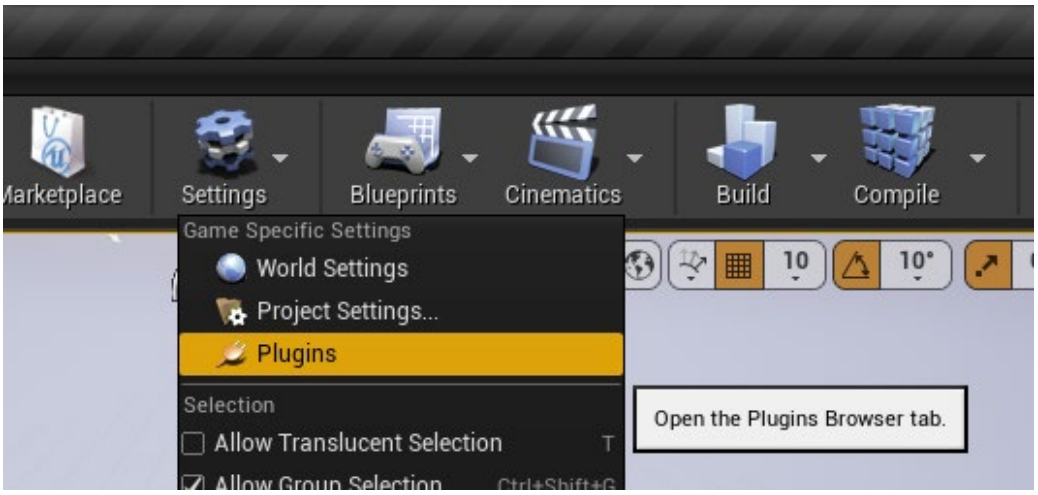
Monitor Utilities (MonitorUtils) Manual.

1 - Installation.

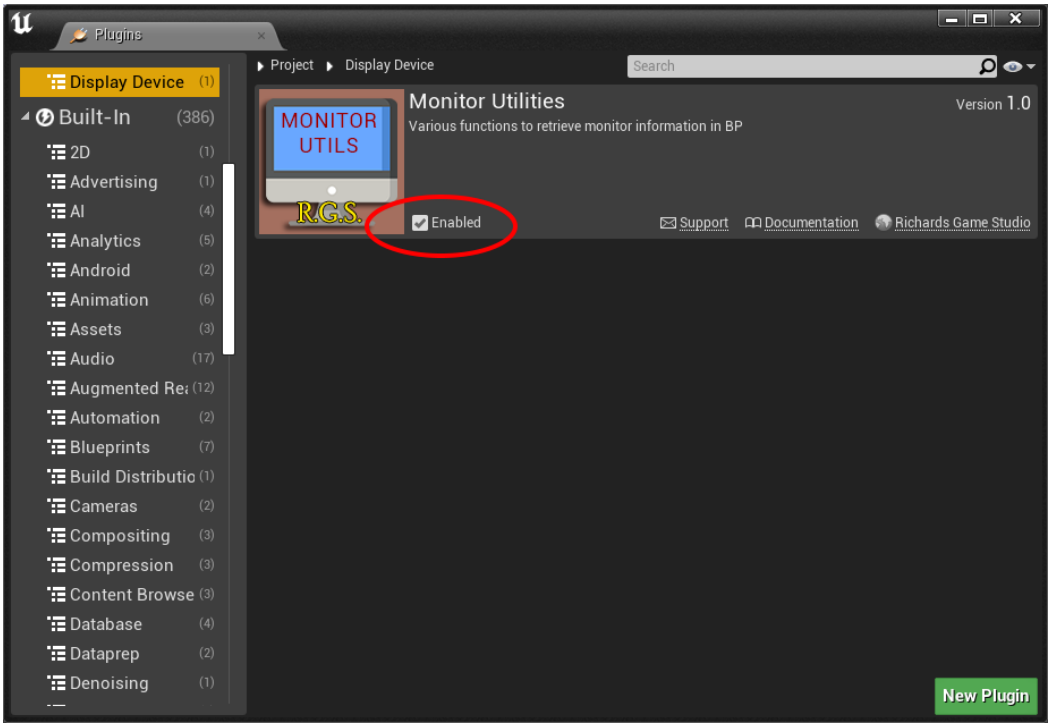
In the Epic Game Launcher, go to the Library section in the Unreal Engine menu. Locate the Monitor Utilities plugin in the Vault and select “Install to Engine”.

