

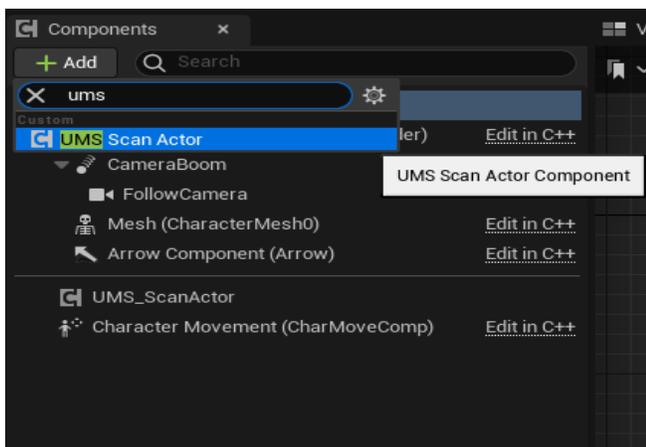
Ultimativ Multiplayer Scan System



Description:

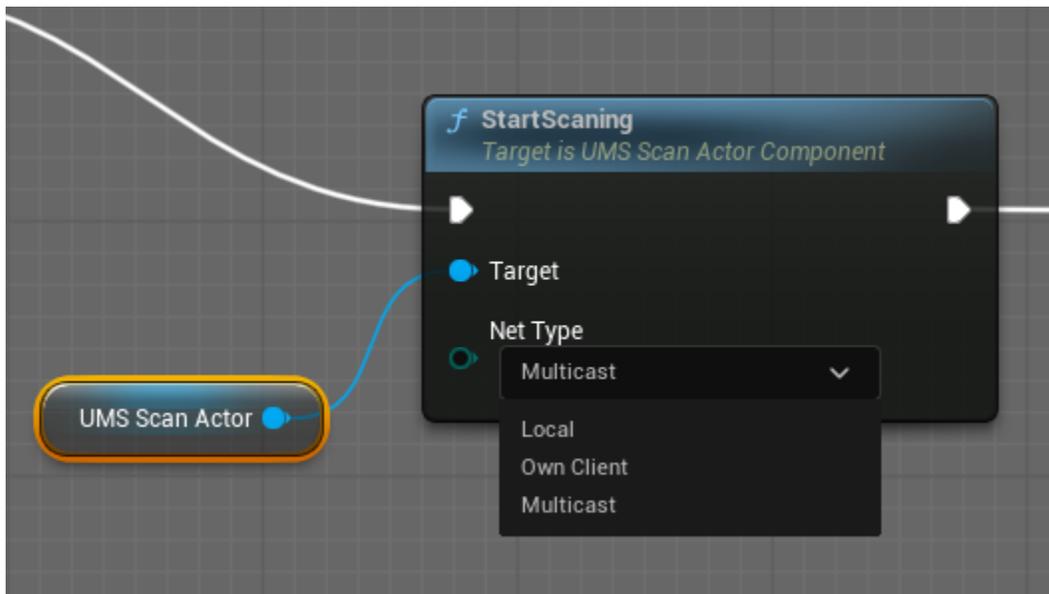
This is a multiplayer ready scan system written and optimized in C++ with highly customizable and easy to use scan effects with Outline or Depth effects by using actor component.

How Work:



To make our scanning feature work with your custom character, you need to add an actor component “UMS_ScanActorComponent” to your character and set the main scan material, float curve and widget created from UMS_TargetPoint_Widget_Base class. If not set, the game will crash on the Scan process.

After it you need to call from component the function: “**Start Scanning**” in a place where you wish and select **Net Mode** variable which will activate Scan on net mode (Single Player/ Dedicated Server/ListenServer) .

