

RIGHT NOW

ACE 2014

Customizing the Impact Matrix

Changing Impact Matrix for Specialized Change Processes

Introduction



- The Express ECO Impact Matrix provides powerful change impact analysis, particularly in products with high levels of reuse and common parts
- An change analyst is led through the change impact analysis process, so there is less chance to do an incomplete or inaccurate analysis
- The change analyst can see up and down the product structure in context of the items they put on the change, and indicate which related items are or are not affected by the change
- The Impact Matrix is the next generation of the old “CMII Affected Item Wizard” Community Solution

Example of Customization



- An Aras Innovator Subscriber wanted to add change impact analysis automation to their ECR/ECN process
- Desired changes included –
 - Adding the Impact Matrix to the ECR
 - Adding custom properties columns to the grid
 - Adding a custom change action
 - Adding Documents and Part to Document relationships

What is Involved

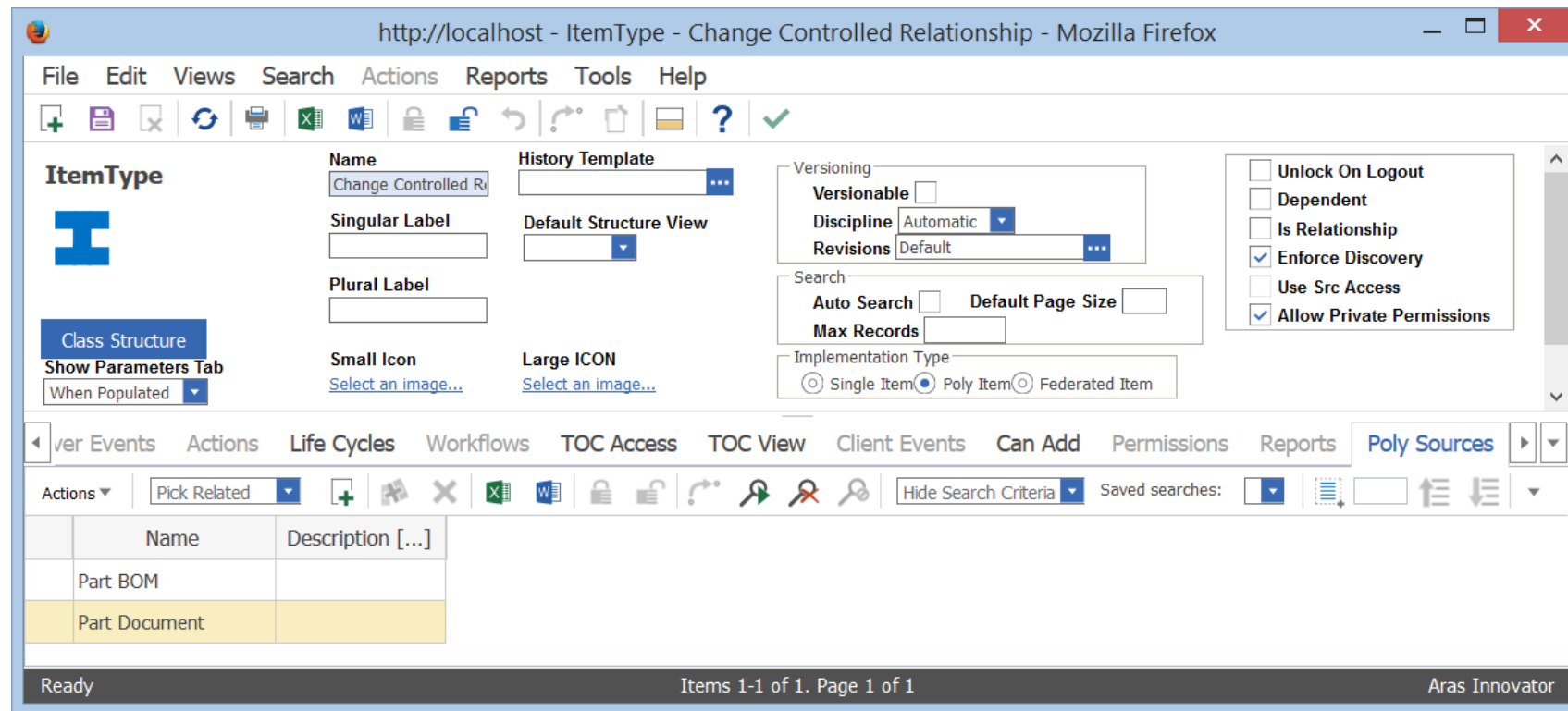


Not many things make up the Impact Matrix

- A null relationship on the change item that calls an “Impact Matrix Grid” Form
- The form calls several methods –
 - BaseTreeGrid – unchanged in this example
 - (Express ECO) GetDataSource – changed to add the additional Part property displayed, or other items (Document) or relationships (i.e. Part Document)
 - (Express ECO) ImpactMatrixGrid – biggest changes to add columns, add RMB actions, deal with differences between Express ECO and ECR/ECN (item action versus action property)
 - RefreshImpactGridForceServerCall – unchanged in this example
- Solutions\PLM\xml\uiresources.xml describes RMB actions and error messages
- Updates to Change Controlled Relationship and Change Controlled Item Itemtype
- Updates to PE_ChangeItemTransition to error for None and Review actions (not allow ECR to transition)

Adding Part Document Relationships

- Add Part Document ItemType to Change Controlled Relationship PolyItem (also need to add “quantity” property to Part Document ItemType)



The screenshot shows the 'Change Controlled Relationship' configuration page in the Aras Innovator web application. The browser title is 'http://localhost - ItemType - Change Controlled Relationship - Mozilla Firefox'. The page has a menu bar (File, Edit, Views, Search, Actions, Reports, Tools, Help) and a toolbar with various icons. The main configuration area is divided into several sections:

- Item Properties:** Name (Change Controlled Ri), Singular Label, Plural Label, Small Icon, Large ICON.
- History Template:** A dropdown menu.
- Default Structure View:** A dropdown menu.
