

Innovator Data Model Graph View

V1 (April 2020)

Overview

- **Purpose:**
allows Administrators to graphically view the data model of an ItemType with all its Relationships, related Items Types and Item Property links.
- This solution is targeted for Aras Innovator Administrators only.
- 2 new Actions are introduced on Item Type „Item Type“.
- Each starts a different Graph View based on a different Query Definition
 - Graph View: „**Innovator Data Model Down**“ will resolve relationships to other Item Types recursively. And it will also resolve all item Property to their target Item Types.
 - Graph View: „**Innovator Data Model Surround**“ (360°) will resolve relationships to other Item Types one level down and one level up (where used). And it will also resolve all item Property to their target Item Types and item Properties pointing to this Item Type with their source Item Types.
- From the Graph View the displayed ItemTypes, Relationships, and Item Properties can be opened using right click action “Open Item”.
- If on an ItemType block, another right click action “Open Graph View” allows to start this GraphView again starting with the selected ItemType.

ItemTypes ▾ ☆

Search Clear Simple ▾

Name ↑	Singular Label	Plural Label	Ve
part			
Part	Part	Parts	

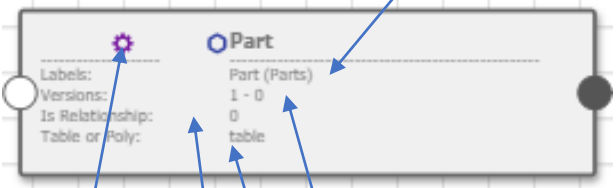
- Open
- Add to Favorites
- Claim
- Promote
- Properties
- Save As
- Delete All Versions
- Structure Browser
- Where Used
- Reset Item Access
- Reset Life Cycle State
- Set Default Life Cycle
- Add to Package Definition
- ItemType Definition Report
- ItemType Permissions Report
- ItemType History Configuration
- Show Related Item Types Data Model
- Show Surrounding Item Types Data Model

Graph View: „Innovator Data Model Down“ will resolve relationships to other Item Types recursively. And it will also resolve all item Property to their target Item Types.

Graph View: „Innovator Data Model Surround“ will resolve relationships to other Item Types 1 level down and 1 level up (where used). And it will also resolve all item Property to their target Item Types and item Properties pointing to this Item Type with their source Item Types.

Graph View Cards

Item Types



Singular and (Plural) Labels

Combination of „is_versionable“ and „manual_versioning“
0- means versions are turned off
1-0 means versions are turned on with automatic versioning
1-1 means versions are turned on with manual versioning

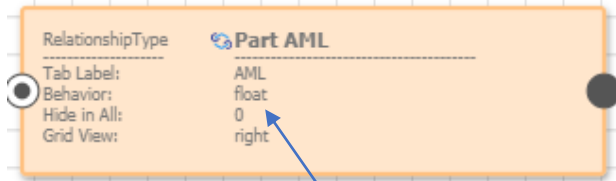
If set to „polymorphic“, it means this is a Poly Item Type

If set to „1“, it means this is the item type that belongs to a relationshiptype of the same name

Configured icon on this ItemType (open_icon)

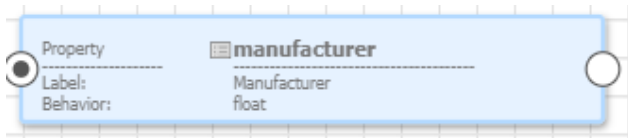
NOTE:
Each RelationshipType will always show its corresponding ItemType of the same name when expanded

