



[03]

Node Anatomy

Detailed Function Controls

THE PRESENTER



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SAFE HARBOUR

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AGENDA



01.

15 Minute Presentation:
Node Anatomy



02.

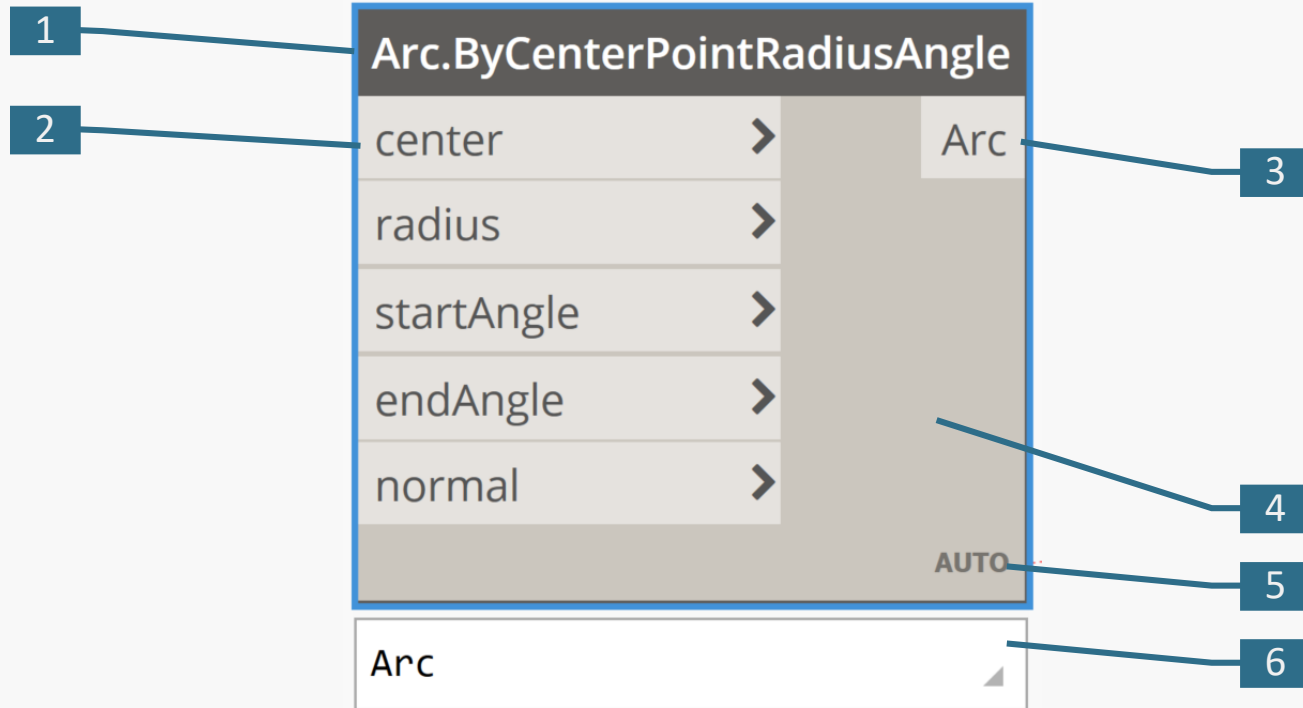
Questions & Answers



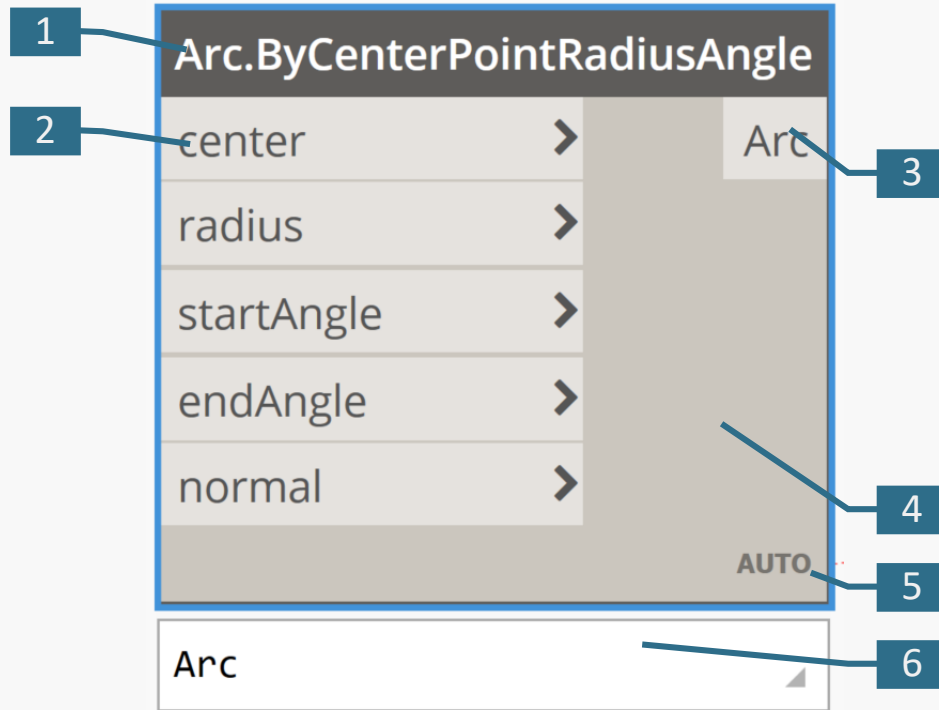
03.

