

#### SHOWROOM NAVIGATION SYSTEM

Documentation



**YOUTUBE;** https://www.youtube.com/channel/UCN8YBTBXKPYQ\_Q4aXWxERBQ/videos

**DISCORD** https://discord.gg/n25G95ksns

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https://www.youtube.com/watch?v=6YsA3roevB4&t=642s

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# **1. Migration**

#### If you start directly from the template than there is no need for migration you can jump directly to Chapter 4.

**1.** Create a new Project from EpicGames Launcher and open it.

**2.** Go to "Projectsettings" - "Input" and export the Input. ini File.

l Project Settings ×	
	Search Details
Game	∡Engine - Input
Asset Manager Asset Tools	Input settings, including default input action and axis bindings.
Fngine	Pa These settings are saved in DefaultInput.ini, which is currently writable.
Al System	⊿ Bindings
Animation	Action and Axis Mappings provide a mechanism to conveniently map keys and axes to input behaviors by inserting a layer of indirection between the input behavior and the keys that invoke it. Action Mappings are for key presses and releases, while Axis Mappings allow for inputs that have a continuous range.
Audio	ÞAction Mappings 🕂 🛅
Chaos Solver	D Axis Mappings 🕂 👼
Collision	Speech Mappings 0 Array elements 🕇 🖻
Console	
Cooker	▲ Viewport Properties
Crowd Manager	Capture Mouse on Launch
Debug Camera Controller	Default Viewport Mouse Capture Mode Capture Permanently Including Initial Mouse Down
Gameplay Debugger	Default Viewport Mouse Lock Mode Lock on Capture
Garbage Collection	
General Settings	⊿ Mobile
Hierarchical LOD	Always Show Touch Interface 🥑
Input	Show Console on Four Finger Tap 🥑
Landscape	Enable Gesture Recognizer 🥑
Navigation Mesh	
Navigation System	Default Touch Interface None
Physics	
Pendering	
Bendering Overrides (Local)	∡ Virtual Keyboard (Mobile)
Slate Settings	Use Autocorrect
Streaming	
Tutoriala	∡ Console

**3.** Rightclick on the "Showroom Navigation" folder and choose migrate.

**4.** Migrate to the "content" folder of the project where you want to use it.



#### 5. Close project and open your project with migrated content

**6.** Open "Edit/Projectsettings - go to "Maps and Modes" and set your Gamemode to "BP\_ShowroomGamemode", set your level to the "Demo\_Showroom" and your Geminstance to "BP\_Showroom\_Gameinstance"



7. Go to "Input" and import the ".ini" file you exported before.

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8. Done (to check it - open DemoShowroom map and test)

## 2. DemoProject Lightsettings

If you want the same lightsettings as in the Marketplace-package do the following: (- if you have your own level, jump directly to chapter (4.))

1. Open DemoShowroom map to see the changes

**2.** Under ProjectSettings/ Rendering set the "Default Settings" like in the picture. Restart the engine and build lighting, than build ReflectionCapture.

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Project Settings ×						
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Cooker	Bloom					
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Hierarchical LOD	Extend default luminance range in Auto Exposure setti	ng 🖌				
input	Apply Pre-exposure before writing to the scene color	-				
Landscape	Enable pre-exposure only in the editor					
Navigation Mesh	Motion Blur					
Navigation System	Lens Flares (Image based)					
Network	Temporal Upsampling					
Physics	Anti-Aliasing Method	TemporalAA	-			
► <u>Rendering</u>	Light Units	Candelas				
Rendering Overrides (Local)		Culture				
Slate Settings	<b>⊿</b> Optimizations					
Streaming	Render Unbuilt Preview Shadows in game					
Tutorials	Use Stencil for LOD Dither Fading					
User Interface	Early Z-pass	Decide automatic	cally 💌			
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### **3. Create a Level for Presentation**

We create now a new Level with the Showroom Mesh -(if you have your own level, jump directly to chapter 4.)

