

# Shortest Distance Analysis

Using Revit and Dynamo



aussie BIM guru

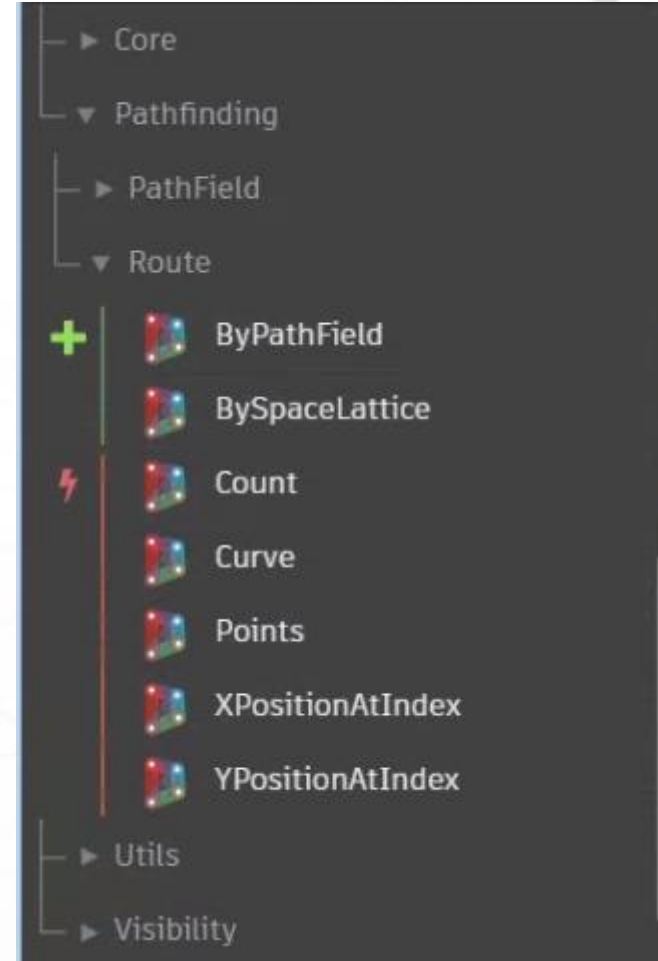
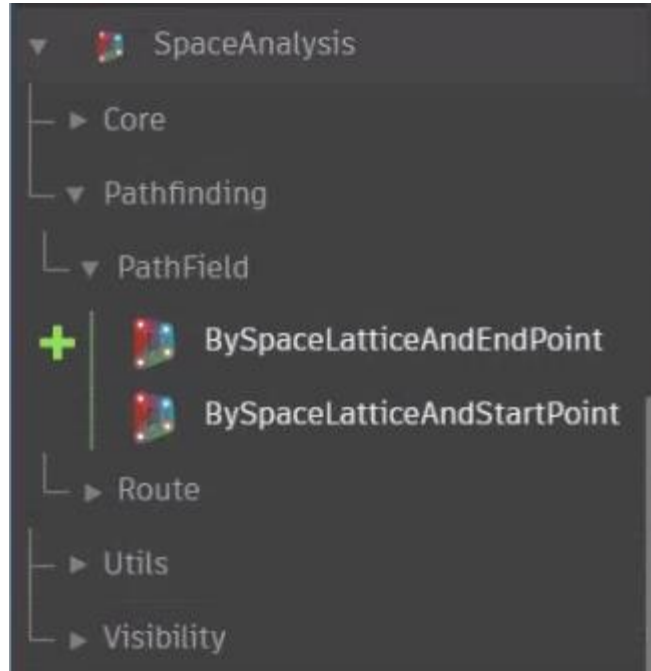
# The Goal

Find the **shortest** route between two points that is **possible**, given a range of obstructions and **barriers** along the way....



