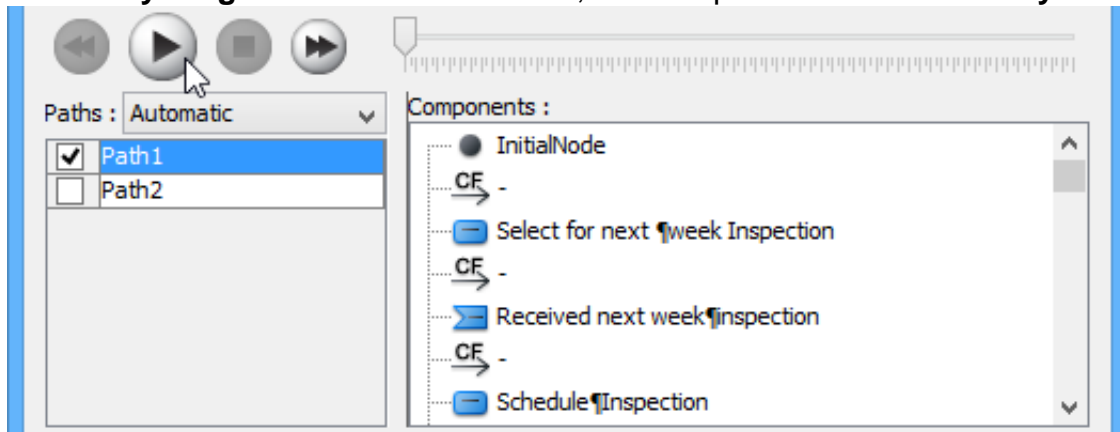# How to animate an Activity Diagram

The [UML tool](#) of Visual Paradigm supports animating [activity diagrams](#). The animation lets you see clearly the flow of actions in a control flow.

1. Select **Modeling > Animation** from the toolbar.
2. In **Activity Diagram Animation** window, select a path and then click **Play**.
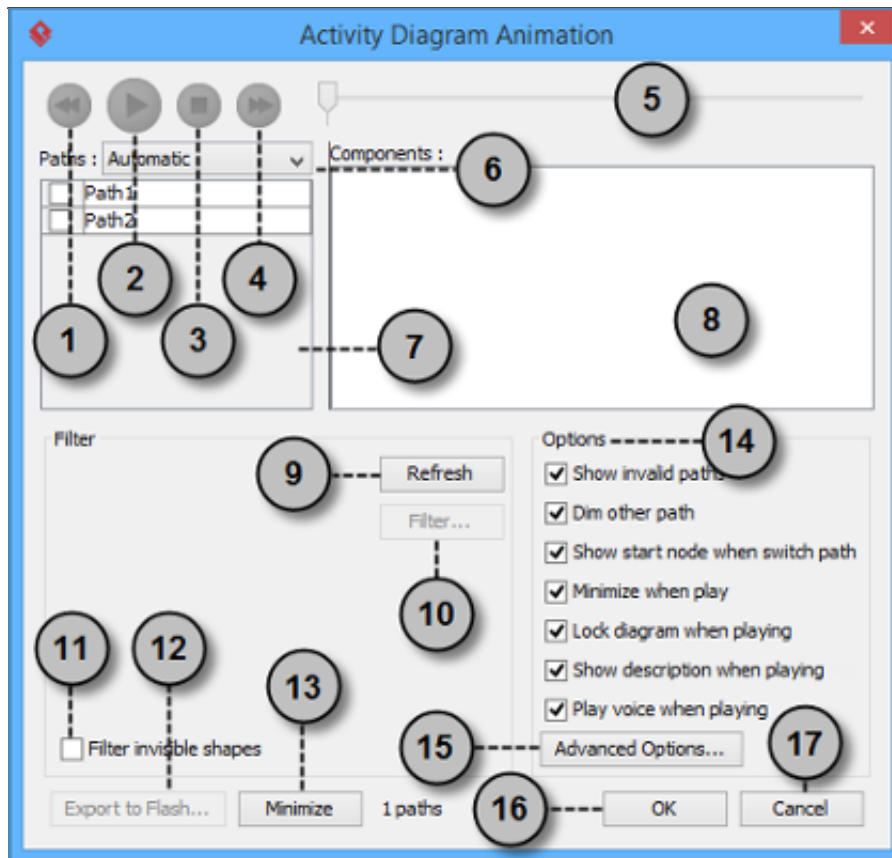

Note: Animation can also be started by using any of the ways below:

- Right-click on the diagram background and select **Utilities > Animation...** from the popup menu.
- Click the drop-down menu of **Modeling Tools** and select **Animation...** on the toolbar.