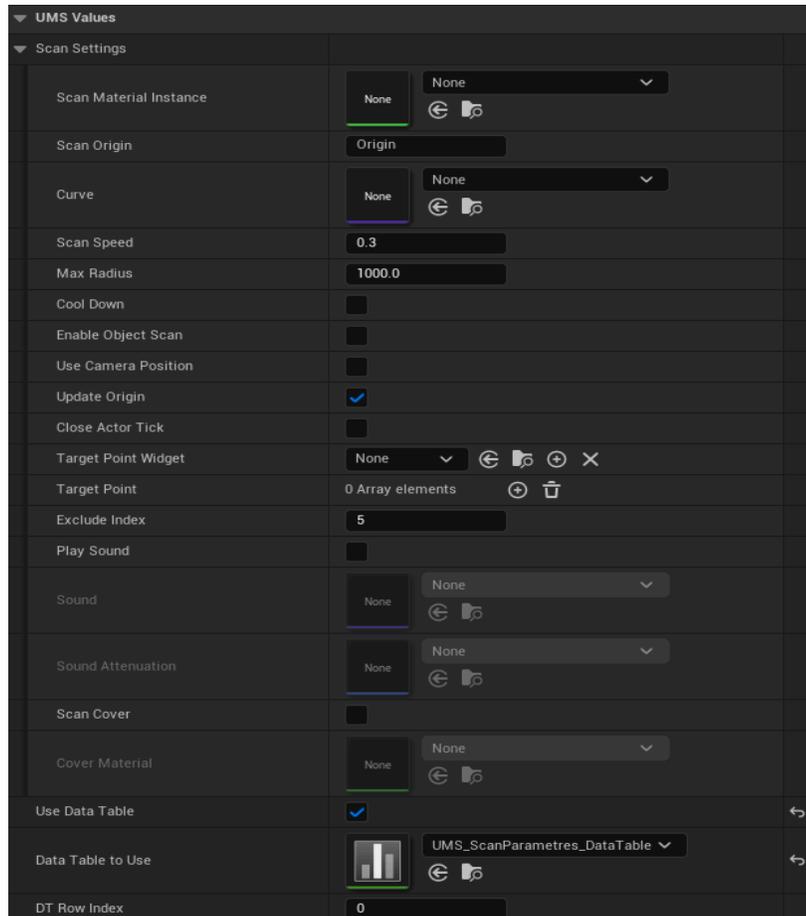


I recommend not use multiplayer active if you don't create multiplayer game for correct optimization and correct work, also for reverse situation.

After all that, you need to add the included tag in scan settings to the needed object or actor in “Actor Tags”, after this activate on this collision settings the “Generate Overlap Events” and all done.

To customize the scanning feature to your needs, you need to change settings manually or activate DataTable usage and select data table to use.

“**UMS_ScanParametres_DataTable**” where you can configure existing scan options or create new ones.



Data Table - includes variables:

Scan Material Instance - Changes which material instance will be used to produce the scanning effect. Depending on the material instance you can get many different looking scan effects. You can find all the currently created instances in

“UltativMultiplayerScanSystem\Content\UltativMultiplayerScanSystem\Materials”

Curve - Control scan movement over time

Scan Speed - Controls how fast the scan progresses along the selected curve.

Max Radius - How far does the scan extend from the origin point

Cool Down – Activate once usage per time, and need to wait when the activated scan will end.

Enable Object Scan - If set as true, then the scan will look for objects on the scene specified in

Use Camera Position - Use scan spawn effect from player camera location.

Update Origin - Will activate movable of target widget and will be attached to founded object or not.

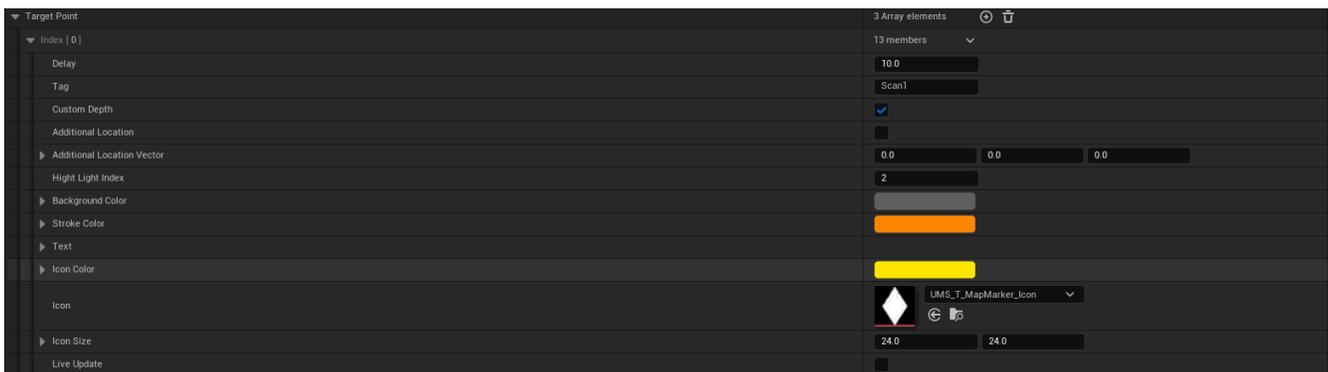
Close Actor Tick – Will disable ticks to overlapped objects or actors by scan.

