just select the required reference frame from the **Xform Ref** menu button on the panel.

Two fast-select Combined Transforms are available in the Mapper: Actor (Z-up) and Camera (Y-up). The default transform mapping in the Camera Mode is set to Y-up and all other Modes use Z-up.



Multi-User and History

Live updates are sent to other users for changes made from panels, just like changes made from the GUI. Changes made from a panel are appended to the Undo History. As there is no mouse click/release to trigger a new history event the system waits for a short period of inactivity before adding a new history entry.

Memory resets

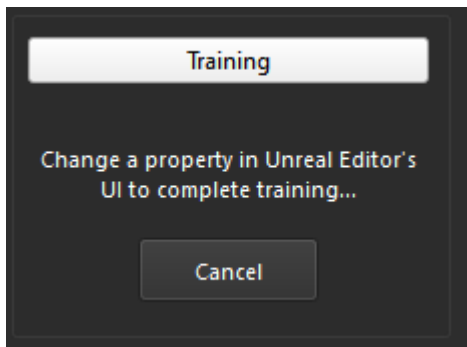
The reset values provided by the UE Editor are often unhelpful. So we have added a “memory” function for each property of each individual actor. This memory value is stored the first time the property is changed from the panel after the editor starts. A single press of a control’s reset button will then return that property to the value which was stored and a double-press will revert to the Editor’s default value.

There is also a new Action available to map to panel buttons: “Edit->Clear Resets”. When this action is fired, all the “memories” will be cleared. They will then be saved again when each property is next changed from a panel control.

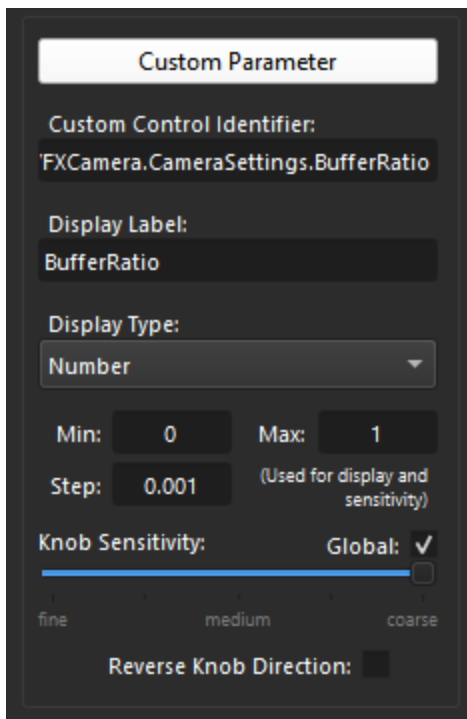


Control Training

While our built-in support continues to improve, UE has so much functionality that it would never be possible to include control of everything. This training function allows you to add control of many more functions of the Editor. Just choose **Train this control** from the Tangent Mapper's Control Mapping Menu and adjust a function in the UE GUI:



This function will then be mapped to the physical control on the Tangent Panel. The bounds of the control can then be fine-tuned in the Mapper if necessary:

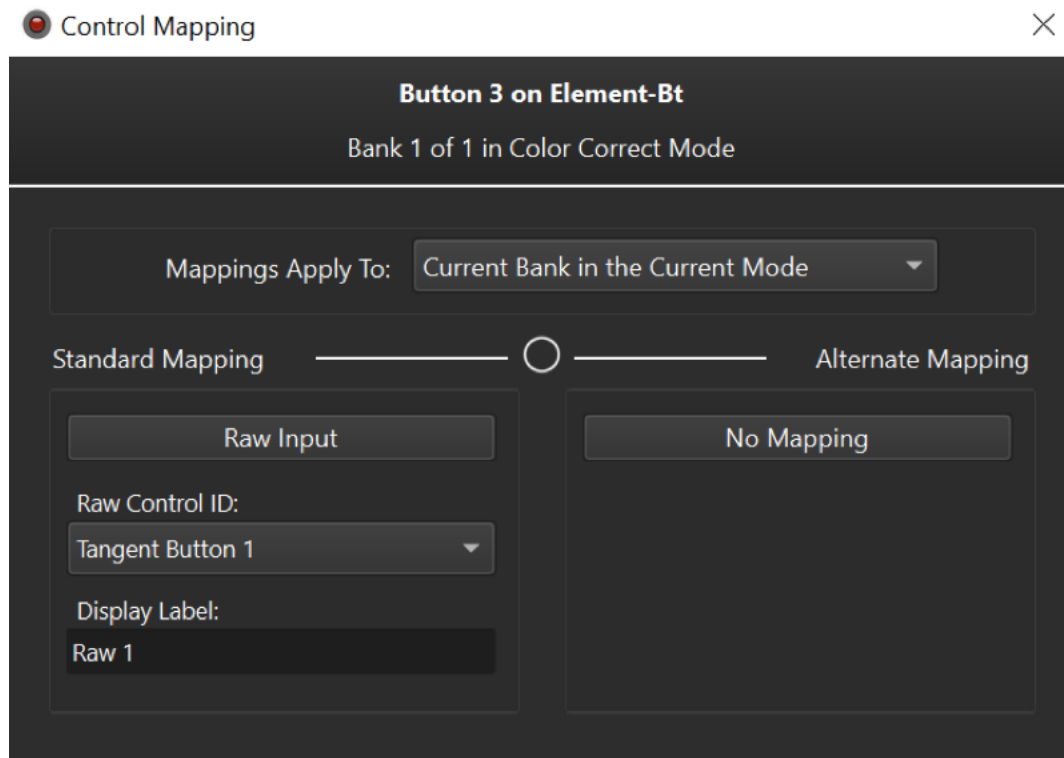




Raw Input from Panel Controls

There is now support to allow you to drive actors from Tangent panel controls when in Play-In-Editor mode using Engine Input Bindings and Axis and Action Mappings . The Tangent plugin adds new controls to the list of available options in the Unreal Editor project settings for controller mappings.

To use these, map a knob, dial or button to the Raw Input option in the Tangent Mapper.

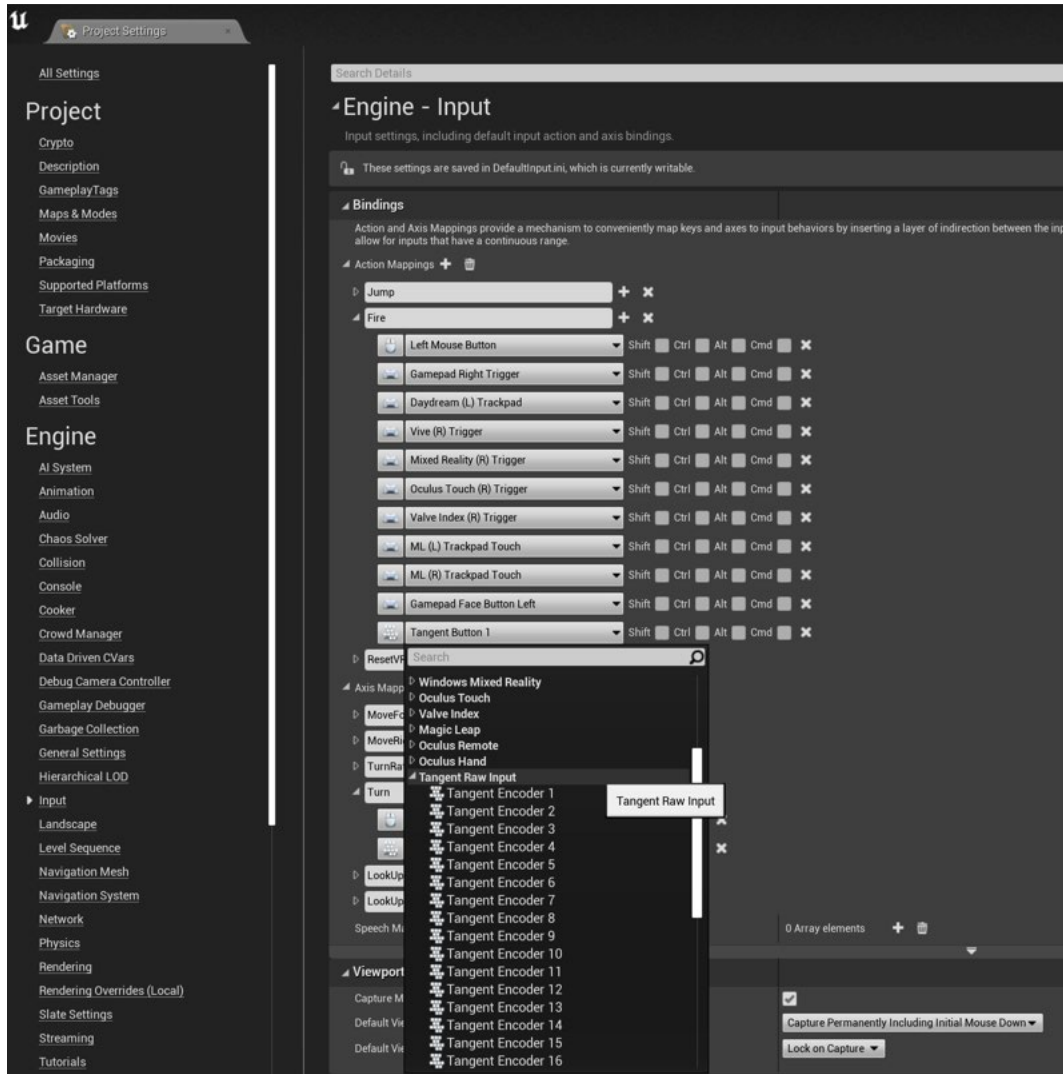


In the mapping details you choose the ID of the control (numbered encoders for analogue controls and numbered buttons for action triggers). These same IDs can then be selected in the Engine Input settings in the appropriate bindings and mappings for your project.

Continued below....



In the Unreal Editor choose the Edit > Project Settings... menu option, and then navigate to the Engine > Input category. In your project's mappings you will see a new Tangent Raw Input subcategory beside the other keyboard and controller types in the list of available options.



When the panel control is changed by turning a knob or pressing a button the corresponding binding will be triggered in the same way as any other key or controller that is configured.