Overview of Animation

The **Activity Diagram Animation** window will pop out after clicking **Animation...**. This window is where you can select an execution path to play an animation.
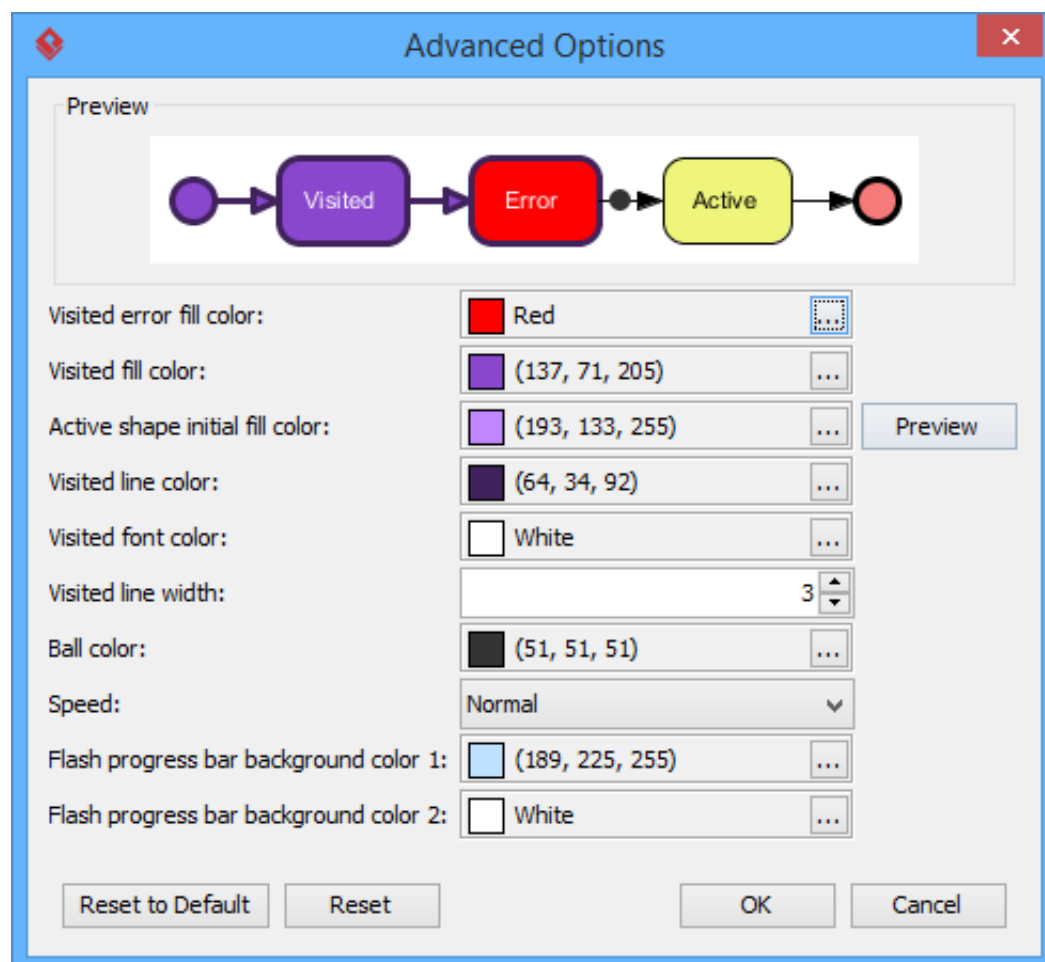
No.	Name	Description
1	Backward	Move one shape backward in the flow.
2	Play	Play or continue to play the animation with Animation minimized.
3	Stop	Terminate the animation.
4	Forward	Advance to the next shape in the flow.
5	Slider	It is used for controlling the flow of animation.
6	Paths	It provides two ways of producing animation for the possible paths. **Automatic**: It is chosen by default. This helps you to detect all possible paths automatically. **Manual**: Choose when you want to select the possible path(s) manually.
7	Paths list	It lists all possible ways of executing an Activity. By default, paths are named as Path1, Path2, and so forth. You can rename them by double clicking on them and giving meaningful names.
8	Components list	It displays all components of

