

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 ▾

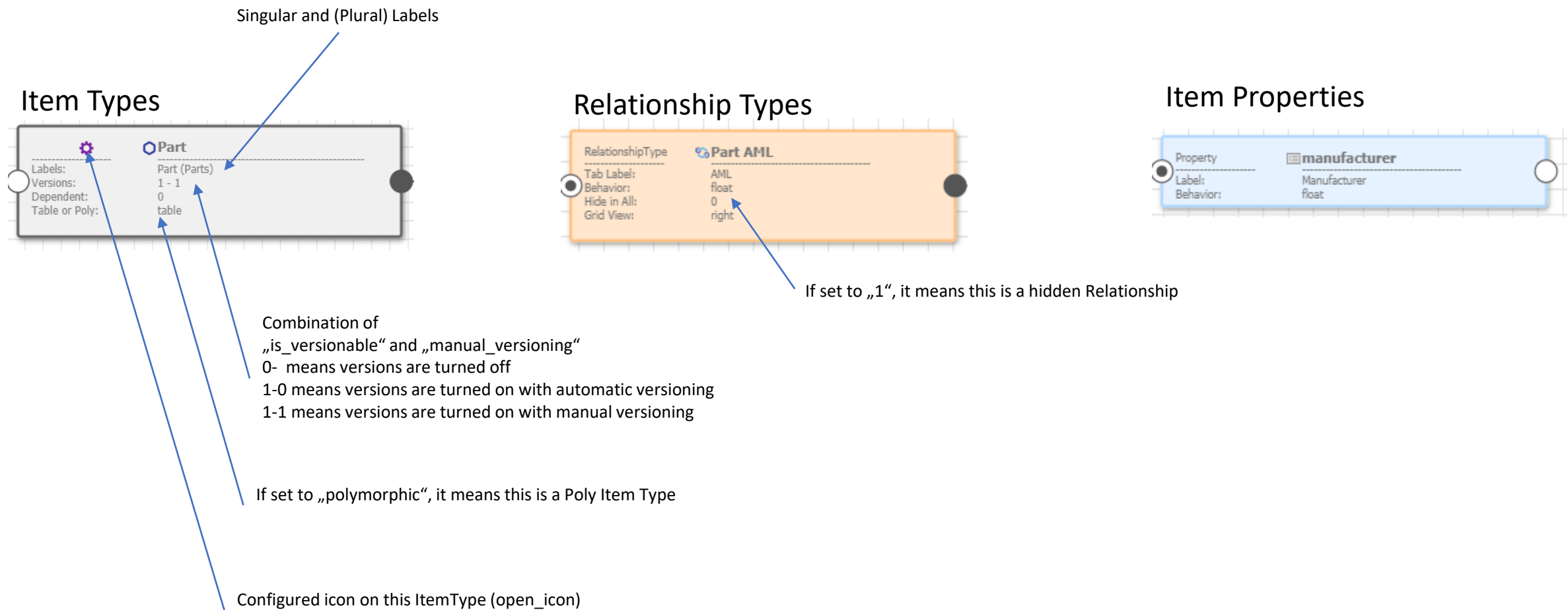
Name ↑	Singular Label	Plural Label	Ve
part			
Part	Part	Parts	

- 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.