Bonus:
Lists

Anatomy of a node

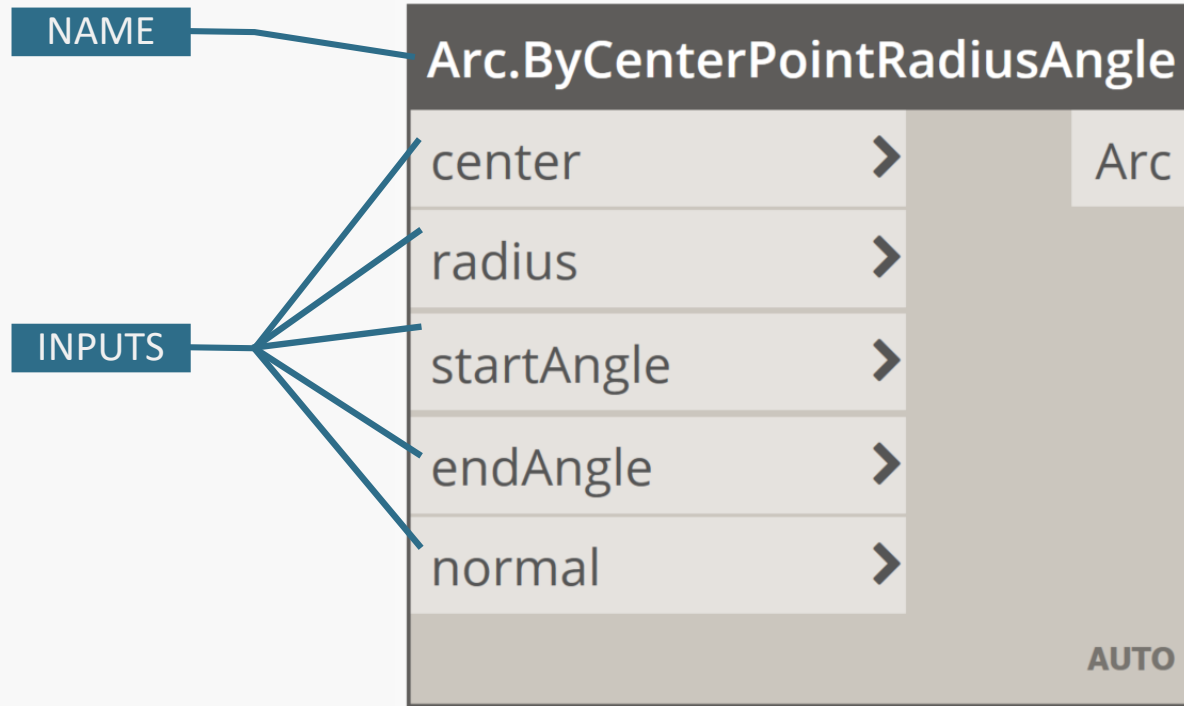


Anatomy of a node



1. Name - The Name of the Node with a Category.Name naming convention.
2. Ports (In) - The receptors for Wires that supply the input data to the Node as well as the results of the Node's action
3. Ports (Out) - The connector for Wires that supply the output data as the results of the Node's action