Relationship Types



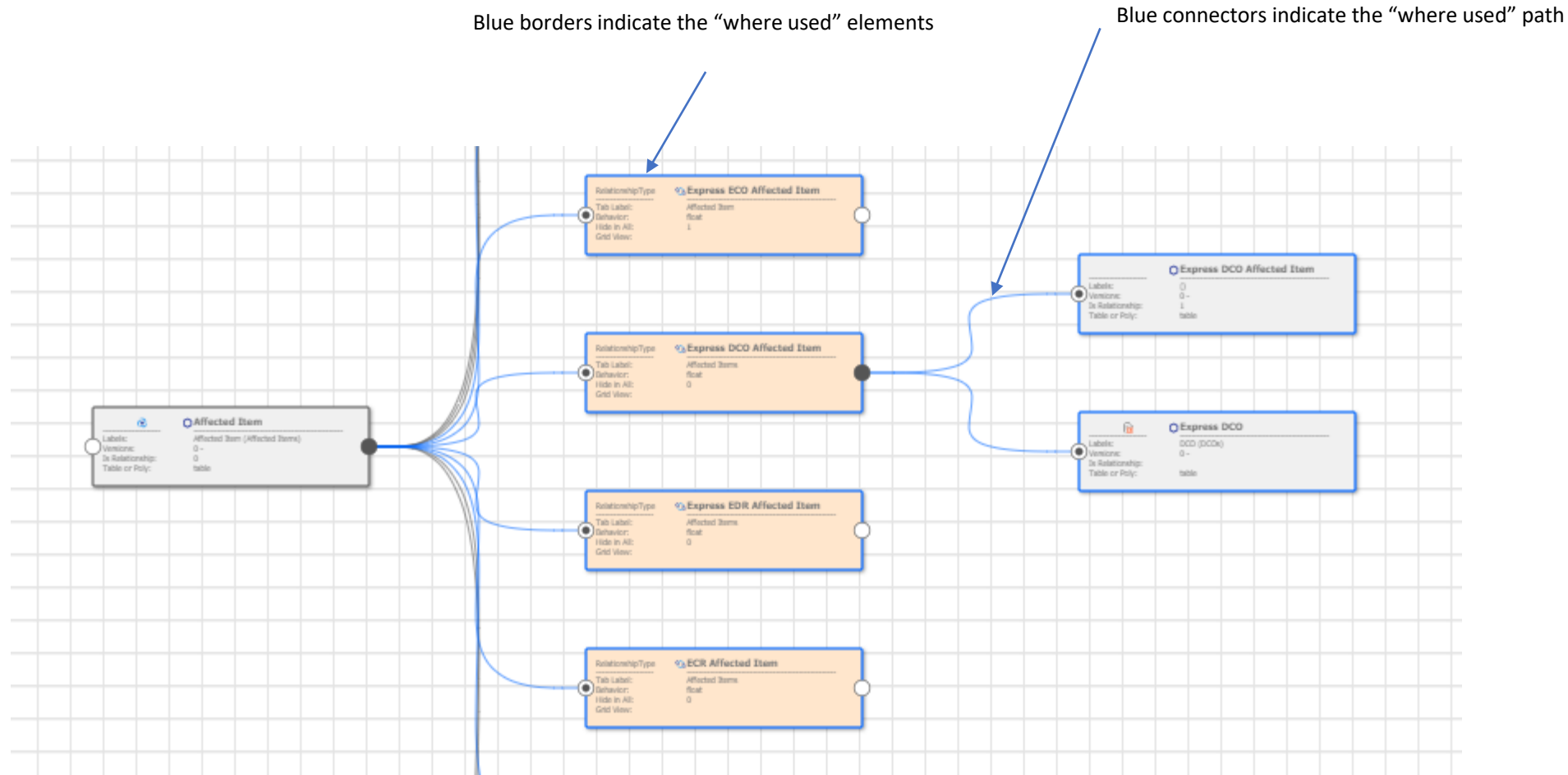
If set to „1“, it means this is a hidden Relationship