No.	Name	Description
		the selected path. Pressing on a component will highlight the first shape of the chosen path until the chosen shape in the diagram.
9	Refresh	It is used for re-identifying the paths base on filter assignment and diagram content.
10	Filter...	It helps removing the non-selected paths by specifying the end result of fork nodes.
11	Filter invisible shapes	A shape can be set invisible on a diagram, or become invisible due to belonging to an invisible layer. By checking this option, invisible shapes will be ignored when calculating paths. By unchecking, invisible path will be included when calculating paths. By unchecking, you will see a black ball fly on diagram without attaching to the invisible shape(s) when executing a path.
12	Export to Flash...	Select an output path for exporting this diagram's animation to Adobe Flash.
13	Minimize	Click to minimize this window.
14	Options pane	The Options pane helps you to configure animation. **Show invalid paths**: It lists not only the valid and selected path, but also the invalid and non-playable paths in the **Paths list**. **Dim other path**: It dims the components that are not a part of the selected path. **Show start node when switch path**: Jump to the first node of the selected path or keep staying at the current viewing field. **Minimize when play**: It minimizes this window when playing an animation. **Lock diagram when playing**: It locks the diagram when

| No.	Name	Description
		playing the animation to prevent accidental editing. **Show description when playing**: It shows description of shape at the bottom right of diagram when playing the animation. **Play voice when playing**: Voice can be recorded as descriprion of model element. Check this if you want to play recorded voice when running animation.
15	Advanced Options...	It provides the color and speed options for animation.
16	OK	Click this button to confirm the settings and close Animation.
17	Cancel	Click this button to close Animation without saving the editing.

Advanced Options

Name	Description
Visited error fill color	The background color of visited shape that

Name	Description
	cause an error. An error means the flow object that causes a path invalid.
Visited fill color	The background color of visited shapes.
Active shape initial fill color	When playing an animation, a tiny black ball will traverse the chosen path, from one shape to another. When it reaches a shape, the shape will render with a transition effect that means transiting from an initial color to visited fill color. This option manages the initial background color for visiting shape.
Visited line color	The line color of visited shapes.
Visited font color	The font color of visited shapes.
Visited line width	The thickness of visited shape's border.
Ball color	The color of ball that goes through a path during animation for indicating the progress of flow.
Speed	The pace of animation.
Flash progress bar background color 1	The background color for the top of progress bar in exported Flash movie.
Flash progress bar background color 2	The background color for the bottom of progress bar in exported Flash movie.