4. Main - The main body of the Node - Right-clicking here presents options at the level of the whole Node
5. Lacing Icon - Indicates the Lacing option specified for matching list inputs (more on that later)
6. Preview window – allows a review of the output data

Anatomy of a node



Anatomy of a node

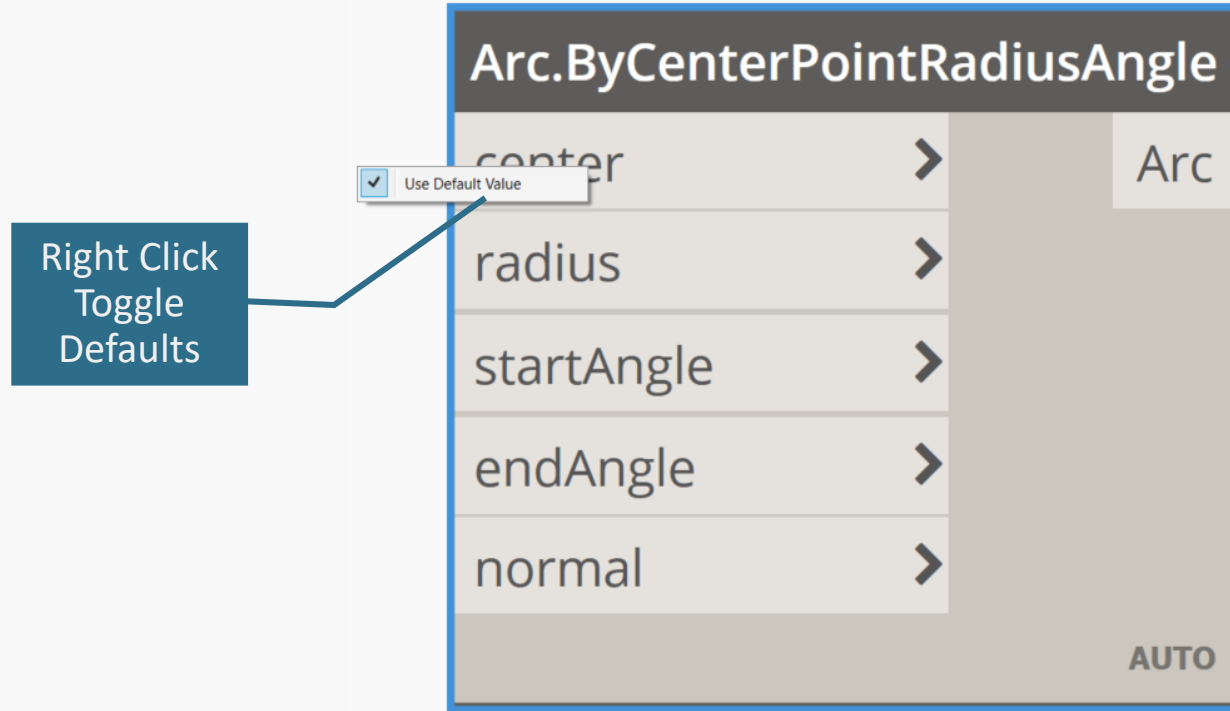
The center of the arc

Point
Default value : Autodesk.DesignScript.Geometry.Point.ByCoordinates(0, 0, 0)

