

Using Advanced Path Finder



Licensing

Path Finder  is not available unless you also have a DMU Space Analysis license..



This procedure explains how to use the advanced features of **Path Finder** to find the most direct path, devoid of collisions, for a move activity. **Path Finder** looks at the information regarding other resources and parts, and finds a path for a move.

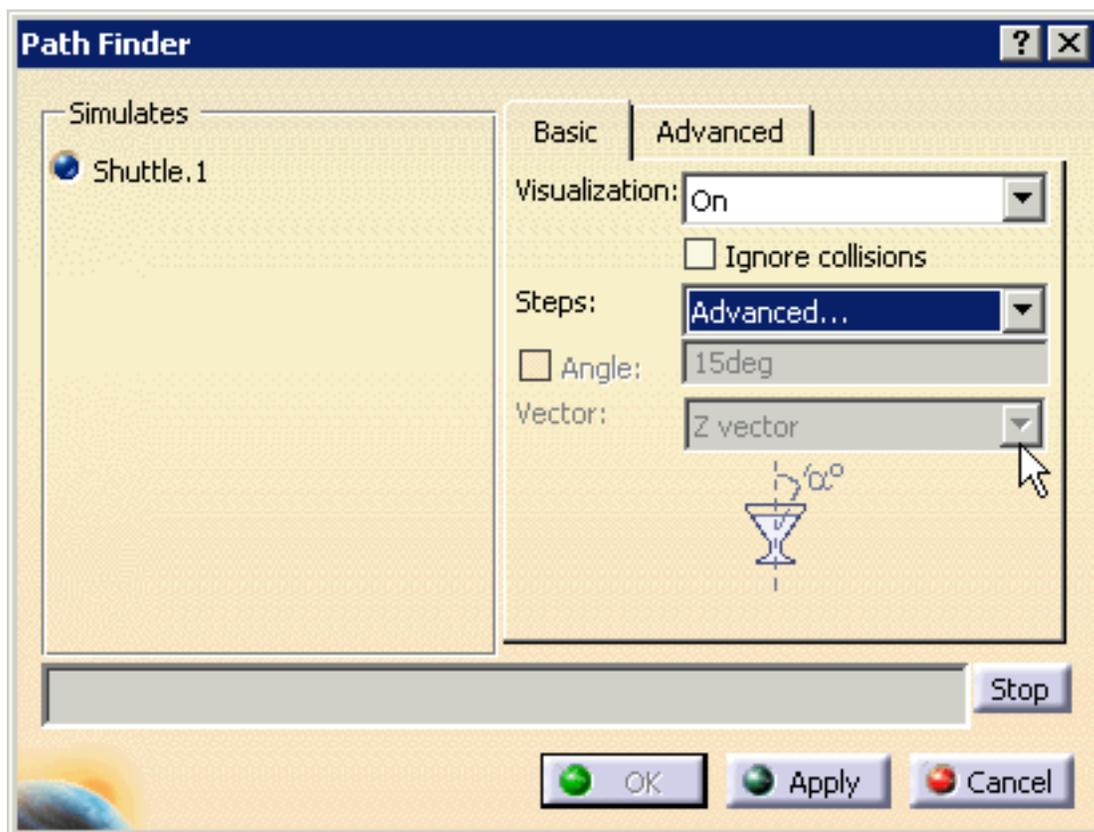
This procedure also explains how to use path finder to find a path for one segment.