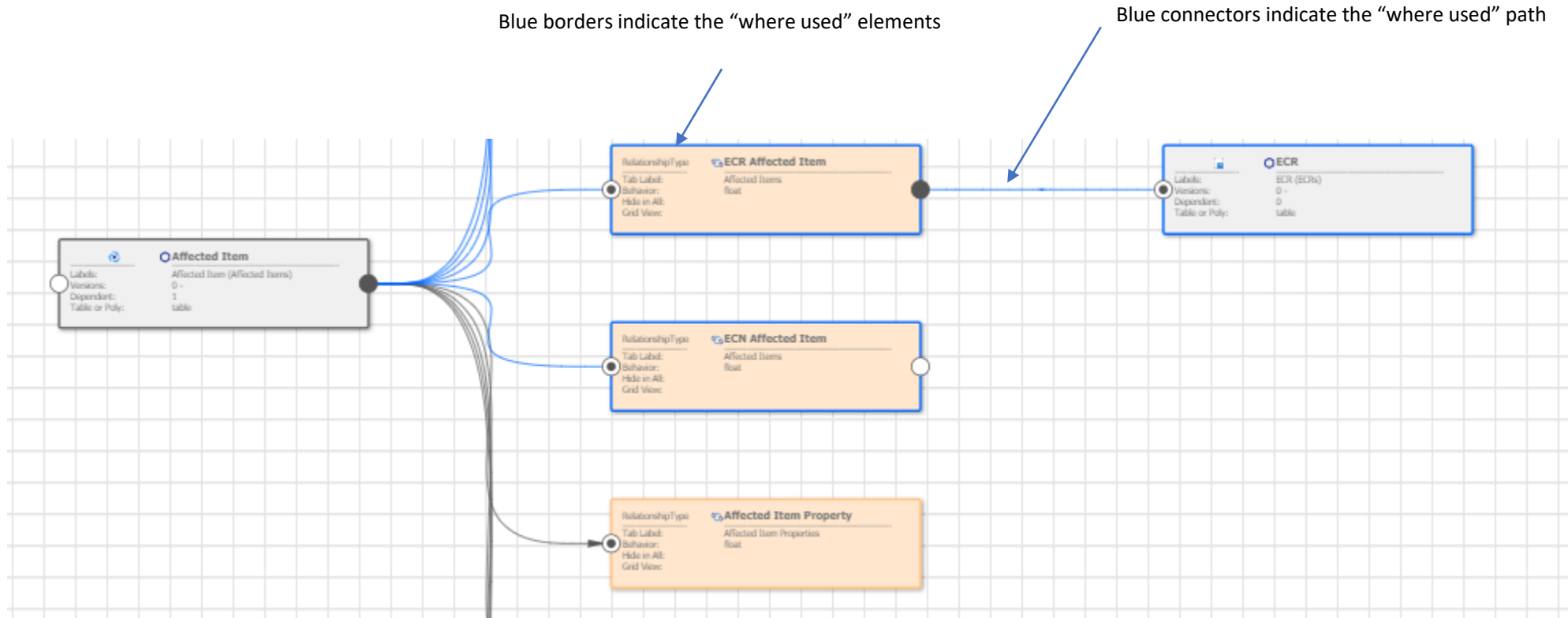
Graph View: „Innovator Data Model Surround“ will resolve relationships to other Item Types 1 level down and 1 level up (where used). And it will also resolve all item Property to their target Item Types and item Properties pointing to this Item Type with their source Item Types.