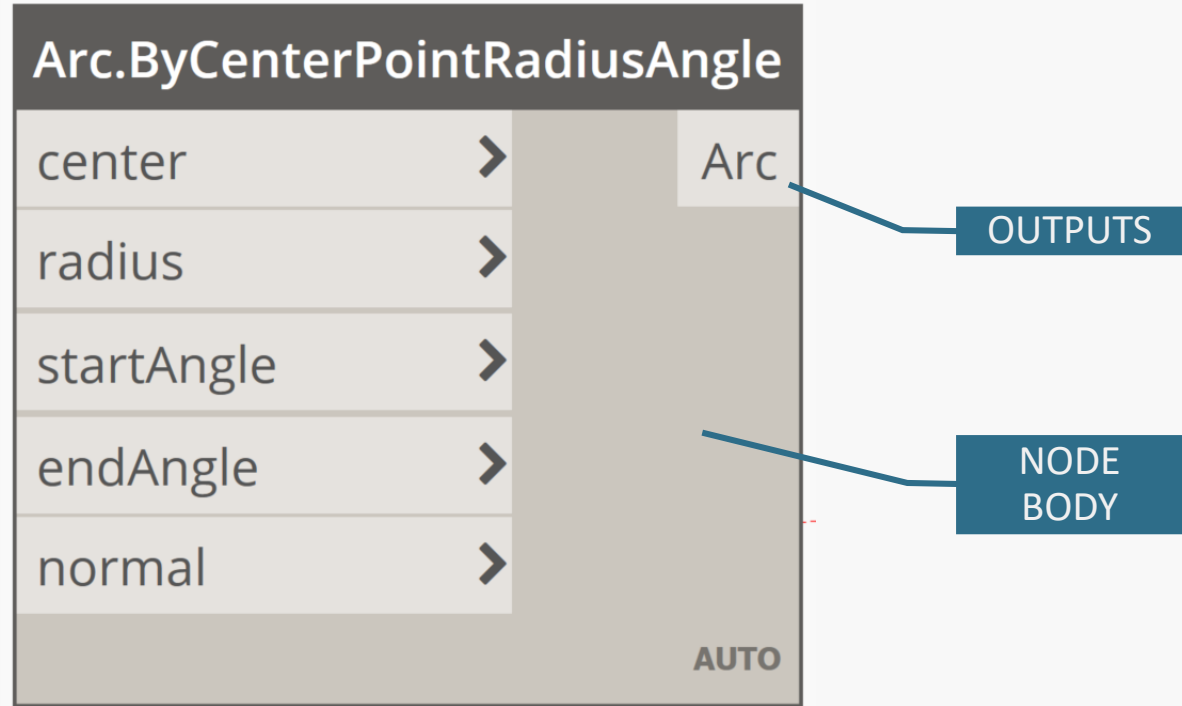
Hover
Context

Arc.ByCenterPointRadiusAngle		
center	>	Arc
radius	>	
startAngle	>	
endAngle	>	
normal	>	
		AUTO