Select the engine version (4.27) and select Install. The plugin will now be installed to the Unreal Engine, which may take some time.

After the installation is finished, launch the engine and select a project (or start a new one). Once the project has loaded, select Plugins in the Settings dropdown menu.

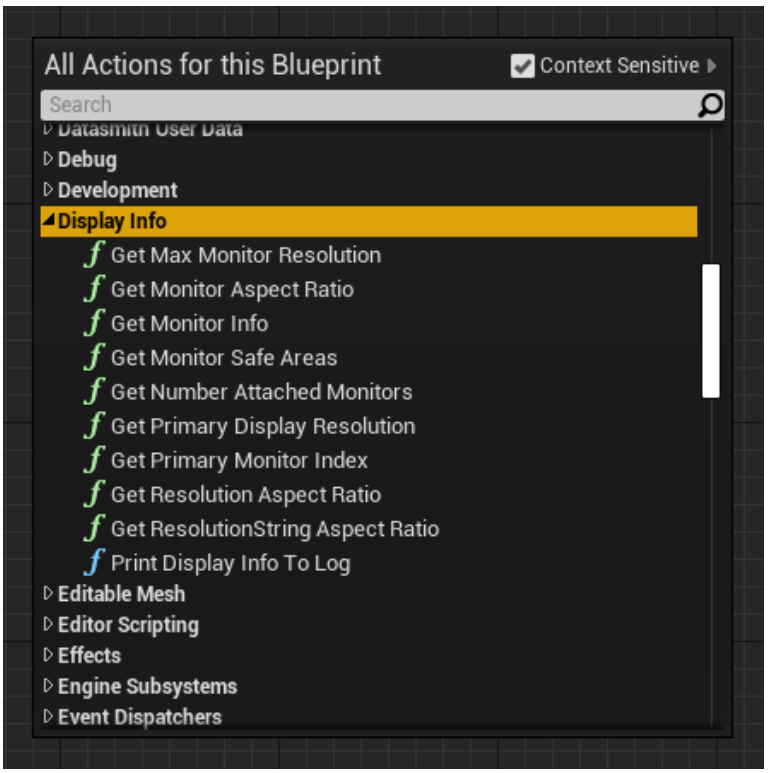


A new window will open with all the installed plugins. Locate the Monitor Utilities plugin, by typing its name in the Search box or by scrolling to Display Device in the list on the left. Click on Enabled to enable the plugin and restart the editor.