Target Point Widget – Is widget which will spawn on overlap by scan. This widget should be a child of the UMS_TargetPoint_WidgetBase class.

Exclude - Exclude objects affected by scan, default stencil index is (5) you can change indexes in material and in the data table (make sure both are the same index).

Play Sound – Will activate play sound in the location where the scan effect will be.

Target Point - if Enable Object Scan is set to true, Target Points allow you to specify the visual target that should be displayed on each object with a chosen tag.



Delay - controls how long the target pointer attached to an object will stay on the screen.

Tag - what tag the objects in the world need to have to have the target pointer be attached to them.

HighLight Index - custom stencil index for the highlight. By default there is 4 variations of the index (1, 2, 3, 4) you can change index and other settings in material instance.

Background Color - changes background of the target widget

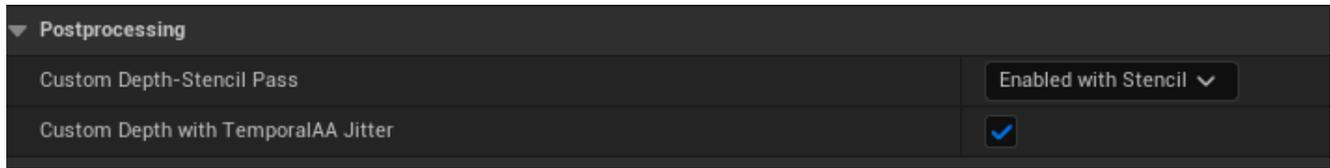
Stroke Color - changes the stroke color on the target widget

Text – this is settings of text like text fond, material and other details from Target Widget.

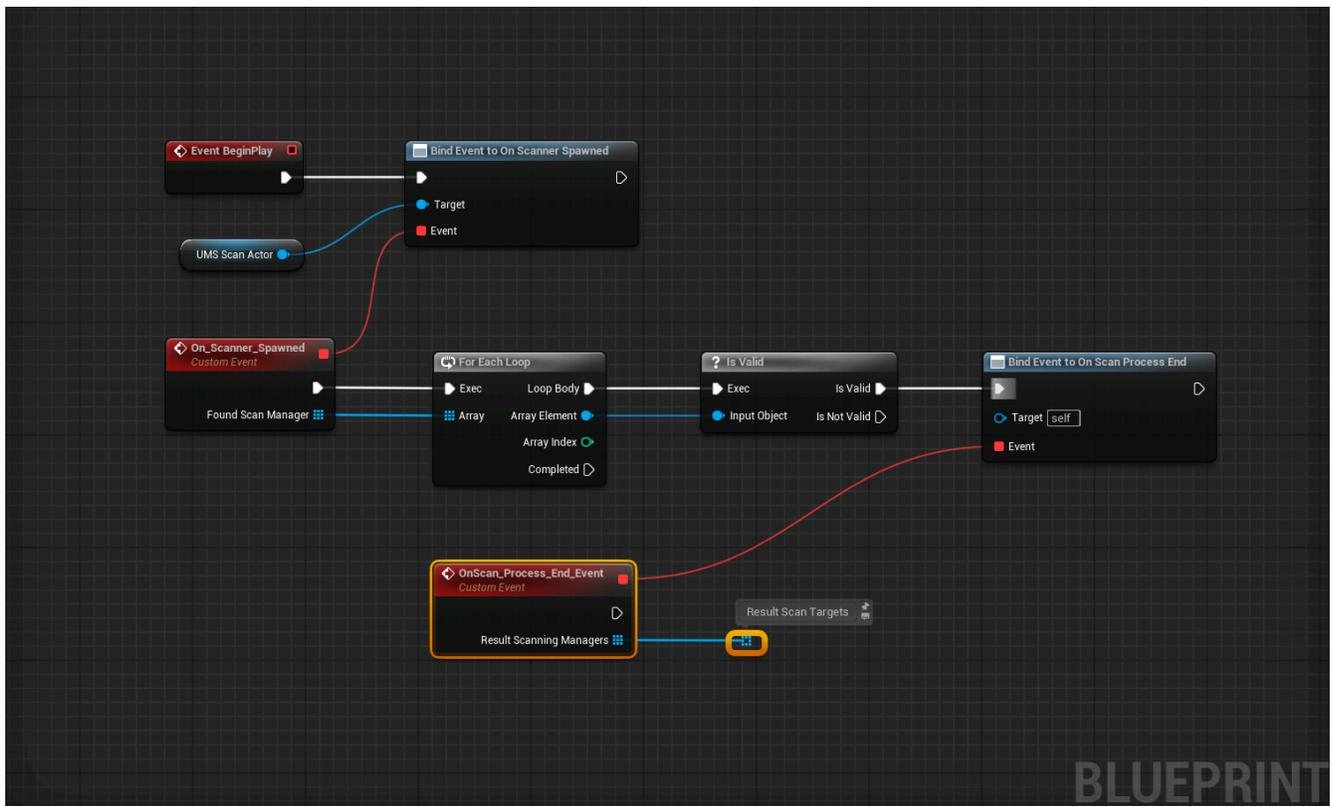
Icon - changes center icon of the target