Naming a Path

The **Paths** list displays all possible animation paths of your diagram. Each path represents a possible way to go through the diagram. By default, paths are named as Path1, Path2, and so forth. It is recommended to name to the path(s) for better clarification.
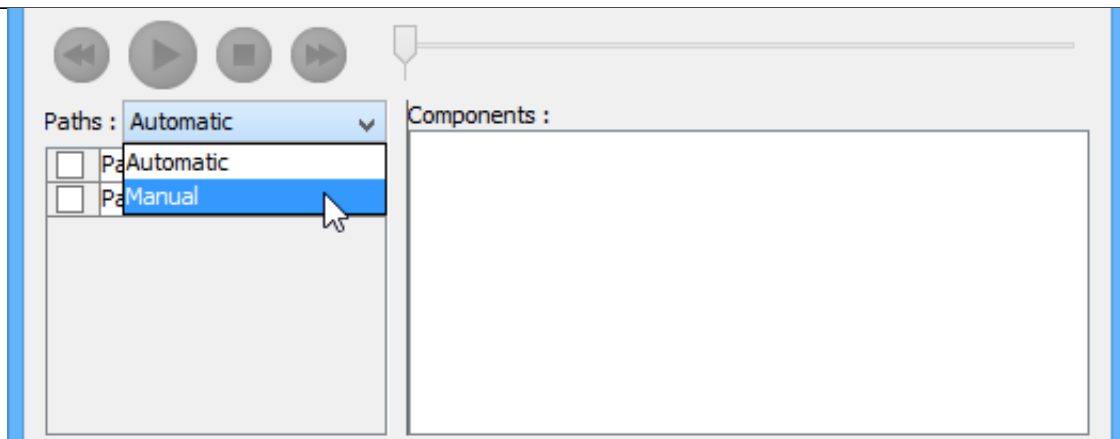
1. To rename a path, move the mouse pointer on a path in the list and double click on it.
2. Enter the name of path.
3. Press **Enter** to confirm editing.
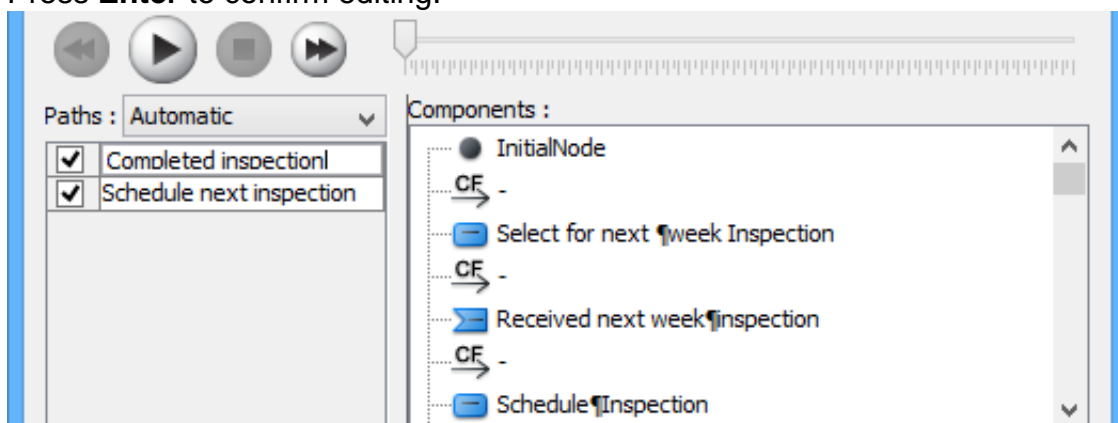
Creating a Manual Path

In **Activity Diagram Animation** window, all paths are listed in **Paths list** by default. However, you can manage the flow of animation with your own choice. To create a manual path:

1. Select **Manual** in **Paths**.

2. Press **Add Path** to insert a new path.
3. Select the shapes that are shown on the **Components list** to direct the flow of animation.
4. Click **OK** to confirm editing.

Handling Decision

You should choose an outgoing flow when there is more than one option in the flow. Different decisions will lead to different forks and make a different outcome for the flow of animation. Make either decision to view the outcome.
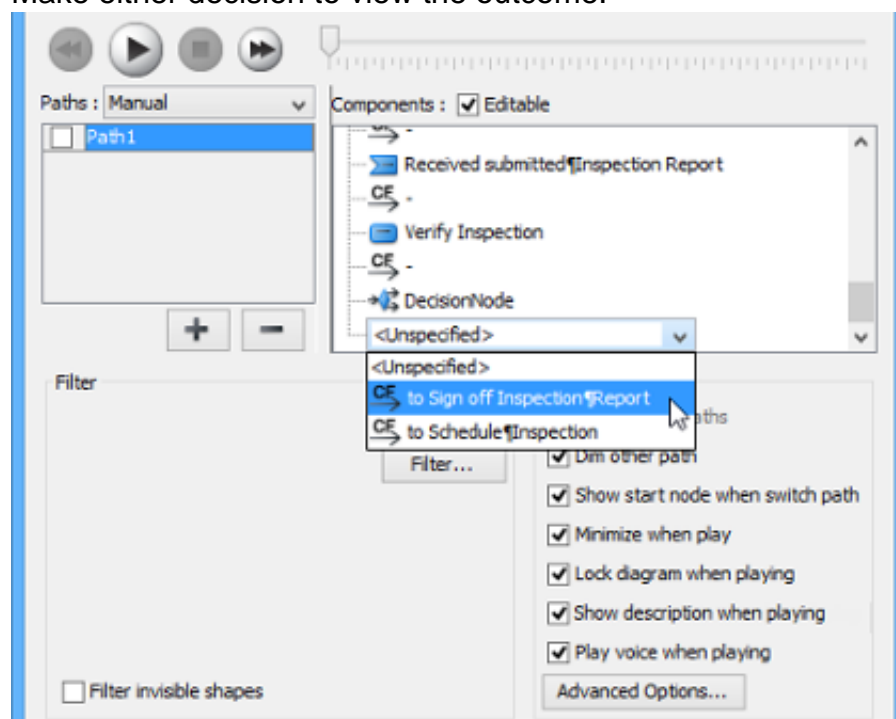
Reviewing an Animation