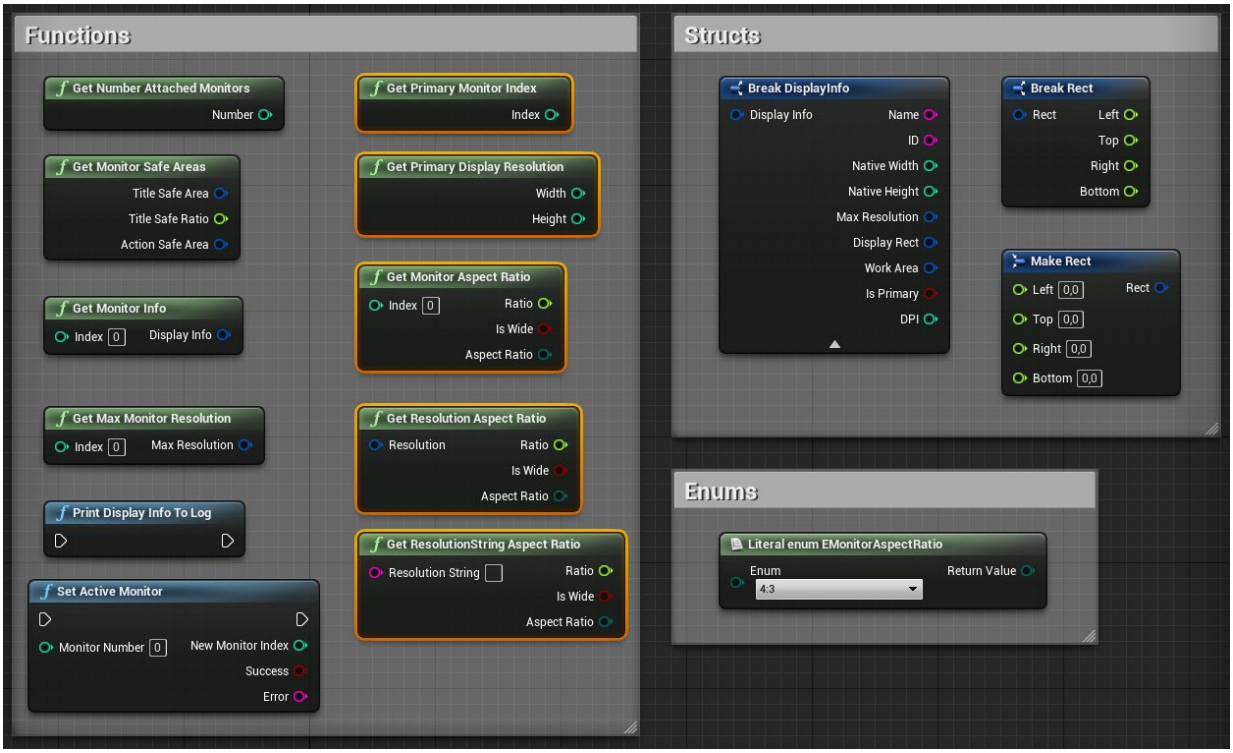
2 - Where can I find the nodes?

All the Blueprint nodes are located under the header “Display Info”.

