User Manual

Editor Tool:

To create a Easy Spline Path 2D you can do so from the scene hierarchy contextual menu, under '2D Object/EasySplinePath2D' or by adding the script as a component to an existing GameObject.

Types of Nodes: There are 4 types of nodes: Auto, Locked, Free and Corner.

Auto: This type automatically adjust its handles to provide a smooth curve. When set to this type the handles of the node are hidden.

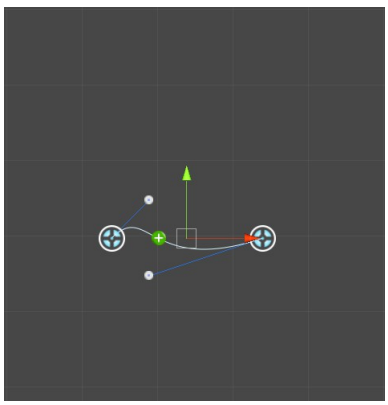
Locked: When set to this type the handles of the node are always aligned, when one is moved the other adjusts.

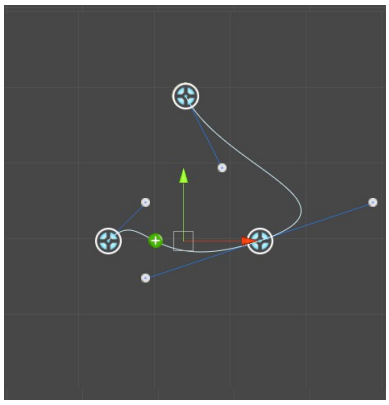
Free: In this type the handlers are not locked, they can be moved independently from one another.

Corner: The corner type has its handles set to the position of the anchor node, when two adjacent nodes are set to this type the segment between them is a straight line.

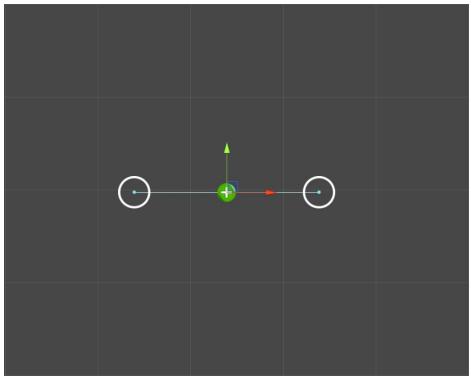
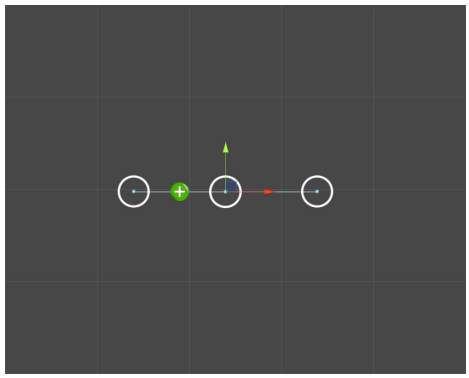
Adding Nodes:

You can 'Shift+LeftClick' anywhere in the scene to add a new node that will be connected to the last node, and its handles will be adjusted according to the type of node of each one.

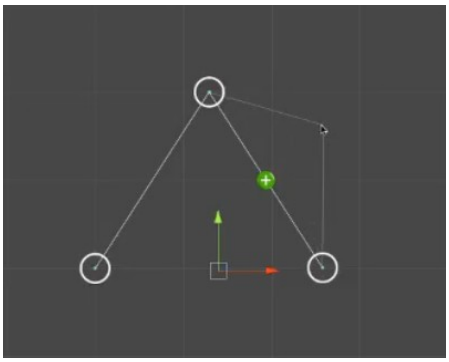




You can add a new node in a segment by clicking in the 'plus' icon that appears on the midpoint of the segment that is closest to the mouse cursor. This will. split the segment in half.

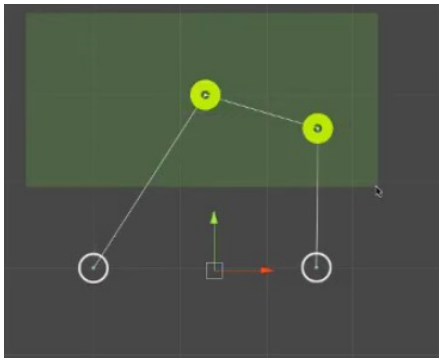
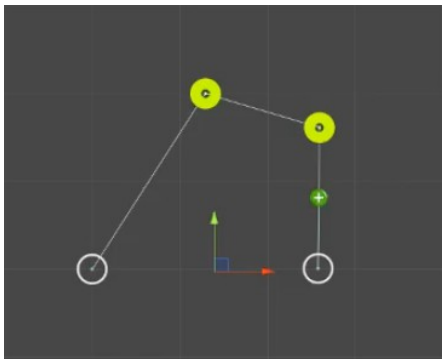



You can add a node in a segment by pressing 'Shift+Ctrl+Click'. This will add a new node in the segment that is closest to the mouse cursor. If you just press and hold 'Shift+Ctrl' a preview of the predicted line will be displayed (in case of curve lines it could be a bit off).




