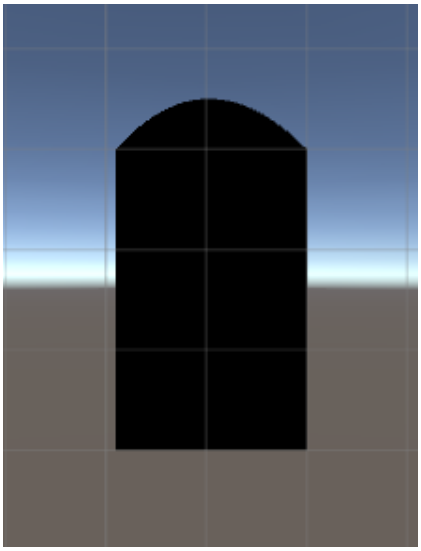
This package allows the creation of 2D and 3D curved grounds using Bezier and Lagrange curves.

2D Curve



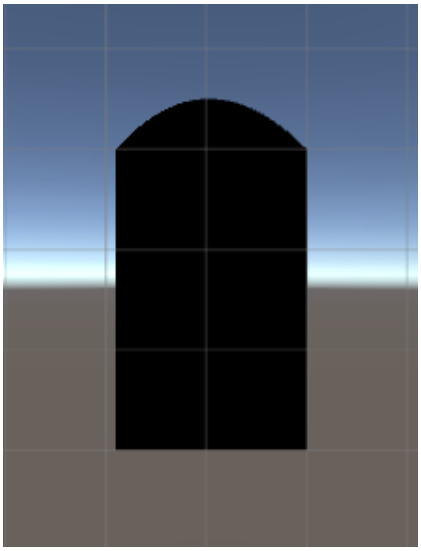
A 2D curve is a curve located in a geometric plane (Z = 0 at the creation) which uses 2D physics.

3D Curve

A 3D curve is a 2D curve with a roof, a 3D curve uses 3D physics.

create a curve

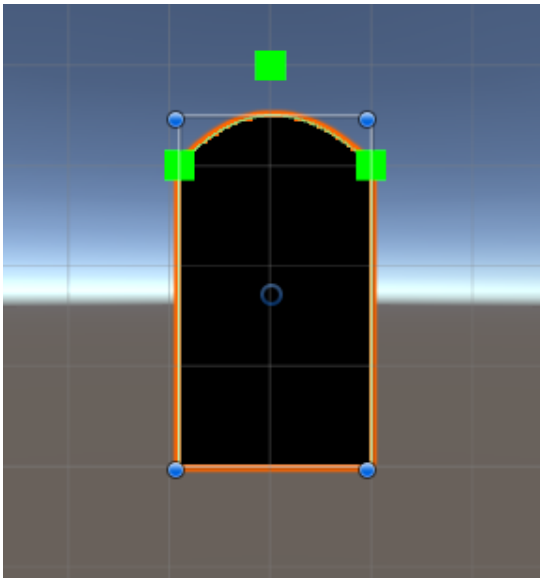
to create a 2D (or a 3D) curve, in the menu bar click on gameObject -> 2D Object -> 2D Curved Ground (resp gameObject -> 3D Object -> 3D Curved Ground) a new gameObject will appear in the center of the unity world with coords (0, 0, 0).



Edit a curve

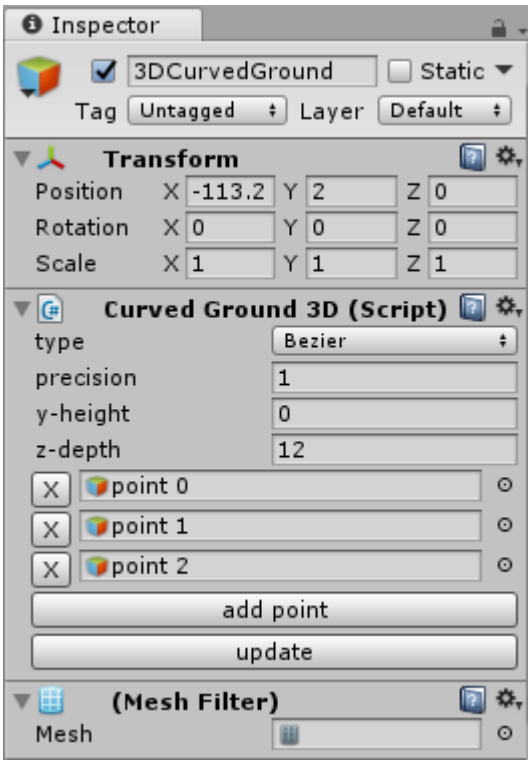
You can edit a curve after selecting it by using the scene and the inspector GUIs:

Scene GUI:



Use this first interface to edit the position of the curve anchor points, after all the necessary modifications click on the "update" button located in the inspector GUI.

Inspector GUI:



This second interface permits to edit many parameters of the curve, these parameters are:

type: which is the type of the curve, either Bezier or Lagrange.
precision: the precision used when rendering the curve mesh, the higher this value is the higher the number of the vertices used to render this curve is.
y-height: the y value where the surface of the curve extends to.
z-depth: only for 3D curves it is the z value where the upper surface of the curve extends to.

“X” and "add point" buttons are used to delete and add anchor points.

"update" button is used to update the curve, click on this button if you want to see any applied modification on the curve.

Example:

Run the demo scene to see 2 Unity spheres rolling along a 2D curve.

Coming soon:

- The ability to define a curve using other methods like b-splines, NURBS ….
- The ability to create custom curves by defining classes that inherit specific classes.