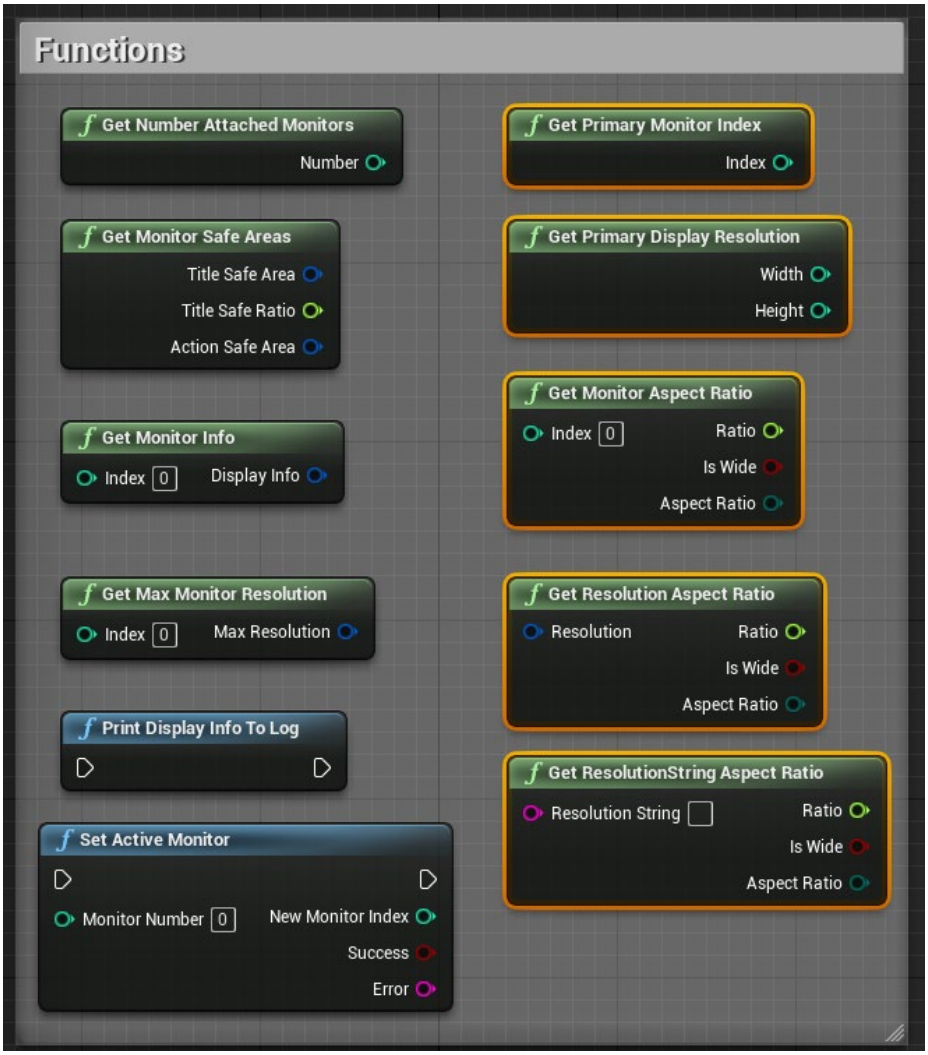


3 - Blueprint Nodes.

Below a list of all the nodes (functions and structs).



4 – Functions.



4.1 - GetNumberAttachedMonitors.

Returns the number of attached display devices to your system.

Return: Number, type: integer.

4.2 - GetPrimaryMonitorIndex.

Returns the index in the monitor list of the primary display device.

Return Index, type: integer.

4.3 - GetPrimaryDisplayResolution.

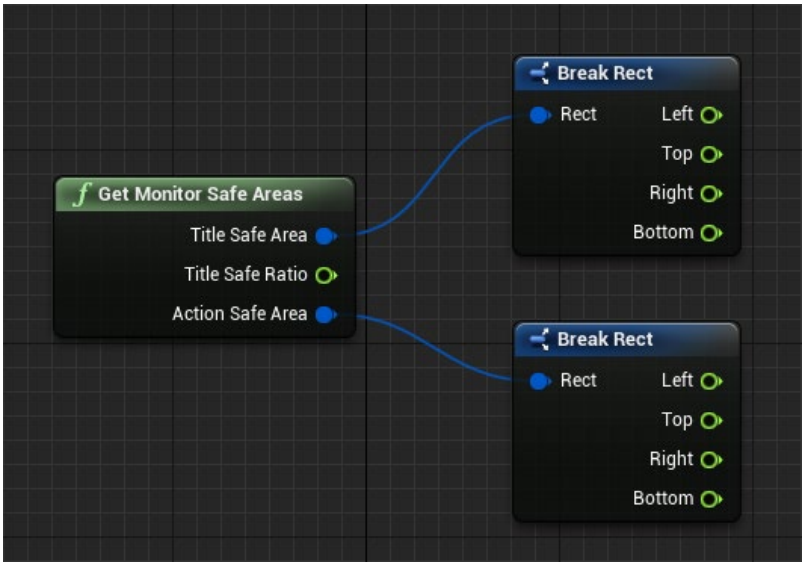
Returns the resolution of the primary display device.

Return: Width, type: integer; Height, type: integer.

4.4 - GetMonitorSafeAreas.

Returns the title safe area, the title safe ratio and the action safe area. If your display device does not support the safe areas (function returns for both areas (0,0,0,0)), use the ratio.

Return: TitleSafeArea, type: Rect; TitleSafeRatio, type: float; ActionSafeArea, type: Rect.