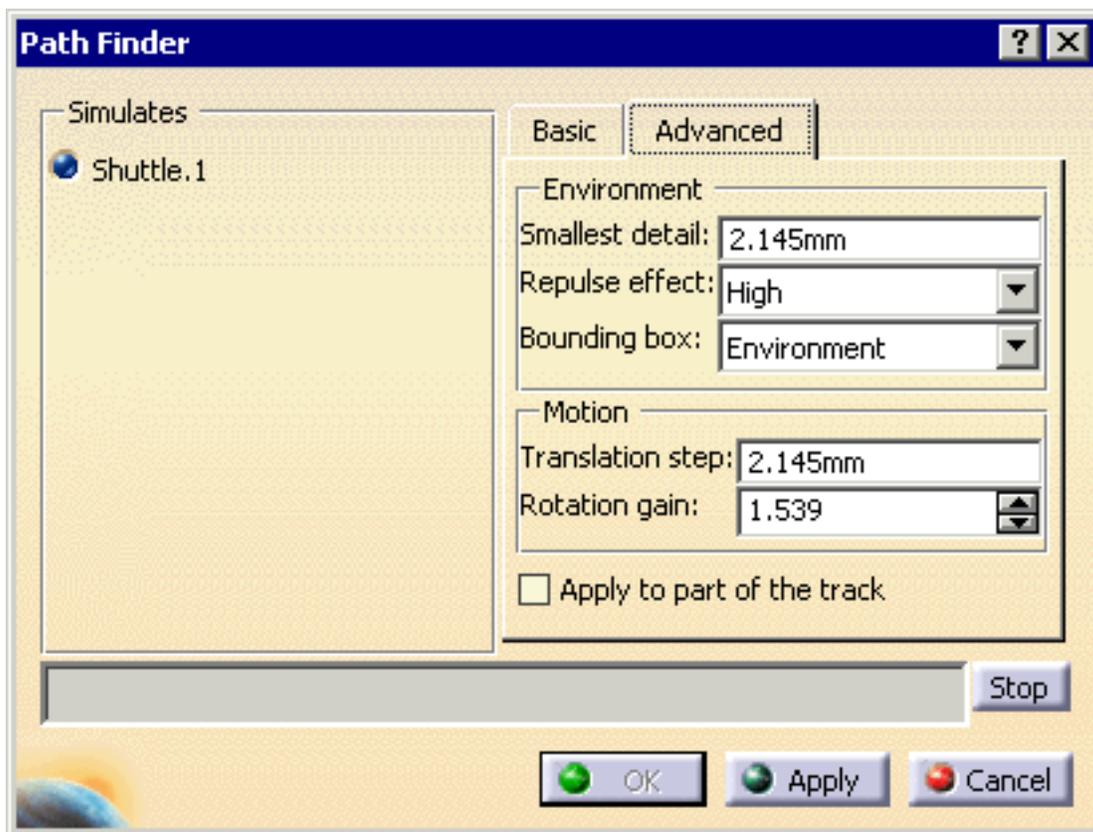
To perform this procedure, you must have the PPR tree visible and a process loaded. The move activity should have already been created with a start and end point.



1. Click Path Finder .
2. Select the move activity for which you wish to use **Path Finder**. The **Path Finder** dialog box appears.
3. On the **Basic** tab, in the **Steps** list, select **Advanced**.