Item Properties

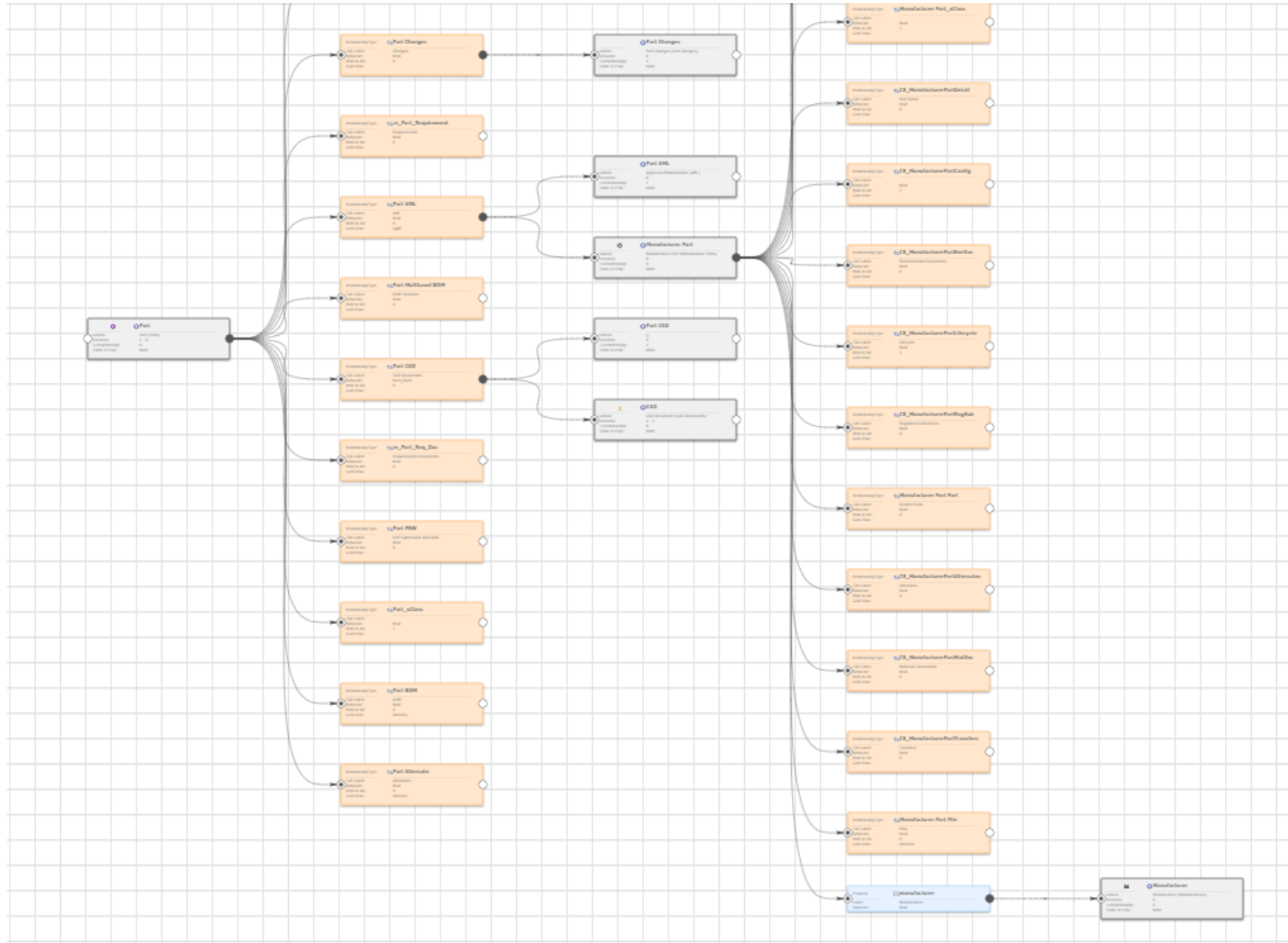


Where Used – Connectors and Colors

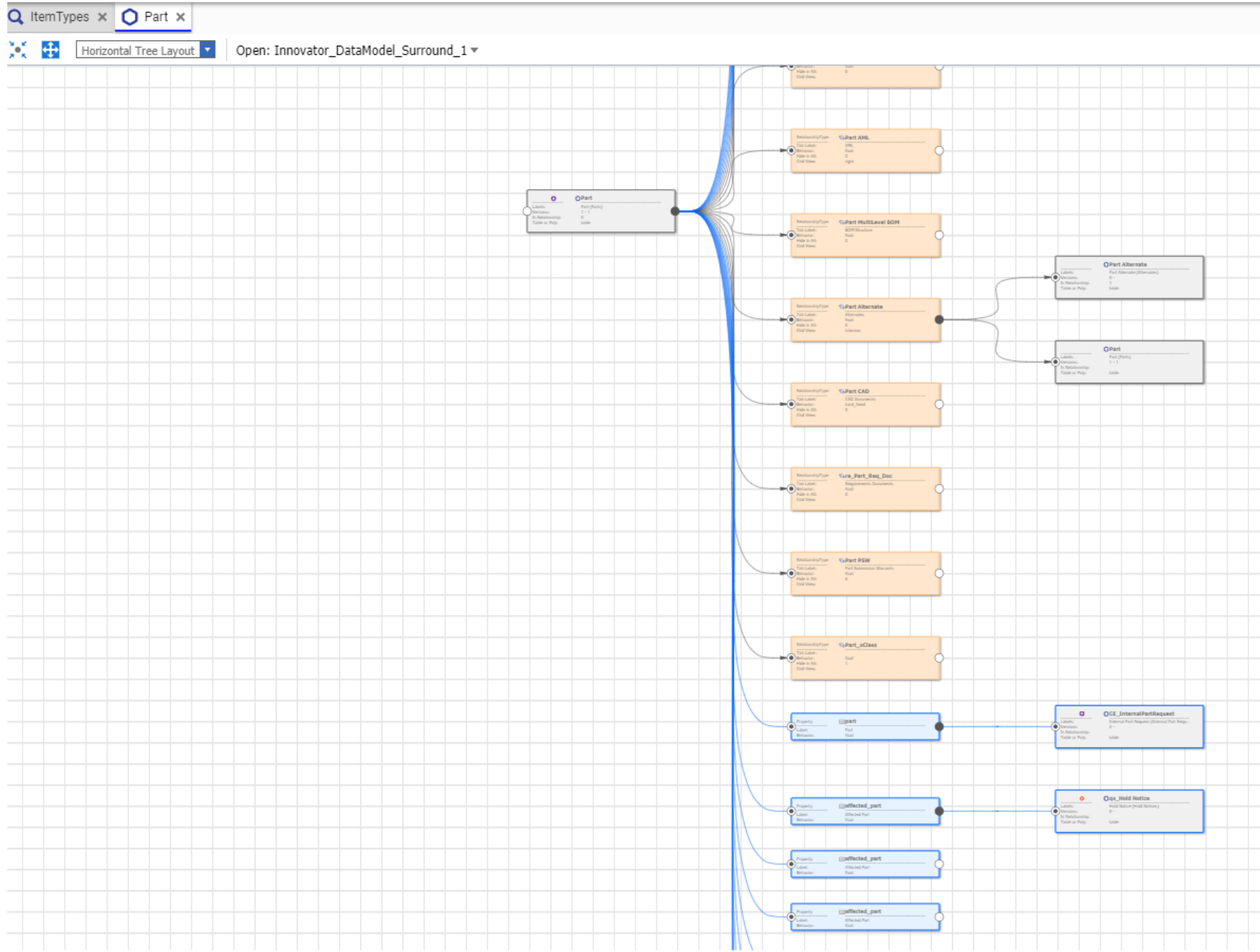
Graph View: „Innovator Data Model Surround“ applies color coding to mark the elements of “where used” (1 level up)