1. When everything is ready, click **Play** to start the animation of the selected path.
2. After click **Play**, **Activity Diagram Animation** window will be minimized to the bottom of your diagram with several buttons and a slider revealing on it.

Butto n	Name	Description
	Backward	Move one shape backward in the flow.

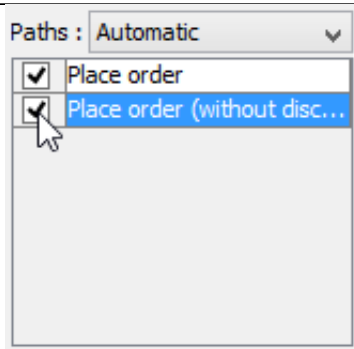| Button	Name	Description
⏸	Pause	Temporary stop playing the movie. Press **Play** to continue to play.
▶	Play	Play or continue to play the animation.
⏩	Forward	Advance to the next shape in the flow.
⏹	Stop	Terminate the animation.
🏃	Maximize	Maximize **Animation**.

3. When the animation starts, a black ball will appear at beginning of path and traverse through the path until the end.
4. When the black ball reaches a shape, the shape will turn into purple.
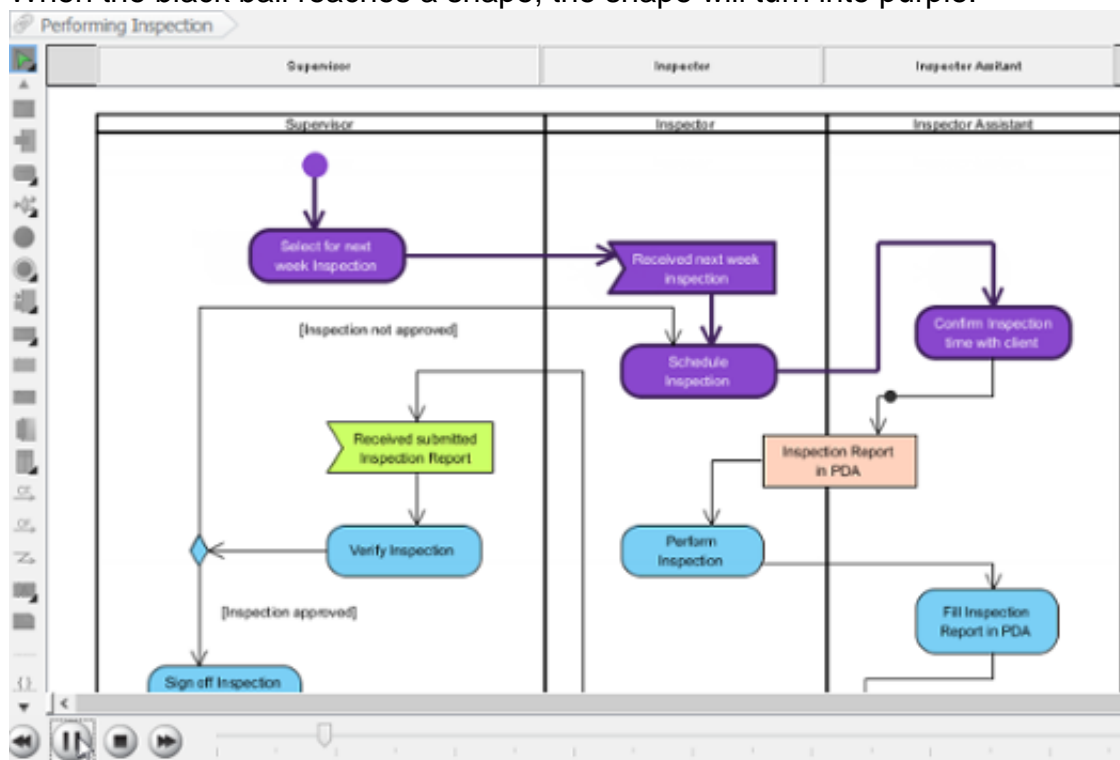
Exporting an Animation

