

## Animated Bezier Flow of Particles for Legacy Animation

*A tutorial for Unity 3, or so called "legacy animation" you can watch this instruction in audio-video format with pictures here: [youtube.com/watch?v=Byj54PDyfWg](https://youtube.com/watch?v=Byj54PDyfWg)*

To create "Animated Bezier Flow of Particles" you must follow two simple steps:

1. Create new empty Game Object
2. Open Components menu, click on Effects, select MathArtCode, than "Animated Bezier Flow of Particles"

Note that a particle system as well as Animation components were added automatically.

In Hierarchy window you can see that two positioning control points were created automatically. Each positioning control point can have one or two curve angle related control points embedded into it in the hierarchy.

Now let's look at the editor scene window. A curve can be seen on any of the control points. When you click on the control point a corresponding game object is selected automatically. You can change position of it to move control point it is attached to. Note that while control point is selected particle system component is not playing inside editor scene.

You can add points to the curve. New points are added in the same direction last point looked at. Each new positioning control point will create three new game objects which are required for Unity 3D animator to work. Sadly, it is the only non-programming way to achieve "in Editor" animatable curves. If speed is what you require, please acquire our Static Bezier Particles Flow Curve product – it is performance optimized in every possible way including one Game Object per curve and pre-baked rasterized flow curve, yet it is animatable only from code.

You can destroy positioning control points deleting corresponding Game Objects. You must not remove first or last positioning control point, also you must not delete angle related control points. Undo will help you at all time to restore curve state and components.

Let's now create a simple hart alike curve composed of four positioning control points and give a red color to it.

Create an animation in project window.

Now let's animate our hart. Please create and name, a new animation file inside "project" window.

Go to the game object containing "Animated Particles Flow Curve" component – root of our Bezier curve.

Select animation you just created for that object.

Look at the component inspector settings. You can set up the time for the default animation. Also you can name animation clip. Now you can push "Prepare Animation Clip" button.

Open Animator window, click to show only animated elements, select created animation clip (which is called the same name as your currently selected animation is or "Animated Particles Flow" if no

animation files were provided). Click on time position you wish to edit. For each Game Object be it an angle or position related control point we can edit animation curve directly or simply move control points around the scene.

To preview animation of each control point one can click on “play” icon in animator window having corresponding game object selected.

To preview entire curve flow one must select game object with Particles System on it and click on “play” icon in animator window.