Sample of „Show Related Item Types Data Model”



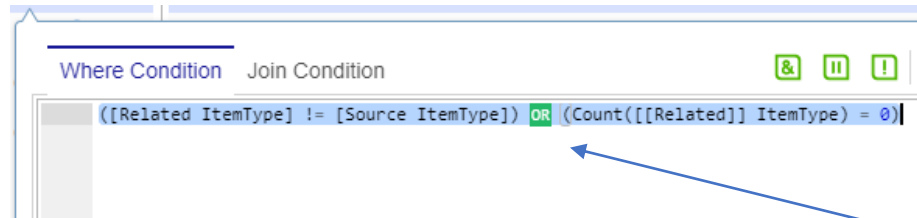
Sample of „Show Surrounding Item Types Data Model”



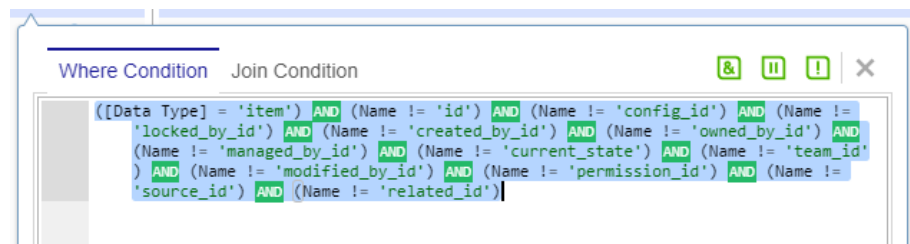
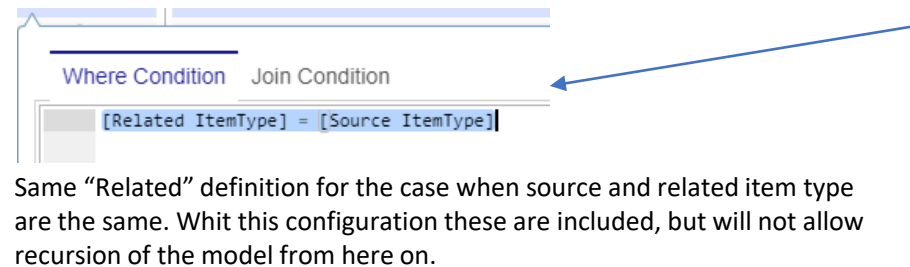
Innovator Data Model Graph View