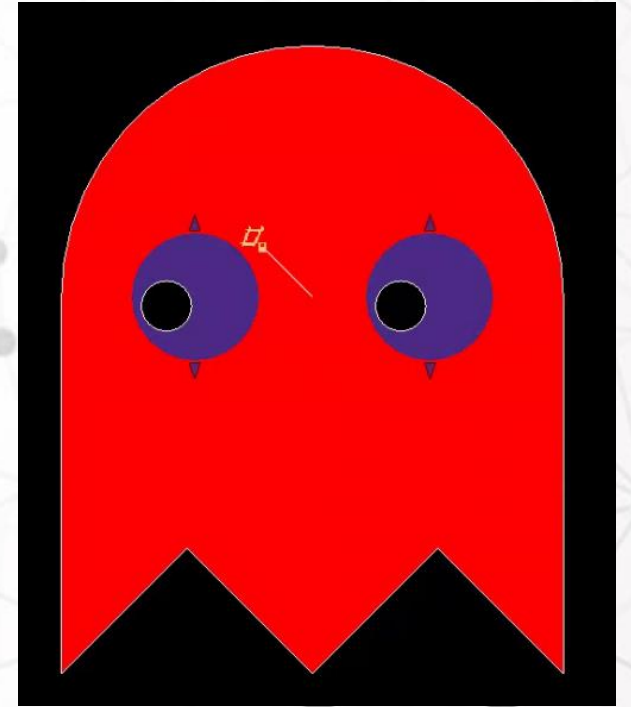
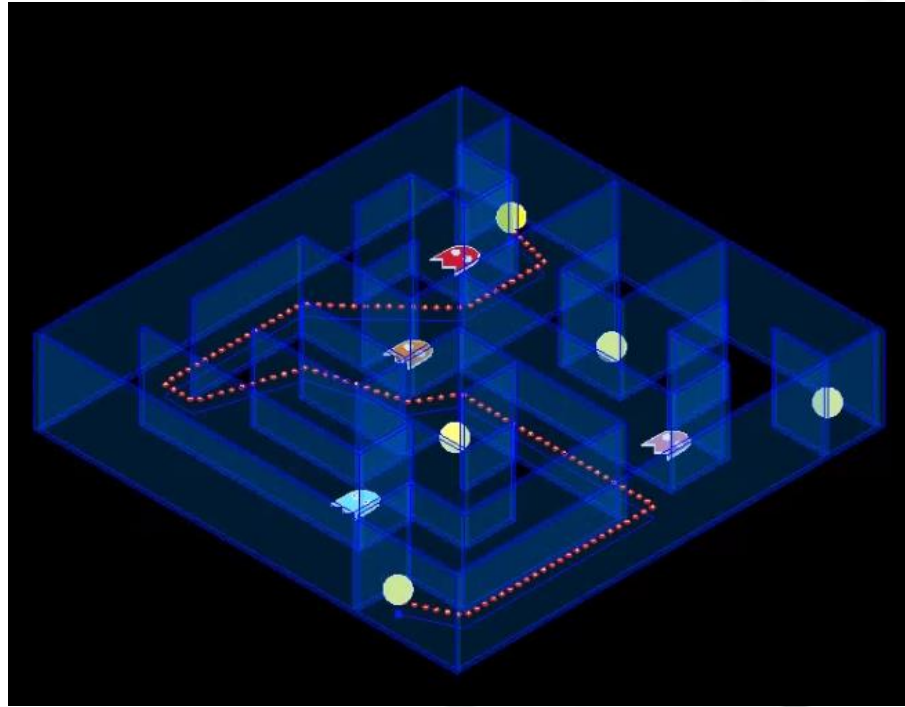
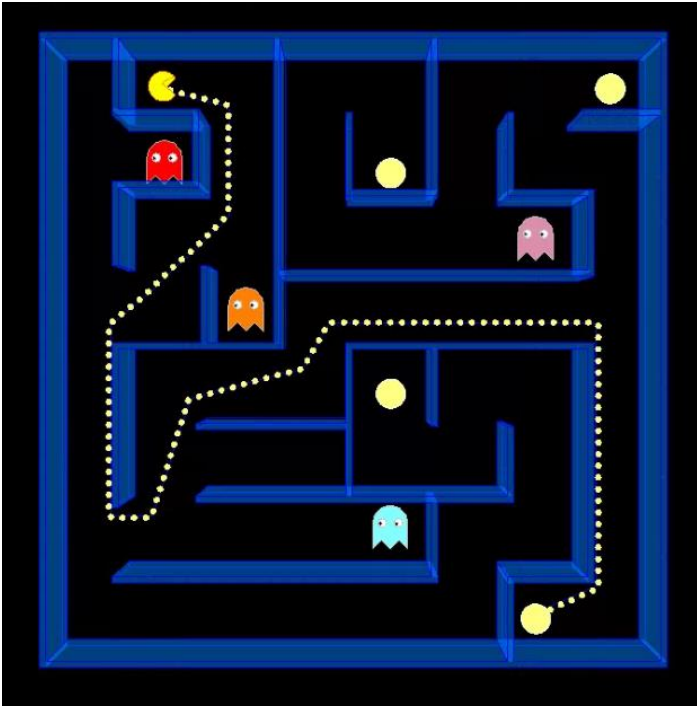
aussie BIM guru

# Space Analysis package



aussie BIM guru

# Fun Applications



aussie BIM guru

# Architectural Applications

- (c) **Class 5 to 9 buildings** - Subject to (d), (e) and (f)-
  - (i) no point on a floor must be more than 20 m from an *exit*, or a point from which travel in different directions to 2 *exits* is available, in which case the maximum distance to one of those *exits* must not exceed 40 m; and
  - (ii) in a Class 5 or 6 building, the distance to a single *exit* serving a *storey* at the level of access to a road or *open space* may be increased to 30 m.
- (d) **Class 9a buildings** - In a *patient care area* in a Class 9a building-
  - (i) no point on the floor must be more than 12 m from a point from which travel in different directions to 2 of the *required exits* is available; and
  - (ii) the maximum distance to one of those *exits* must not be more than 30 m from the starting point.



# Other Applications

Town/master planning  
Pedestrian flow optimization  
Vehicle flow optimization  
Equipment movement paths  
Clearance checking  
Fire extinguisher ranges



aussie BIM guru



**Without further ado...**



aussie BIM guru