Selecting Nodes

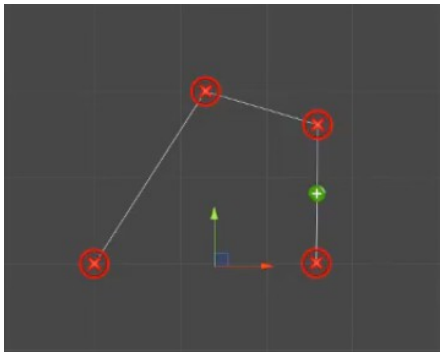
Nodes can be selected by "Shift+LeftClick and drag" a square selection and/or by 'Shift+LeftClick' on individual nodes.
Any given node in the selection can be deselected by 'Shift+LeftClick' on them.
The selection can be cleared by clicking anywhere in the scene or by pressing the "Esc" key.

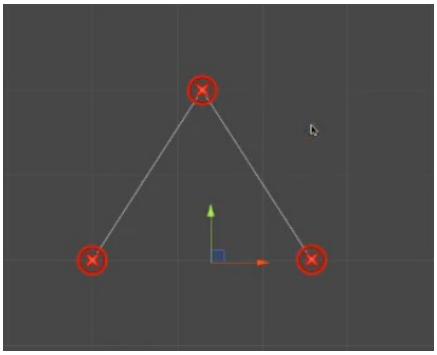



Removing Nodes

By pressing and holding the 'Ctrl' key all nodes will change to a deletion icon, while holding the key 'LeftClick' on any node to remove it from the spline.

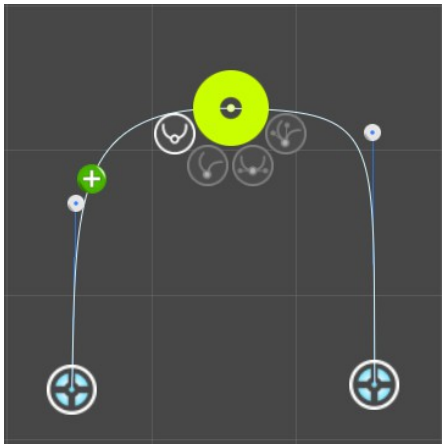
Another way to remove nodes is to select them and press the 'Delete' key.

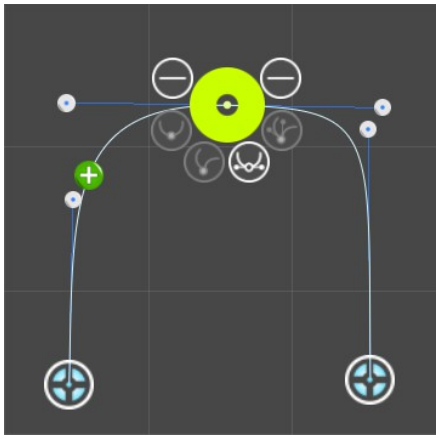




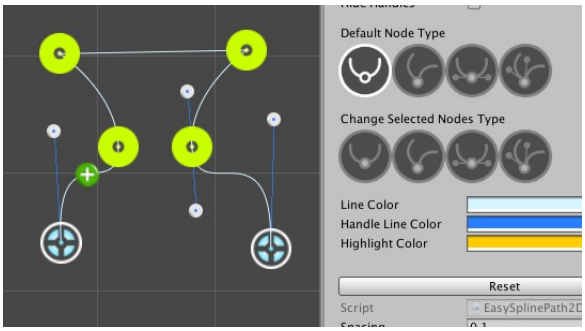
Features

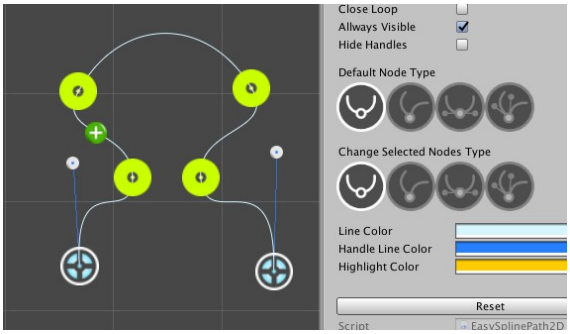
By clicking on an individual node its icon will change and buttons will appear around it. There will be 4 buttons for changing the type of the node. In node types that support handles a button for each handle to 'fold'/'unfold' it will also appear.



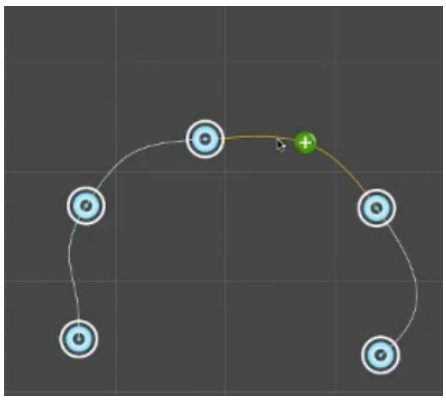


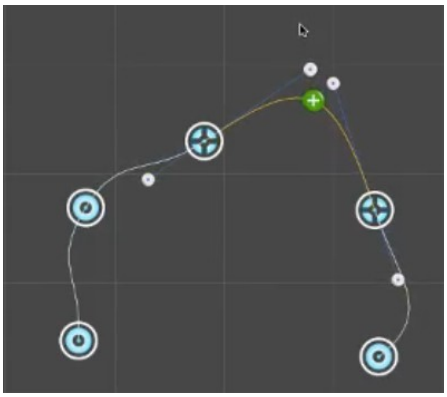
When there are multiple nodes selected an option will appear on the inspector tab where you can change the type of all of them at the same time.





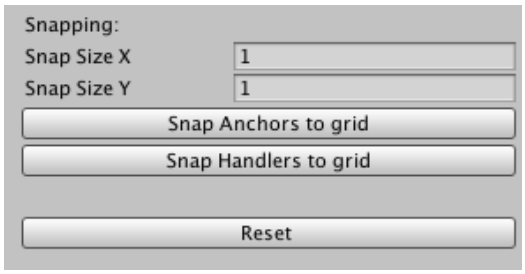
While holding the C key, when the mouse cursor is close enough to the spline the nearest segment will highlight, this means it can be clicked and dragged to modify its shape. Note that adjacent nodes will react to this sometimes changing its type accordingly.





Snapping

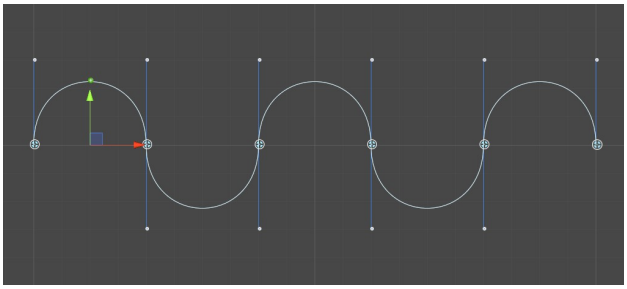
From the inspector panel the size of the snapping grid can be set for X and Y axes separately.

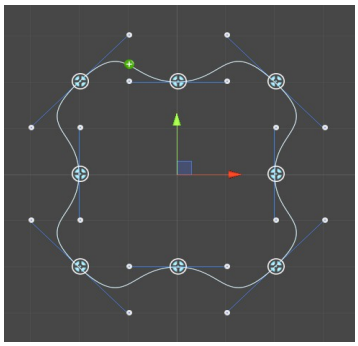


The buttons “Snap Anchors to grid” and “Snap Handlers to grid” will move anchors and handler points respectively to the closest points in the grid. Note that for handlers to be positioned correctly their anchors must be already snapped to the grid.

Any individual points can be snapped and moved inside the grid by holding the 'V' key while dragging the point with the cursor. Note that the 'V' key must be pressed before starting to move the point otherwise it will not work. Multiple points can also be moved in this fashion if they are selected.

To add a point snapped to the grid you can 'Shift + V + Click' anywhere in the scene, and a point will be added on the grid point closest to the mouse cursor.





Inspector panel

Display Scale: This is used to scale the size of the nodes and button icons. Adjust this option to meet your needs, the bigger the scale you are working on the higher this value should be.

Close Loop: This will add a segment between the last node and the first node, and the respective handles. While this mode is active you can only add nodes in segments.

Always Visible: While this option is on the curve of the spline will be visible when you deselect the GameObject that contains it. This is useful when working with multiple EasySlinePath2D objects.

Hide Handles: While this option is active the handles and handle lines will be hidden.

Default Node Type: The type of node that will be used when creating a new nodes. The option selected will be highlighted while the others will appear grayed out.

Change Selected Nodes Type: While there are nodes selected a section will appear where you can change the type of all of them at the same time with it.

Line Color: The color of the spline. This color will be also used when 'Always Visible' is on.

Handle Line Color: The color of the lines that connect the handles with the nodes.

Highlight Color: The color of the segments when they can be draged and curved.

Snap Size X: The size of the snapping grid in the X axis.

Snap Size Y: The size of the snapping grid in the Y axis.

Snap Anchors to grid: This button will move all anchor points to their closest points in the grid.

Snap Handlers to grid: This button will move all handler points to their closest points in the grid.

Reset: This button will remove all the nodes from the Spline and reset it to is starting state.

Spacing: The calculations of the positions along the curve are calculated by dividing the spline in equidistant points, this is the distance between each said point. This needs to be adjusted to the scale you are working on. The smaller the scale, the lowest this value will be.

Resolution: The higher this value is the higher the accuracy when calculating position in the curve, and so does the cost of said calculation.

For support contact to: dcassetsuy@gmail.com