**1.** Create a new map/Level - (your MainLevel) - call it "TutorialMainMap" (*I create just for tutorial - you can use your own level or what ever you want.*)



**2.** I copy the lighting from "Demoshowroom" level to my "TutorialMain-Level.

(You may have your own lighting, if you want this light - you can copy.)



**3.** In the new "TutorialMainMap" with the lighting pasted in, I am now draging my ShowroomMesh in the level and set its position to 0,0,0



**4.** In "Worldsettings" set "Force No Precomputed Lightings" on. Build light and build reflectioncapture



Now a new level is ready for presentation and we start with the Showroom Navigation System

# 4. Start with SNS (Masterpawn/Zoompoints

**1.** All you need to start is in "Blueprints" folder on the first floor. Drag the BP\_Master-Pawn" and the "BP\_Basetarget" into your scene. This are the only blueprints we have to drag into the scene, the rest we create always from the pawn or by duplication in the scene.



**2.** The Masterpawn is the camera that flyes to the targets, so its not important where it is placed. Select the Masterpawn und set "Actor To Fly Base" to your "BP\_Basetarget" (The Basetarget is the starting point for your experience)



**3.** Select your BP\_BaseTarget and set "Armlength and Rotation" like you want your starting view. You have a small CameraPreview in the right bottom corner. For setting location you can use the viewport gizmo, for rotation you have to use the values on the target (marked red in the Picture) This is for all targets the same.



# When you now hit play. The camera will be at the "BaseTarget Point". We can now start with the Zoompoint setup.

**4.** Select your "Masterpawn" and take a look at the buttons for creating targets/ponits. From Level1 you can access all targets except the "ZoomDetailTarget". This is meant for a zoom to "Level3" when you already are on a "ZoomPoint" or Waypoint. So I create a Zoomtarget by pressing the Button - "ZoomPoint" on my "MasterPawn". Dont get confused Point/Target is the same. I have to fix the name on the buttons.



**5.** Now Select your ZoomTarget -position and rotate it like you want it to be. Do it the same way as the Basetarget before. You can now create as many Zoomtargets you want. Or duplicate the one you have.



Button Offset: Use to offset your button from OrbitPoint
Button Scale: Scales only 3D button
Touch UI: If off only mouseover effects will be visible
UI Dummys in Game: Dummys are visible in game for testing
Button Rotation: Use to rotate button - camera will stay same
Click/Touch Icon Offset: For offsetting just click or touch icon
Icon switch: switch to billboard icon . Billboard settings are now active
You can set it up like the 3D icon but there you can assign individual
billboard and Textlabel. This dont effects your 3D Icon settings.

PanoPawn ON: Set it up for panocapture - read PanoPawn Chapter

## 5. DetailZoom Target

**1.** Create the ZoomDetailTarget with the button "ZoomDetailPoint" on your Master-Pawn. This ZoomDetailTarget will be only visible on Level2 and Level3 - so when you already are at a ZoomPoint, waypoint or in firstperson.



**2.** Setup is the same as the ZoomPoint. Set the location with the gizmo. Set the armlength and rotation in the "Detail Panel". At the end, offset your button and set label and billboard if you like.



## 6. WAYPOINTS and ActorTags

Waypoints are accessable from all levels, also in tour and listmode. Waypoints are off in FirstPerson Mode. Waypoint has no armlength, because he is rotating around his own center.

1. Create the waypoint with the button "Waypoint" on your MasterPawn.



**2.** Set your position with gizmo and set the camera height. I use normal between 100 and 200 for Waypoints to get a persons headheight.

**3.** If you enable "get User WP rotation" The waypoint will have a fixed enter rotation for the camera. You can set this rotation in "Waypoint Cam rotation". A red cylinder will point in this direction. If you do not set "get User WP rotation" ON - the entry rotation will be always the past viewing direction.



**4.** If you want to show your waypoints from start - means on "Levell". Select your Waypoints go to "Actor Tags" and add "Levell" to the list.



#### LIST OF ACTOR-TAGS

Level1: Shows Target or Object in Level1 Level2: Shows Target or Object in Level2 Level3: Shows Target or Object in FirstPerson WaypointDisplay: Shows Target or Object when Waypoint is active Waypoint: SYSTEM TAG - DO NOT CHANGE ZoomPoint: SYSTEM TAG - DO NOT CHANGE ZoomDetailPoint: SYSTEM TAG - DO NOT CHANGE PanoHide: You can use this TAG to hide objects you dont want in PanoCapture. MasterPawn: SYSTEM TAG - DO NOT CHANGE

# 7. Tourmode and Listmode

**1.** On your Masterpawn you can enable/disable the tourmode. You can assign Zoom and Waypoint targets to your Tour or List. Use the plus-icon to create new slots and the "pipette - tool" or "dropdown" to assign Zoom or Waypointtarget



**IMPORTANT:** The First Point has to be the "BP\_BaseTarget"!

**2.** If Tour is enabled the Tour Icons will be visible, if Tour and List is enabled the Listview will be visible.





Some users had Problems with Tour/List Names in build, some not. BaseTarget, ZoomTarget and Waypoints have now also a Textfield and a checkbox **"activate Tourname"** 

You can enable and type in a Name independend from your Objectname - this works in every Case.

## 8. OpenLevelPoints

**1.** Create an "OpenLevelPoint" from your Masterpawn. OpenLevelPoint needs a new level/map to open.

You have two pawns for navigate in your secondary Level/Focuspoint. **Complex or simple.** 



**Complex:** Zoomtargets, ZoomDetailtargets, DeepOpenlevel(can open agein a SimpleOpenLevelpoint) and Infopoints **Simple:** Infopoints

Both have same viewport-navigation as the ShowroomLevel. And save there transforms for smooth transition.

All you need, you find in the specific folder -complex or simple (marked in red).

**2.** I do a new Level/map and name it "Drill\_Focus". I do the same as in chapter 3 but this time I drop in the "Drill" mesh.

**3.** In the "Drill\_.Focus" map go to "Worldsettings" and set "Overwrite Gamemode" to "BP\_DetailComplex\_Gamemode" or "BP\_DetailSimple\_Gamemode" - as your case may be.



4. Now drop in your Complex or Simple PAWN from the complex or simpleFocus folder. With complex-Pawn you also have to drag in the BaseTarget. You can setup all like in Chapter4. Now you just have to set a "Level to go back" and a "Home Level" direct on the Pawn . For complex both will be your MainLevel. If you create a DeepOpenLevel from the ComplexPawn and go to a deeper SimpleLevel, than there will be your HomeLevel the "TutorialMainMap" (in this case) and the ""Go Back Level" the "Drill\_Focus".



**5.** ,Back in Showroom Level (Main Level) set the OpenLevel Point to the level you want to open. In this case "Drill Focus"

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# 9. FirstPerson

**1.** Drag your FirstPersonCharacter in the scene and set "Back to Main Level" to your Main Level name. If you are on BaseTarget/Level1 the character will start at FirstPerson Location. If you are in Level2 or 3 he starts at the Position you are.



### 10. Panopawn

The PanoPawn is for automatic capture zoom and Waypoints with the build in "panoramic capturing" Plugin from Unreal.

Here you find Tutorial Video: https://www.youtube.com/watch?v=HXyNPsyoqWk

# 11. Tipps

**1.** When you migrate the SNS to a Unreal 5 Project it is possible that the touch is not working in Editor preview. This is a bug in unreal I think. To test Touch use standalone Game or build.

**2.** If the camera traveling is not smooth on your Windows Touch use fixed Framerate.

**3.** If you have really large landscape and Points with distances of more than 100K, you have to increase "tracing distance". You have to create a new player Controller and increase there the tracing distance, than add the player controller to the Gamemode - where you need it.