- Versioning:** Versionable (checkbox), Discipline (Automatic), Revisions (Default).
- Search:** Auto Search (checkbox), Default Page Size, Max Records.
- Implementation Type:** Single Item, Poly Item (selected), Federated Item.
- Permissions:** Unlock On Logout, Dependent, Is Relationship, Enforce Discovery (checked), Use Src Access, Allow Private Permissions (checked).

At the bottom, there is a navigation bar with tabs for 'ver Events', 'Actions', 'Life Cycles', 'Workflows', 'TOC Access', 'TOC View', 'Client Events', 'Can Add', 'Permissions', 'Reports', and 'Poly Sources'. Below this is a table with columns 'Name' and 'Description [...]':

Name	Description [...]
Part BOM	
Part Document	

The status bar at the bottom indicates 'Ready', 'Items 1-1 of 1. Page 1 of 1', and 'Aras Innovator'.

Impact Matrix Customization



Express ECO Item Actions versus ECR/ECN Actions

Express ECO Item Action	ECR/ECN Action
None	(None)
Review	(Review)
Release	Add
Revise	Change (Interchangeable)
Supersede	Change (Non-Interchangeable) *
Obsolete	Delete
Renumber	
Custom based on Revise	NoRevChange (new custom action)

* Supersede is closest match, but need to be able to pick the new part instead of auto-generate it

PE_ChangeltemTransition structure



- Sections for each Change Type (ECR, ECN, Express ECO, etc.)
 - Sections for State and Transition
 - Sections for ValidateState, ValidateTransition and ProcessTransition
- Functions for validation tests and processing

To handle non-revision change, add method code to the ECN “In Planning->In Work” transition handler to set the new item revision to the affected item revision

Impact Matrix Customization

Review of changes



- Compare packages using Beyond Compare

Impact Matrix Customization



Comments and Guidelines

- Reference the “Aras Innovator 9.4 – Impact Matrix Technical Document”
- If you have access to an example of a custom impact matrix, use a tool like Beyond Compare, DiffDog, etc. to find differences between the standard “Express ECO Impact Matrix Grid” method and a customized method to highlight what you might need to change
- It was actually pretty easy to make all of these changes and test them in just a few days

- Get the Impact Matrix Customization Demo package from Community Solutions
- Attend the Aras PE Essentials training or download it and other training resources like video demos through the Subscriber Portal to learn more about how the Impact Matrix is used
- Get the “Aras Innovator 9.4 – Impact Matrix Technical Document” from Support
- Contact Aras Consulting and Partners to work with you to customize the Impact Matrix
- Customize the Impact Matrix for your organization and use it

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