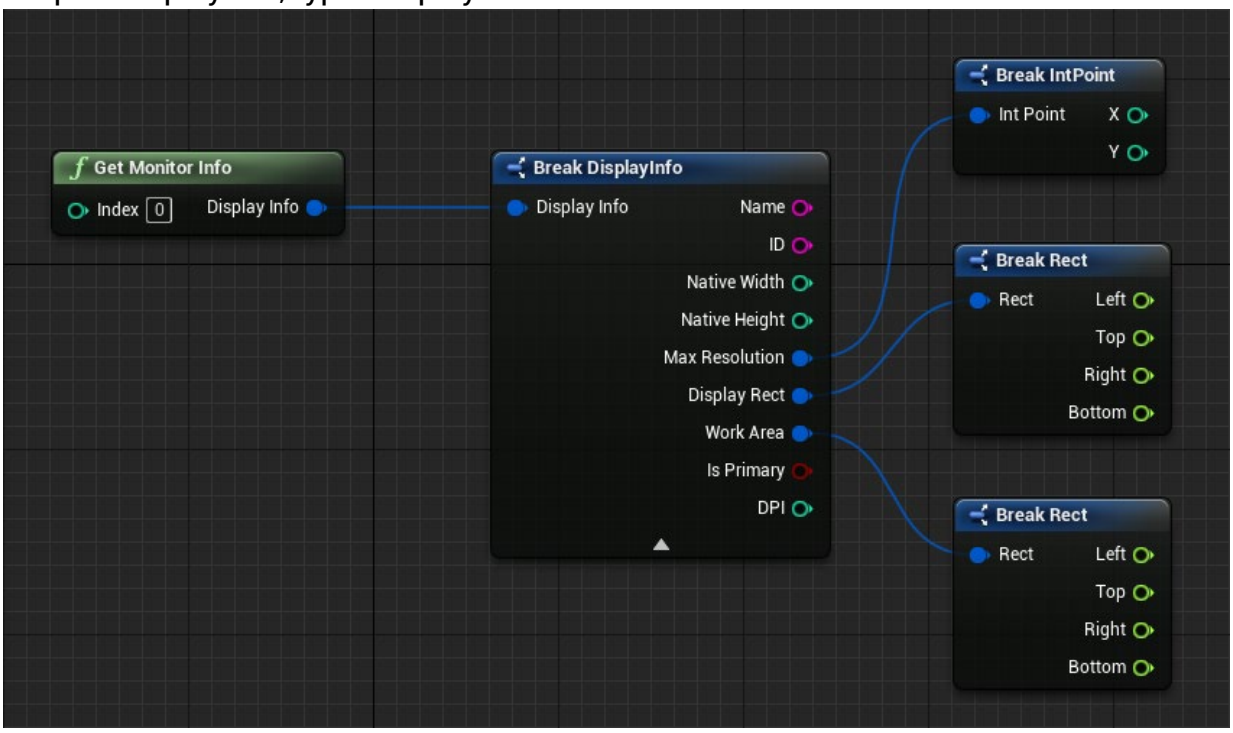


4.5 - GetMonitorInfo.

Returns info about an attached display device.

Input: Index, type integer, default 0: Index of the display device in the monitor list.

Output: DisplayInfo, type: DisplayInfo.

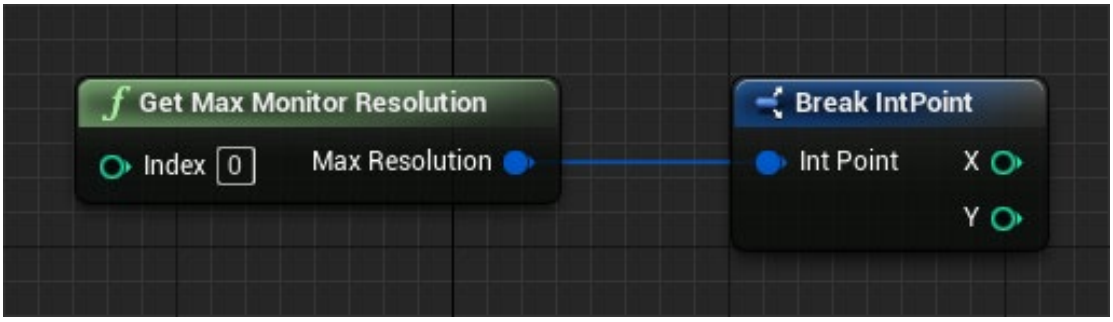


4.6 - GetMaxMonitorResolution.

