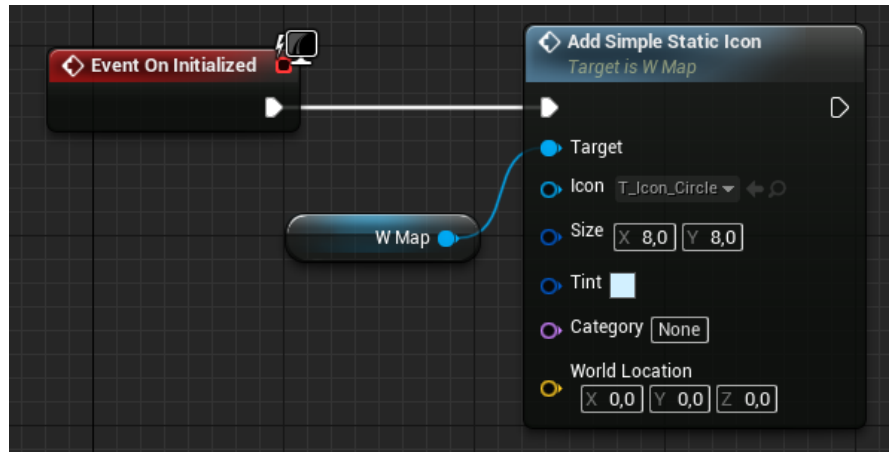


Map Widget Documentation

Basic setup	2
Map	3
Variables	3
General	3
Zoom	3
Panning	4
Categories	4
Functions	4

Basic setup

Place the W_Map widget as a component to your own widget where you would like to display a map. Set it up to your liking through the variables detailed below (**Map / Variables**). Use an event or a function (Recommended: Initialized/Construct) to add icons or widgets. The simplest one to use is the AddSimpleStaticIcon method which places a simple image (**Icon**) at the given **World Location** using the **Size** and **Tint** parameters.



For a detailed example, please check out the **W_MapMenu** widget in the **Demo** folder. For a detailed explanation about the functions that you can use to add icons and custom widgets, please look at the **Map / Functions** segment below.

Quick setup from scratch ~tutorial: <https://youtu.be/sO5jU4lqrho>

Map

Variables

General

World to Screen Multiplier

Defines the base multiplier between a world unit and a screen unit. The background image should be drawn according to this zoom level. Similarly, the default icon size should be decided with this multiplier in mind.

Map origin

Defines the center of the map. Any position will be offsetted from this point.

Pan Center to Pawn

Should the map be panned to the owning pawn's location when it's opened. (Construct)

Dynamic Refresh Interval

How often should the dynamic icons refresh in seconds.

Background Image

A background image that moves with the zoom and the pan. This background limits the panning and zooming so the image can fit within the size of the widget! For a non-limiting background please use a simple border behind the Map widget.

Zoom

Zoomable

Enables/Disables zooming.

Zoom Mode

- **ZoomToMapCenter**
Zooms to the map origin.
- **ZoomToScreenCenter**
Zooms to the current center of the widget or with different words to the current panned location.
- **ZoomToCursor**
Zooms to the position of the cursor.

Zoom Speed

Defines the speed of the zooming.

Zoom Speed Scaled

Should the zooming speed be scaled by the current zoom. Recommended to keep the zooming a linear experience for the user.

Min/Max Zoom

Minimum and maximum zoom levels where the minimum is the farthest away and the maximum is the closest.

Min/Max Icon Size

Minimum and maximum size of the icons. Example: On zoom value 4, a 32x32 icon would be 128x128 big but a Max Icon Size of 64x64 will limit it from zoom value 2 and the icon will stay the same size.

Panning

Pannable

Enables/Disables panning.

Pan Mouse Button

Which mouse button should be used to pan the map.

Panning Limit

Should the panning be limited by a rectangle in world coordinates. (Useful for maps with no background.)

Panning World Limit

Panning limit in world coordinates.

Categories

Categories

Defines the categories for the map. (Struct details below)

Category Icon Size

Size of the category icons in the list.

Category Font

Font of the category titles in the list.

Categories Hideable

Should the categories be hideable through the menu or other means.

Categories Show on Side

Should the categories menu be visible on the map.

Category Hidden Opacity

What should the opacity of a hidden category be in the menu.

Functions

AddSimpleStaticIcon

Used to add simple static icons that you do not intend to move or delete from the map.

Icon The image you would like to show on the map.

Size Size of the image at the base zoom level.

Tint Tint of the image.

Category Category's key if you want to be able to hide it from the map.

World Location What world location should the icon indicate.

AddStaticWidgetIcon

Used to add custom static widgets that you do not intend to move or delete from the map.

Widget The widget you would like to show on the map.

Size Size of the widget at the base zoom level.

World Location What world location should the widget indicate.

Category Category's key if you want to be able to hide it from the map.

Manual Resize Should the map let the widget to handle the resizing.
(Requires BI_MapIconResize interface)

AddSimpleDynamicIcon

Used to add simple dynamic icons that you intend to move or remove. Returns the widget that you can use to reposition it or to delete it with **RemoveDynamicWidget** function.

Icon	The image you would like to show on the map.
Size	Size of the image at the base zoom level.
Tint	Tint of the image.
Category	Category's key if you want to be able to hide it from the map.
World Location	What world location should the icon indicate.

Add(Rot)ActorDynamicIcon

Used to add removable dynamic icons that follow an actor (The rotation of the yaw axis will also be followed with the **Rot** version. Returns the widget that you can use to delete it with **RemoveDynamicWidget** function.

Icon	The image you would like to show on the map.
Size	Size of the image at the base zoom level.
Tint	Tint of the image.
Category	Category's key if you want to be able to hide it from the map.
Actor	The actor that icon follows.

AddDynamicWidgetIcon

Used to add custom dynamic widgets that you intend to move or remove. You may use the widget to remove it later using the **RemoveDynamicWidget** function.

The widget needs to implement the **GetPos** function from the **BI_MapDynamicIcon** interface and return a world location along whether the position is still valid (if not, the widget will be removed).

Widget	The widget you would like to show on the map.
Size	Size of the widget at the base zoom level.
Category	Category's key if you want to be able to hide it from the map.
Manual Resize	Should the map let the widget to handle the resizing. (Requires BI_MapIconResize interface)
Manual Refresh	Should the map let the widget call their own world location update. (Dynamic refresh won't check for new position.)

ToggleCategory

Toggles the visibility of a category

Category	Name of the category.
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PanToPawn

Pans map to the pawn.