You can export the animation to Web contents so that you can play it externally in another computer just by playing in a Web browser.

1. From the **Paths** list in the **Animation** window, select the execution paths to export as Flash movie.

2. Click the **Export to Flash...** button at bottom left. This shows the **Export to Flash** window. Here is a description of the **Export to Flash** window.
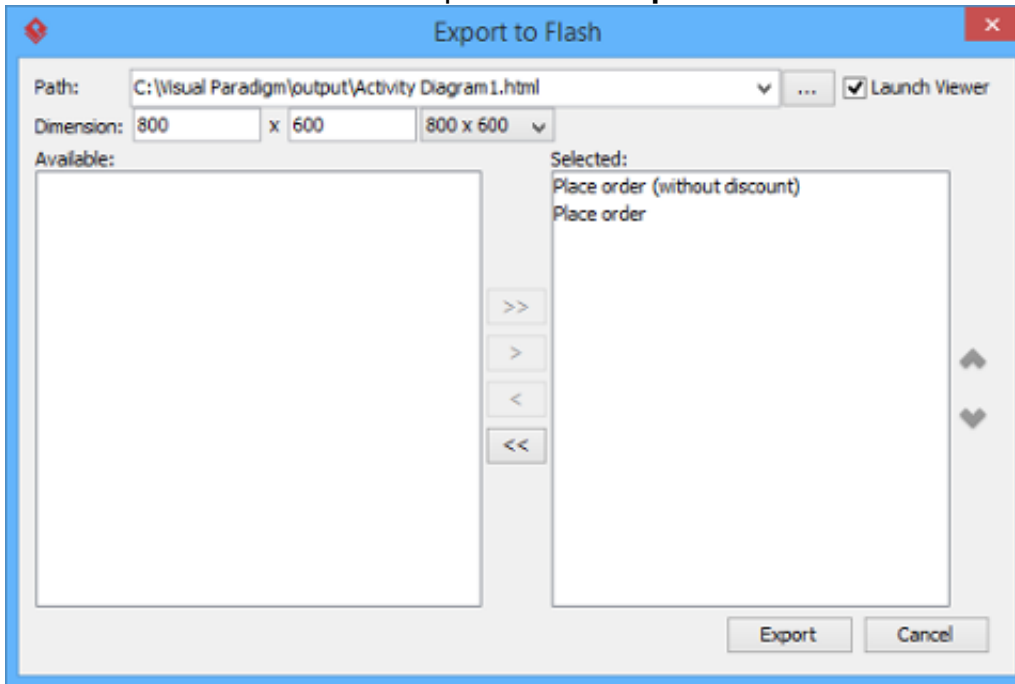
Here is a description of the **Export to Flash** window.

Part	Description
Path	The path of the exported HTML file. Flash movie file (.swf) will also be exported to the same folder as the HTML file.
Launch Viewer	When checked, default web browser will automatically start and play the exported Flash movie.
Dimension	The width and height of viewing region of Flash.
Available	Available paths that can be selected to export to Flash movie for animation.
Selected	Selected paths to export to Flash movie for animation.

3. An HTML web page will be exported. Specify the path of the HTML file. Note that the Flash movie files (.swf) will be exported to the same folder as the HTML file.
4. Choose or enter the dimension of movie if necessary. Note that the dimension determins the size of viewable region instead of the size of diagram.
5. Click **Export**. Open the HTML file in the web browser to play the movie. If there are more then one path being selected, you can click on the drop down menu at top right corner and select another path to play with.