Returns the maximum resolution of an attached display device.

Input: Index, type integer, default 0: Index of the display device in the monitor list.

Output: MaxResolution, type: IntPoint.



4.7 – GetMonitorAspectRatio.

Returns the aspect ratio of an attached display device.

Input: Index, type integer, default 0: Index of the display device in the monitor list.

Output: Ratio, type :float; IsWide: bool; AspectRatio, type: EMonitorAspectRatio.

4.8 – PrintDisplayInfoToLog.

Prints the display info to the Output log.

```
LogInit: Display metrics:
LogInit:   PrimaryDisplayWidth: 1280
LogInit:   PrimaryDisplayHeight: 1024
LogInit:   PrimaryDisplayWorkAreaRect:
LogInit:     Left=0, Top=0, Right=1280, Bottom=994
LogInit:   VirtualDisplayRect:
LogInit:     Left=0, Top=0, Right=1280, Bottom=1024
LogInit:   TitleSafePaddingSize: X=0.000 Y=0.000 Z=0.000 W=0.000
LogInit:   ActionSafePaddingSize: X=0.000 Y=0.000 Z=0.000 W=0.000
LogInit:   Number of monitors: 1
LogInit:     Monitor 0
LogInit:       Name: IVM46DF
LogInit:       ID: MONITOR\IVM46DF\{4d36e96e-e325-11ce-bfc1-08002be10318}\0001
LogInit:       NativeWidth: 1280
LogInit:       NativeHeight: 1024
LogInit:       bIsPrimary: true
```

4.9 – GetResolutionAspectRatio.

Returns the aspect ratio of a given resolution.

Input: Resolution, type: IntPoint.

Output: Ratio, type :float; IsWide: bool; AspectRatio, type: EMonitorAspectRatio.

4.10 – GetResolutionStringAspectRatio

Returns the aspect ratio of a given resolution.

Input: Resolution, type: ResolutionString (WWWWxHHHHwf; WWWW = width; HHHH = height; wf = windowed/fullscreen).

Output: Ratio, type: float; AspectRatio, type: EMonitorAspectRatio.

4.11 – SetActiveMonitor

EXPIRIMENTAL!!!!!

Sets the active monitor.

Input: Monitor Number (first monitor = 0), type integer.

Output: Success, type: bool; NewMonitorIndex, type: integer; Error, type String.

If Success is true then NewMonitorIndex contains the new monitor, else if Success is false, Error contains an errormessage.

5. Structs & Enums.

5.1 - Rect struct.

Used to describe a rectangle.

Members:

Left: float.

Top: float.

Right: float.

Bottom: float.

5.2 - DisplayInfo struct.

Used to describe monitor (display, display device) information.

Members:

Name: string.

ID: string.

Native Width: integer.

Native Height: integer.

MaxResolution: IntPoint.

DisplayRect: Rect.

WorkArea: Rect.

IsPrimary: Boolean.

DPI: integer.

5.3 – EMonitorAspectRatio enum.

Used to describe the aspect ratio of a display device or a resolution.

Values:

4:3 / 5:4 / 16:9 / 16:10 / Custom.

6. Sample Project

You can download a sample project at:

Download Sample Project.

Unzip the project in the folder where your other Unreal projects are located and run the project in Unreal 4.27.

It contains a blueprint called MonitorUtilsSampleBP which shows all the nodes at work.

7. If you like it and want more.

If you like this plugin and you want more, you might consider to buy us a coffee at:

Buy me a Coffee

8. Change log.

V1.0 First Release.

V1.1 Added IsWide check to GetMonitorAspectRatio and GetResolutionAspectRatio.

V1.2 Added GetResolutionStringAspectRatio.

V2.0 Added SetActiveMonitor.