Custom Depth - enables Custom depth on the target widget. To use this feature you need to

enable it in project settings as shown below.



On Updated version 1.2 from UE 5.6 added more responsible actions from Scan system:

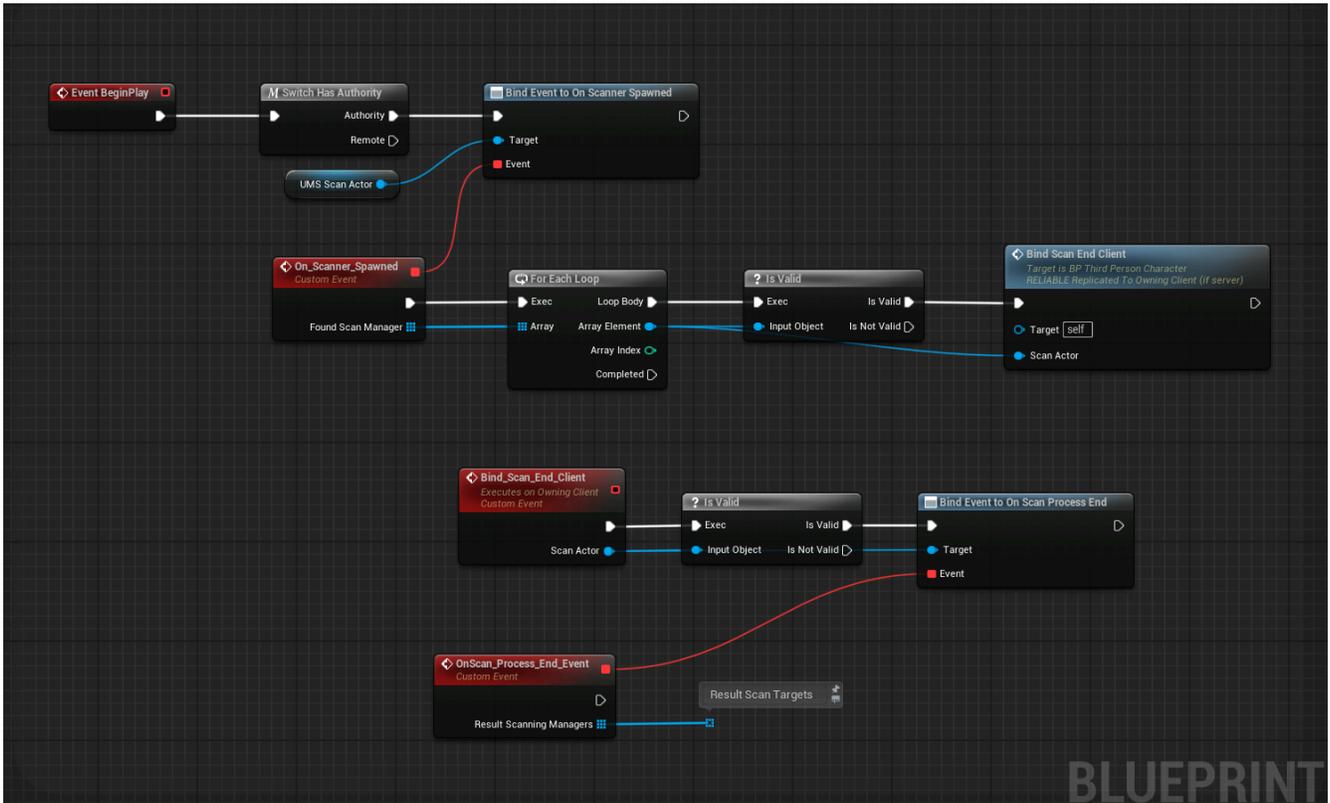


Now when the scan will end, you can bind and get all the interacting points, with this you will be able to do more actions and be more comfortable when the scan ends.

- This Delegation is named **“On Scanner Spawned”** and is called from the component on begin play.
- This delegation works in Single player only and Return reference of Actors which performed the Scanning, inside result actors you should bind **“On Scan Process End”** this return all found Targets. (This method is called when scanning finishes.)

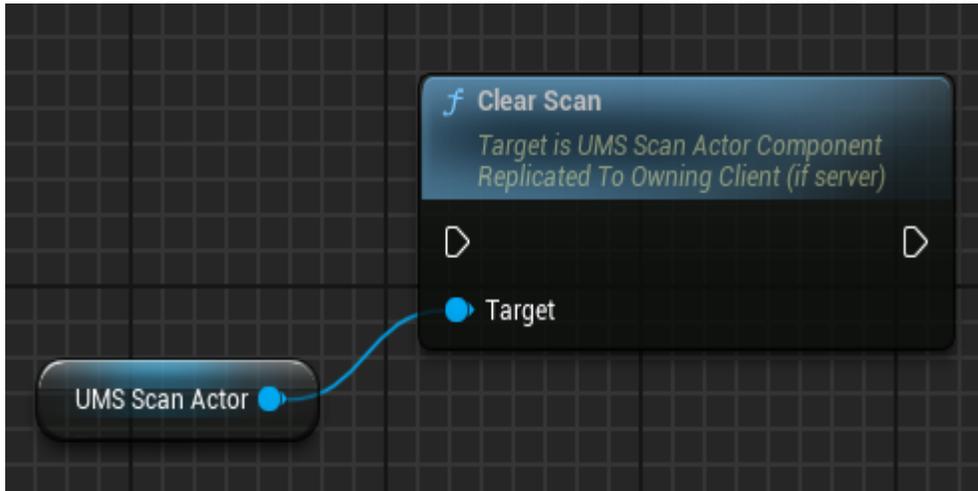
For ideal I recommend to use like in image even if it is a single player type of game, because it will be able to calculate for who to do next action on Scan end.

For **Bind** and get found Targets on **Online modes** use next example:



- Its work similar like at single mode but you should know, no matter which Net Mode was selected, the scanning actor are all time spawned on server and “**On Scanner Spawned**” bind should be assigned on method replicated to be done on server or use like in image with begin play and use “**Has Authority**”.
- Next step you should also bind every result Actor with “**On Scan Process End**” but this time it should be done by sending actor ref to an Own Client replicated Function if **Net Mode** was selected as “**Own_Client**” and to an Multicast replicated Function if **Net Mode** was selected as “**Multicast**”.

Also added: “**Clear Scan**” function which also work in all connection types (single, listenserver, dedicated server).