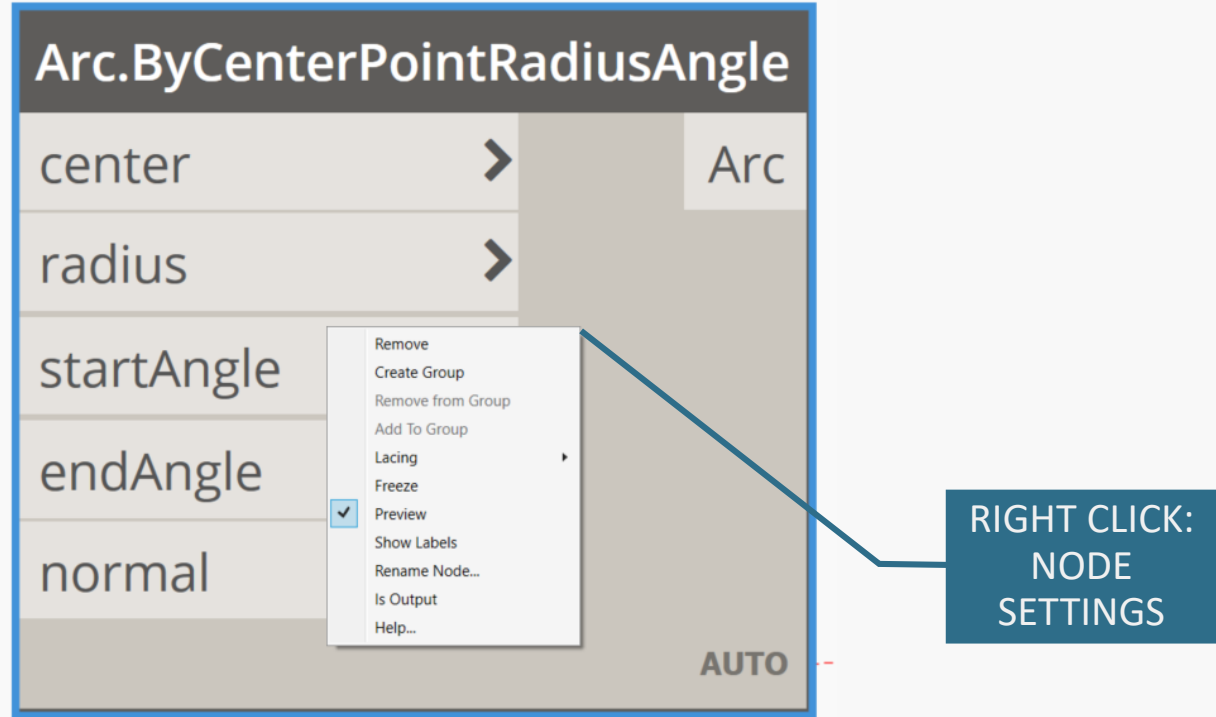
Anatomy of a node



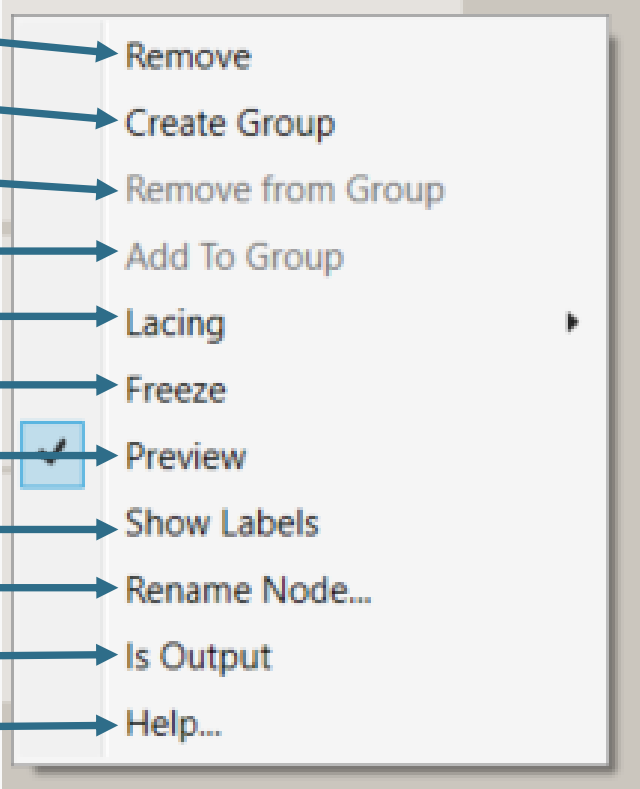
Anatomy of a node



Anatomy of a node



Anatomy of a node

- 
- 1 → Remove
- 2 → Create Group
- 3 → Remove from Group
- 4 → Add To Group
- 5 → Lacing
- 6 → Freeze
- 7 → ☒ Preview
- 8 → Show Labels
- 9 → Rename Node...
- 10 → Is Output
- 11 → Help...

- 1) Remove – deletes the node from the graph
- 2) Create group – makes a new group containing the selected node(s)
- 3) Remove from group – Removes the node from the group which contains it
- 4) Add to group – adds the node to a selected group (select the group, select the node(s) to add, right click a node and then chose this)
- 5) Lacing – allows adjustment of lacing options (Auto, Shortest, Longest, Cross Product – more later)
- 6) Freeze – deactivates the node and all nodes downstream from it so they no longer execute
- 7) Preview – enables or disables the back round preview of the output (if geometry is created)
- 8) Show labels - sets list level labels on the back round preview
- 9) Rename Node – changes the node name. AVOID THIS AS IT MAKES TROUBLESHOOTING DIFFICULT
- 10) Is Output / In Input – Sets the node to be an input or output for the desired function. A requirement for Dynamo Player usage and Refinery
- 11) Help – Gives some handy info about the node