Graph View Cards

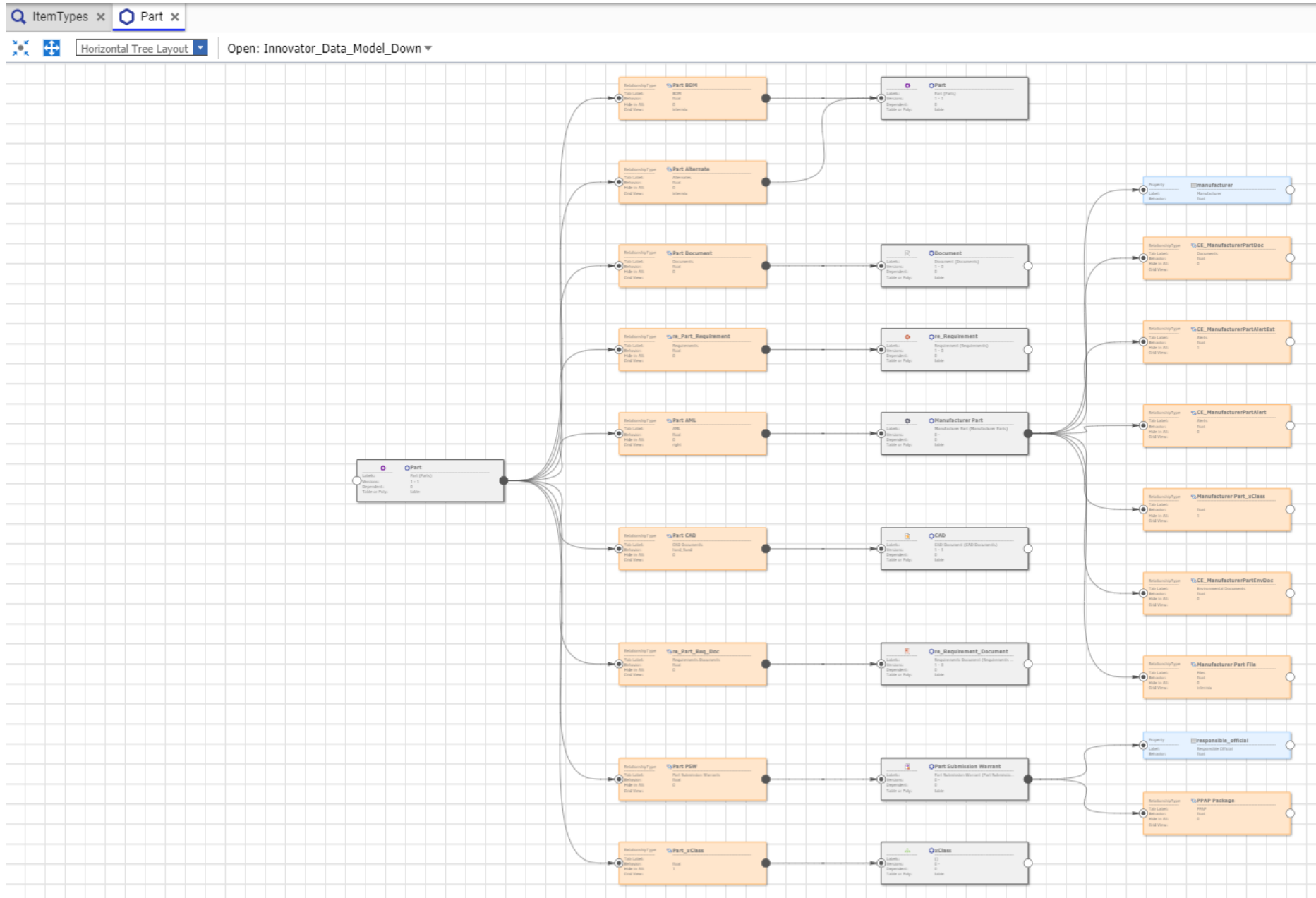


Where Used – Connectors and Colors

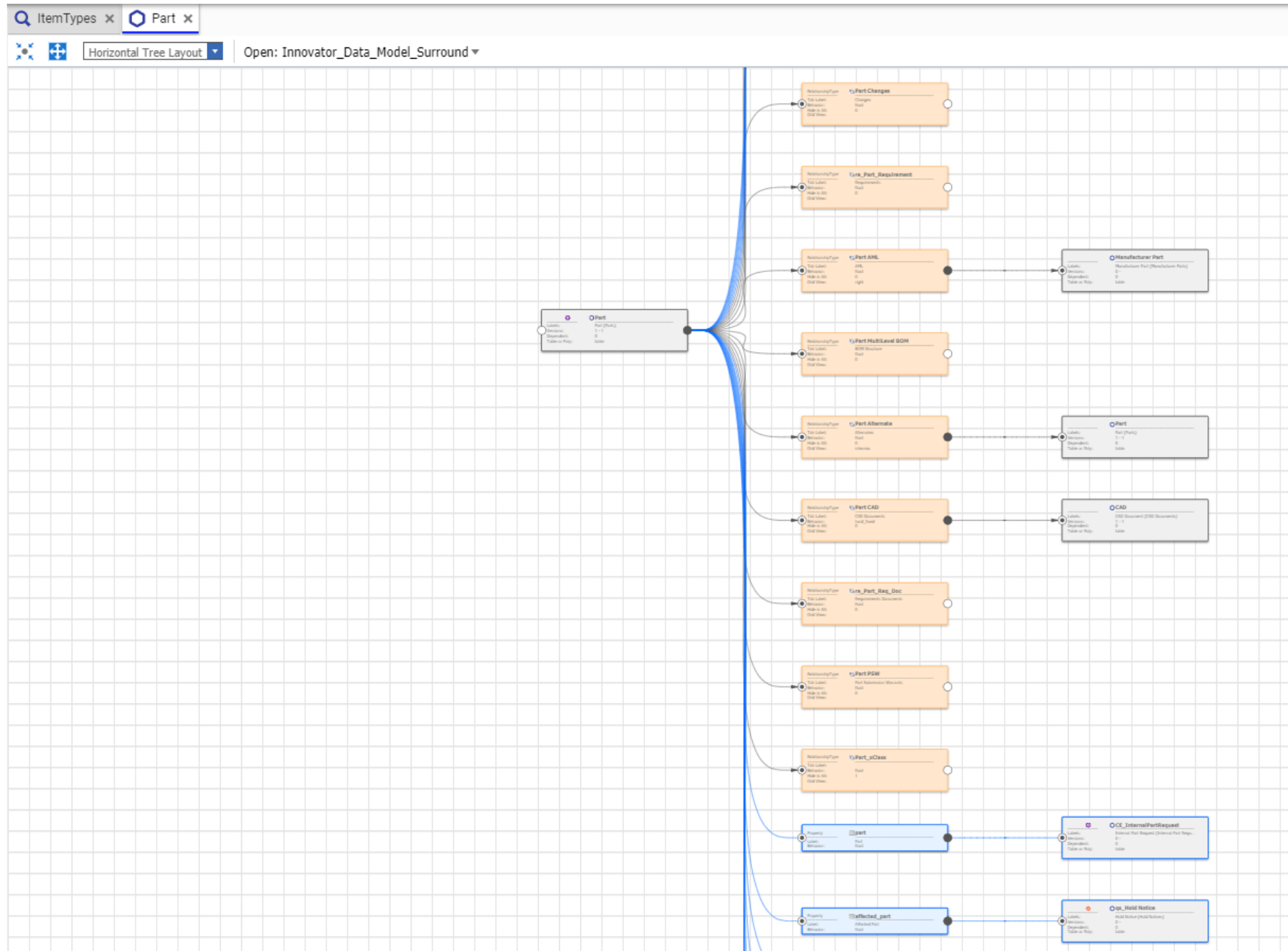
Graph View: „Innovator Data Model Surround“ applies color coding to mark the elements of “where used” (1 level up)