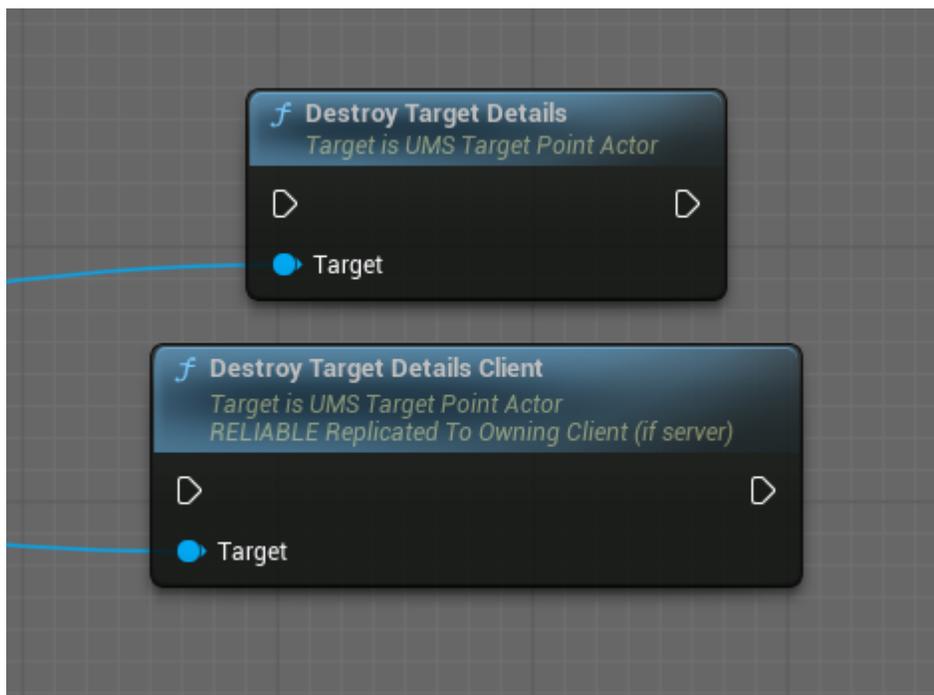
This function will remove all spawned indicators depending by Net Mode parameter which you set when call “**StartScanning**”:

- If “**Local**” will clear all locally only.
- If “**Own Client**” will clear all indicators on own client.

- If “**Multicast**” will clear all indicators on all connected players.

In New version 1.2 From UE 5.6 and newer, this function, clear scan effect and found targets depending on net mode which was selected when the scanning process started with “**Start Scanning**” function.

Also added the possibility to remove a custom number of concrete indicators which you want



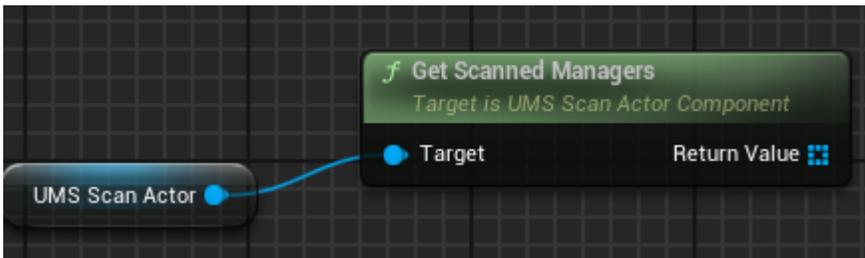
depending on selected Net Mode: “**Destroy Target Details**”(work locally) and “**Destroy Target Details Client**” (work Online), both called from indicator/target reference.

“**Destroy Target Details Client**” - This function works for every online Net Mode by automatically analyzing which Net Mode was selected on Begin of Scanning and activating the correct replication for destroying the Target. You should know this function

should be called all the time from Client only, because Targets are only on Client Machine.

Also the last example is in the case when Scan end delegation was called, because you have direct access to managers which return you the delegation, but you also can do all this without delegation by using the next new function.

The function “**Get Scanned Managers**” returns the same thing as delegation “**On Scanner Spawned**”, the array of indicator managers, inside of which have an array of spawned indicators/targets with which you should work, update/remove (Note: This pure function work only on single player mode, on others modes it will be empty).



Finally, thank you for purchasing my product and I wish you an easy job, in the future this

product will improve and for detailed help you can contact (xp710@mail.ru), or (<https://discord.gg/6TkUFZMnRe>).