Implementation Details

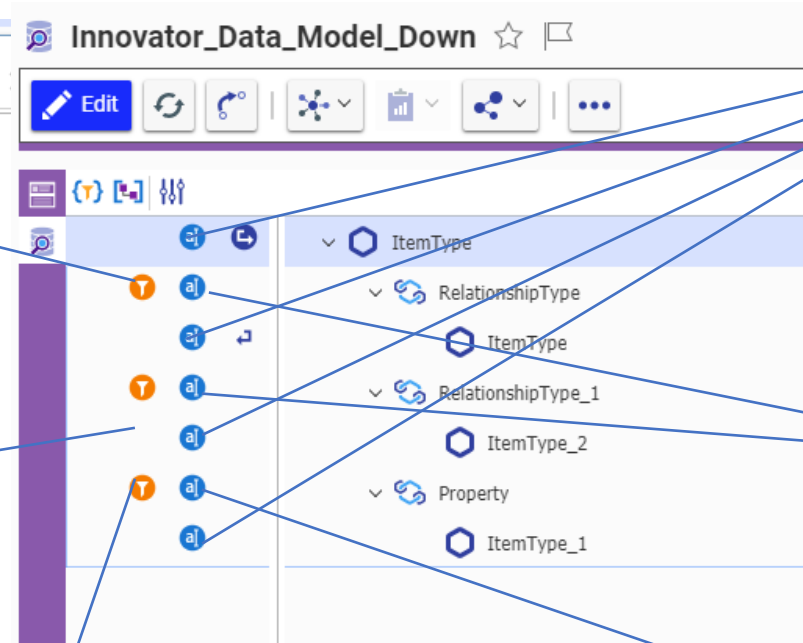
Query1 Defintion



IMPORTANT:
If source and related item type are of same type (like "Part BOM" has it)
Recursive resolution will not work !!
Prevent this case with this condition to allow recursion of the data model
Or condition to include if related count = 0 ensures NULL relationships are in.



Filter system item properties every item type has but are not relevant to show



Properties	
Name	
Plural Label	
Implementation Type	
Manual Versioning	
Dependent	
Small Icon	
Versionable	
Singular Label	

Properties	
Relationship Name	
Behavior	
Tab Label	
Hide In All	
Create Related	
Grid View	

Properties	
Name	
Label	
Behavior	

Query2 Defintion

Use the same Property Definitions as used in other Query !

```
Where Condition  Join Condition  &  II  !  X

[[Data Type] = 'item' AND (Name != 'id') AND (Name != 'config_id') AND (Name !=
'locked_by_id') AND (Name != 'created_by_id') AND (Name != 'owned_by_id') AND
(Name != 'managed_by_id') AND (Name != 'current_state') AND (Name != 'team_id'
) AND (Name != 'modified_by_id') AND (Name != 'permission_id') AND (Name !=
'source_id') AND (Name != 'related_id')]
```

Filter system item properties every item type has but are not relevant to show

The screenshot shows the 'Innovator_Data_Model_Surround' application. The main panel displays a list of item types under the 'ItemType' category. The list includes 'RelationshipType', 'Property', 'RelationshipType related_id', and 'Property data_source'. Each item type has a corresponding 'aj' icon. A blue arrow points from the 'aj' icon of 'RelationshipType' to the 'Where Condition' field in the code editor. Another blue arrow points from the 'aj' icon of 'Property' to the 'Join Condition' field in the code editor. A third blue arrow points from the 'aj' icon of 'RelationshipType related_id' to the 'aj' icon of 'Property data_source'.