Sample of „Show Related Item Types Data Model”



Sample of „Show Surrounding Item Types Data Model”



Innovator Data Model Graph View

Implementation Details

Query Definition

RelationshipType

Where Condition Join Condition

[Related ItemType] != [Source ItemType]

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

Where Condition Join Condition

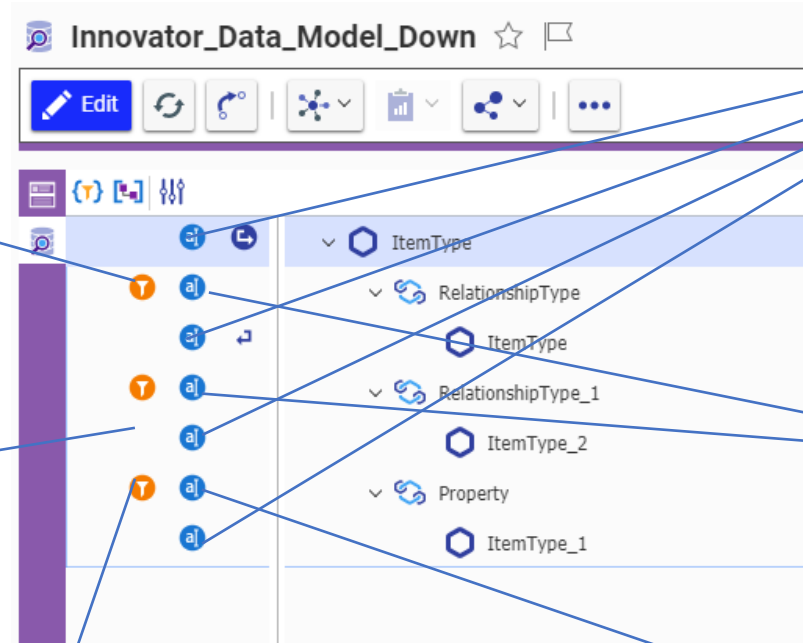
[Related ItemType] = [Source ItemType]

Same "Related" definition for the case when source and related item type are the same. With this configuration these are included, but will not allow recursion of the model from here on.

Where Condition Join Condition

[[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



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

Query Definition

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' interface. At the top, there is a title bar with a star and a flag icon. Below it is a toolbar with icons for 'Edit', 'Refresh', 'Undo', 'Redo', 'Save', 'Print', and 'Help'. The main area is divided into two panes. The left pane shows a list of item types, each with a blue circle icon containing 'aj'. The right pane shows a tree view of the 'ItemType' hierarchy, including 'RelationshipType', 'Property', 'RelationshipType related_id', and 'Property data_source'. A blue arrow points from the 'aj' icon in the left pane to the 'Where Condition' field in the code block on the left. Another blue arrow points from the 'aj' icon in the left pane to the 'aj' icon in the right pane.