4. Select the **Advanced** tab.

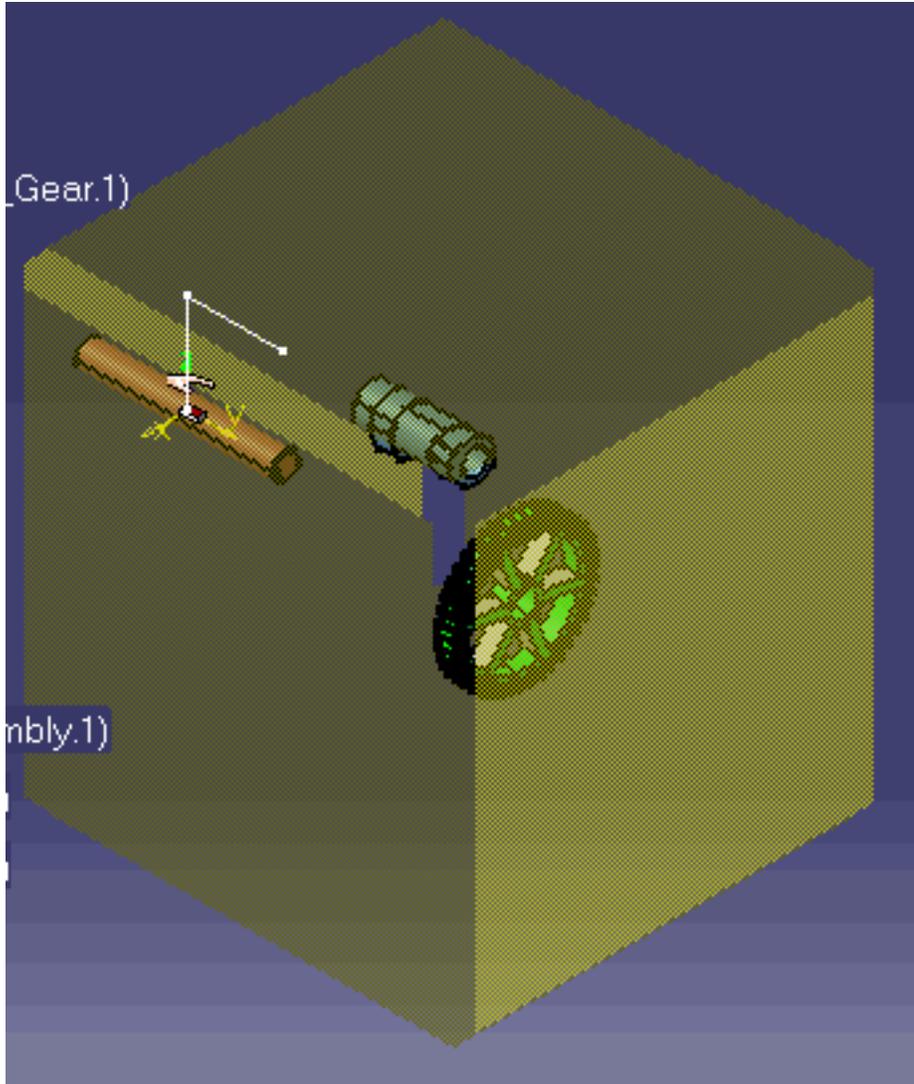


5. Use the table below to determine the appropriate selections for the **Path Finder** dialog box:

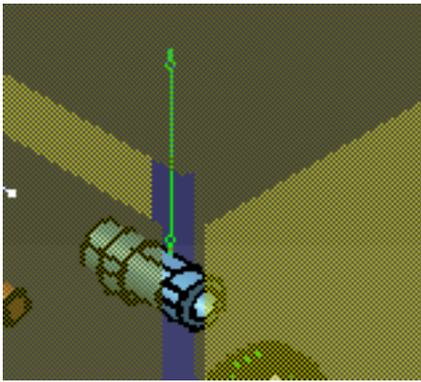
Field	Options
Environment	<p>Smallest detail (accuracy used to calculate the environment description) <i>Result:</i> The smaller the size used, the greater the memory used, and vice versa. When you use a larger size, you risk the loss of some data (e.g., if the diameter of a hole is smaller than the smallest detail size, then the hole disappears).</p>
	<p>Repulse effect: (Low, Medium, High) <i>Result:</i> The higher the repulse effect is set, the more the rotation motion is eased and the smoother the path.</p>
	<p>Resize Bounding box (the area in which Path Finder attempts to make a move.) <i>Result:</i> If the box is made smaller, the computation size is faster.</p>
Motion	<p>Translation step (unit used to define the step value in translation mode)</p>
	<p>Rotation gain (Linked to the translation step parameter. e.g.: If rotation gain value = 2, the rotation amplitude = 2 x translation step value.)</p>
Apply to part of the track	<ul style="list-style-type: none"> When you select this check box, you will be prompted to select a beginning and end segment of the track that will define the area of the track to which you want to apply Path Finder. Each shot of the concerned track should be collision-free to produce a meaningful result. Path Finder calculates each segment separately, and therefore reports First point in collision if the starting point of any segment is in collision. If the last point of the trajectory is in collision, the command is not able to reach that position, i.e. a position with collision. When you clear this check box (the default). Path Finder applies to the entire path.

6. Do you want to resize the bounding box?

- o If NO, go to [Step 9](#).
- o If YES, check the resize option and the bounding box appears on the geometry.



7. Move the arrow over the geometry until you see an arrow pointing the direction you would like to expand the box.



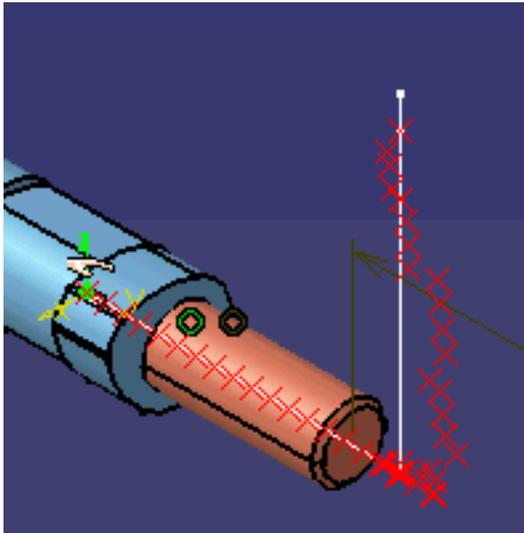
8. Depress the left mouse button and pull along the line of the arrow to expand the box.

9. On the dialog box, once the other options are set, click **Apply** to find a path.

- o If the system finds no collisions on the current path, it supplies the following message:



- o If there is a problem, **Path Finder** attempts to find an alternate route.



See [About Path Finder Messages](#) for information on the messages **Path Finder** provides and possible workarounds.

10. Do you accept the route?

- o If NO, select the **Cancel** button.
- o If YES, select the **OK** button. Selecting **OK** makes **Path Finder's** path the new track for the move:

