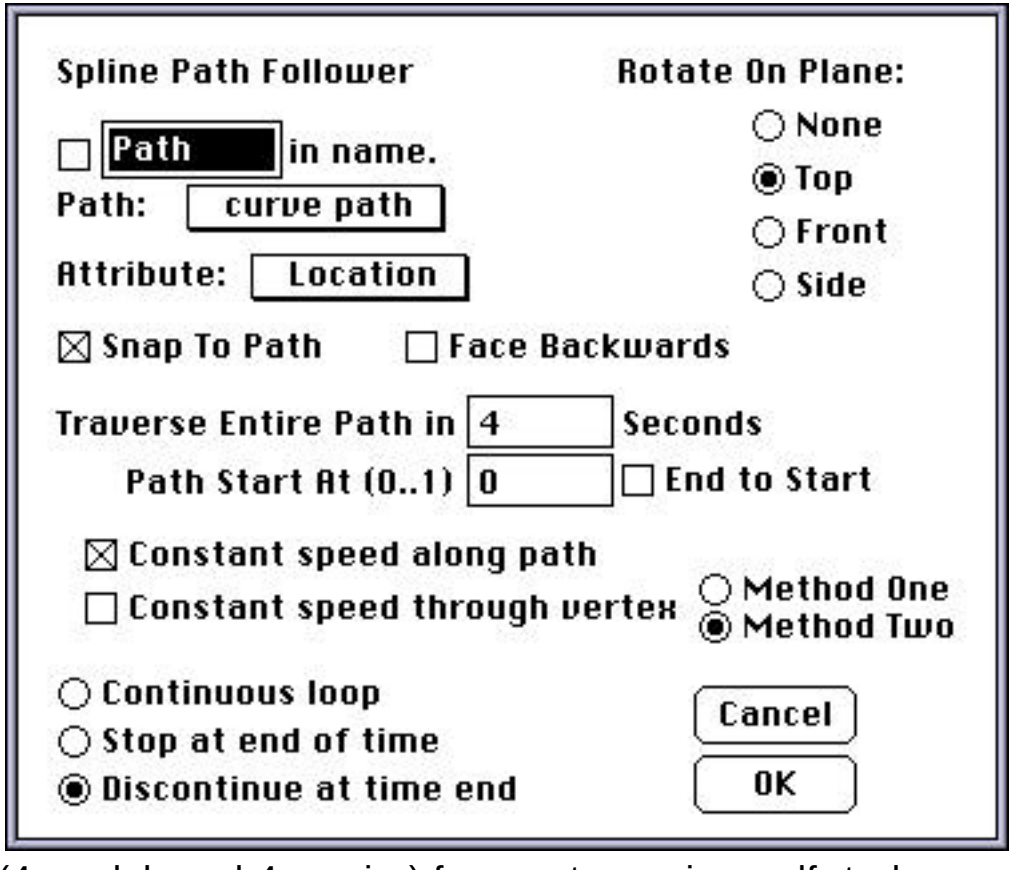
## Pather Motion Control Animator

Pather is the improved version of Path animator. Pather gives you greater control over the action generated when you want to make an item (object, camera, light, or microphone) move along a path. The path must be generated in, and may only be edited in ModelPro.

Click on the part of the dialog box shown at the right to see the description of that part.




There are four examples (4 models and 4 movies) for you to use in a self-study fashion: "arrow 2Dpath" shows an arrow following a 2D path; "arrow 3Dpath" shows the arrow following a 3D path; "arrow 3Dpath alt" shows the arrow banking as it follows a 3D path (this is achieved by combining Pather and Flock); "coaster path" shows how you can make a camera follow a path with its "Look At" target ahead of the camera. This document is simply a text explanation of the controls you find in the Pather control dialog box. Pather is applied the same as all

external Attributes in Presenter: access the Attributes dialog box for the item that you want to move along a path; drop the Pather animator icon into the Attributes bin; double-click on the expanded icon in the bin to access the control dialog box.

The Pather control dialog box is named **"Spline Path Follower".** There are many controls employed through check boxes, radio buttons, pull-down menus, and data fields.

**"[Path] in name." data field/check box and "Path:"** pull-down menu

The data field at the top with the word [Path] is for your convenience in finding the spline path in your data base ("Path:" pull-down menu just below). With this check box "on", only items in your data base with the word "Path" in the name will appear in the "Path:" pull-down menu. If your desired path has a different name (say "curve"), simply type "curve" into the data field and turn on the check box; the "curve" item will show in the "Path:" menu.

The item that you choose from the "Path:" menu should be the spline path that you want follow.

**"Attribute:" pull-down menu**

The "Attribute:" menu has two items to choose--Location and Point-at. If you are choosing to move an object along a path, then you would select "Location". If you are choosing to move a Camera (or Light) along a path, then you may select either "Location" or "Point-at" (Look at the "Coaster path.mdl" to see how you might want to use both "Location" and "Point-at" on a Camera.

**"Rotate On Plane:"** radio buttons

There are four ways to make the item rotate around its rotation point as it moves along the path--None, Top, Front, and Side. Only one plane (or none) may be selected for rotation. Most often you will want to make objects rotate in the Top plane, so that the "front" of the object always points "forward" along the path.

If the **"None"** radio button is "on", then the item will not rotate on any plane; it will maintain its orientation as it traverses the path.

If the **"Top"** radio button is "on"--first the item will adopt an orientation parallel to the xz-plane. Then, as it moves along the path, the item will rotate on the y-axis, staying perpendicular to the path as viewed in the Top orthogonal view.

If the **"Front"** radio button is "on"--first the item will adopt an orientation parallel to the xz-plane. Then, as it moves along the path, the item will rotate on the z-axis, staying perpendicular to the path as viewed in the Front orthogonal view.

If the **"Side"** radio button is "on"--first the item will adopt an orientation parallel to the zy-plane. Then, as it moves along the path, the item will rotate on the x-axis, staying perpendicular to the path as viewed in the Right orthogonal view.

**"Snap To Path"** check box

If the "Snap To Path" check box is "on", then in frame at which Pather is applied, the item will jump to the start of the path.

**"Face Backwards"** check box

If you turn "on" the "Face Backwards" check box, then the item that is following the path will automatically be turned 180° on the y-axis.

**"Traverse Entire Path in [10] Seconds"** and **"Path Start At (0..1) [0]"** data fields

Enter a number in the "Traverse Entire..." data field to determine how long it will take for your item to go from start to end. This does not necessarily mean from one end of the path to the other. If you choose to enter a value in the "Path Start..." data field, the item will start at some point along the path (not at an end), then continue to the end of the path, then jump to the other end of the path and continue until it reaches the starting point; all within the time entered in the "Traverse Entire..." data field.

The value entered in the "Path Start..." data field may be between zero (0) and one (1). For example: a value of 0.5 would make the item start its journey on the path at the midway point of the path.

**"End to Start"** check box

If the "End to Start" check box is "on", then the item will move in the reverse direction as it traverses the path.

**"Constant speed along path"** check box

If this check box is "on", then the item will move along the path at a constant speed, regardless of the severity of the turns. Otherwise, the item will move more quickly on smooth curves and straight sections, and more slowly around sharp curves.

**"Constant speed through vertex"** check box and **"Method One"** & **"Method Two"** radio buttons

If the "Constant speed..." check box is "on", then the item will move at a constant speed through each vertex along the path. The motion of the item will be smoothed base on one of two internal algorithms--Method One and Method Two.

**"Continuous loop", "Stop at end of time",** and **"Discontinue at time end"** radio buttons

If the **"Continuous loop"** radio button is "on", then the item will traverse the path in the time that you determine, then jump to the starting point and repeat the traversal. The item will continue this looping action until the End Time of the animation. The item will remain stationery at the point along the path where it is at the End Time.

If the **"Stop at end of time"** radio button is "on", then the item will traverse the path in the time that you determine, then remain stationery at the end of its journey.

If the **"Discontinue at time end"** radio button is "on", then the item will traverse the path in the time that you determine, then jump to the starting point and repeat the traversal. The item will continue this looping action until the End Time of the animation. The item will remain stationery at the point along the path where it is at the End Time.