Anatomy of a node

The diagram illustrates the anatomy of a node in a software interface. It features a main node titled "Arc.ByCenterPointRadiusAngle" with a dark header. Below the header is a list of five properties: "center", "radius", "startAngle", "endAngle", and "normal". Each property has a right-pointing chevron icon to its right. To the right of the property list is a large, light gray rectangular area. In the bottom right corner of this area, the word "AUTO" is displayed. A line points from a label "LACING ICON" to the "AUTO" text. Below the main node is a white rectangular box containing the text "Arc". A line points from a label "DATA PREVIEW" to this box.

Arc.ByCenterPointRadiusAngle		
center	>	Arc
radius	>	
startAngle	>	
endAngle	>	
normal	>	
		AUTO

Arc

LACING ICON

DATA PREVIEW

Anatomy of a node

Arc.ByCenterPointRadiusAngle

center	>	Arc
radius	>	
startAngle	>	
endAngle	>	
normal	>	

AUTO

Arc(Normal = Vector(X = 0.000, Y = 0.000, Z = 1.000))

**EXPANDED
PREVIEW
PIN**

Node States



LEARNING RESOURCES

Bookmark these in your preferred browser

Dynamo Info / News

- Main: <http://dynamobim.org/>
- Blog: <https://dynamobim.org/blog/>
- Dynamo Builds: <http://dynamobuilds.com/>
- Dynamo GitHub: <https://github.com/DynamoDS/Dynamo>

Dynamo Learning

- Dynamo Primer: <http://primer.dynamobim.org>
- Dynamo Forums: <https://forum.dynamobim.com/>
- Dynamo Dictionary: <https://dictionary.dynamobim.com>
- Dynamo Nodes: <https://dynamonodes.com/>

Design Script:

- Design Script Language Summary:
http://designscript.io/DesignScript_user_manual_0.1.pdf
- Design Script Language Guide: <https://dynamobim.org/wp-content/links/DesignScriptGuide.pdf>
- Design Script Presentation:
<https://github.com/Amoursol/dynamoDesignScript>

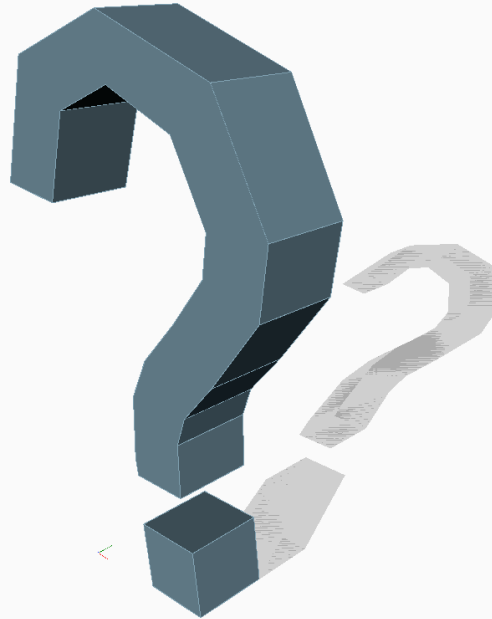
Dynamo Python:

- Python for Dynamo AU Lab Handout 1:
https://docs.google.com/document/d/1_ms_ZyyKoaWbWbcio3CN5qTl2Ywq4OJep3SIsWOXXul/edit#heading=h.76xq4kaz9plc
- Python for Dyanmo AU Lab Handout 2:
https://github.com/Amoursol/dynamoPython/blob/master/images/DivingDeeper_ABeginnersLookAtPythonInDynamo_AU_London2018.pdf
- Python for Dynamo examples:
<https://github.com/Amoursol/dynamoPython>

Generative Design:

- Info: <https://www.autodesk.com/campaigns/refinery-beta>
- Generative Design Primer: <https://www.generativedesign.org/>
- Beta Site: <https://feedback.autodesk.com/key/RefineryLanding>

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