

Best Practices for Tailoring IBM® Rational Team Concert Work Items and Process for Your Environment

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Agenda

- Why Customization?
- Example: Scrum Process Template
- Customization: Best Practices
- New and Noteworthy in RTC 3.0 & 3.0.1

Why Customization?

- RTC provides a good Out-of-the-Box experience:
 - ▶ Minimal setup for most cases
 - ▶ No customization required

- However: RTC is highly customizable – Why?
 - ▶ Different organizations have varying requirements for project governance
 - ▶ Different teams want to adapt the tool to the process that works best for them
 - Important for agile teams: continuously adapt and improve

- What is the Goal of this Talk?
 - ▶ Learn what's in a process template
 - ▶ Get started with tweaking the process to the way your team needs it

Customizations: Scope

- RTC supports customizations for these capabilities:
 - ▶ Process (Jazz Foundation)
 - ▶ Work Items
 - ▶ Planning
 - ▶ Dashboards
 - ▶ SCM
 - ▶ Build

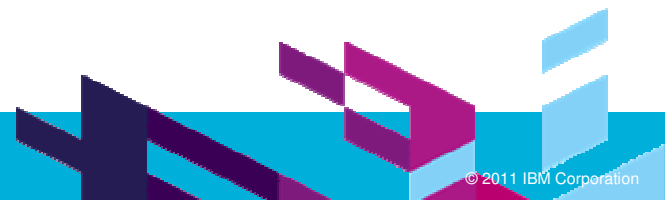
- Focus of this talk:
 - ▶ Only common customizations
 - ▶ Components:
 - Process
 - Work Items

Demo Example

- Scrum Process Template
 - ▶ *Scrum* is a popular approach to manage projects in an agile way
 - ▶ Most fleshed out process template
 - showcase for many interesting RTC features
 - ▶ more info about Scrum:
 - http://www.ibm.com/developerworks/rational/library/08/0701_ellingsworth/



www.ibm.com/software/rational



What was done? – Summary

- New Work Item types:
 - ▶ some with additional **custom attributes**
 - ▶ some with **custom workflows**
 - ▶ new **layouts** for work item types
 - ▶ new **shared queries**

- Tighter Permissions
 - ▶ based on Scrum specific roles

- Required attributes
 - ▶ state specific: Work Item can only be closed if it has Owner

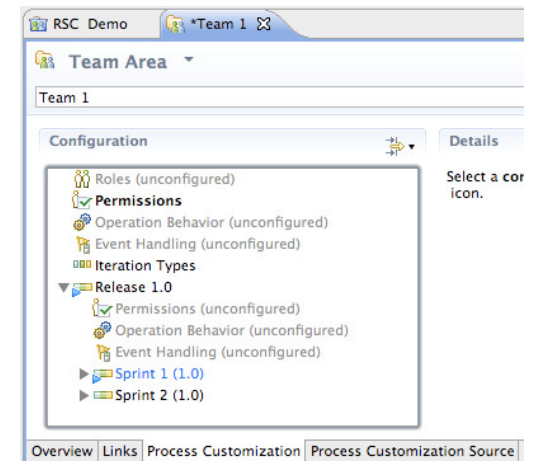
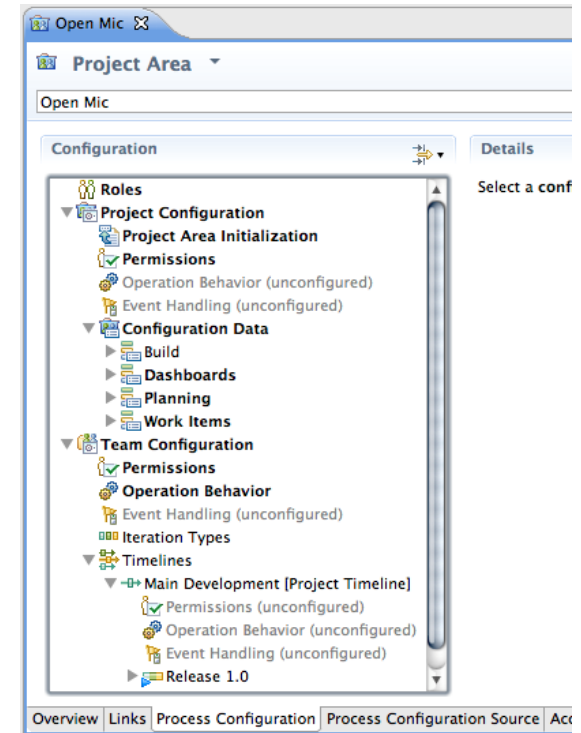
- Scrum specific plan types, e.g. a Sprint Backlog

- Role based Dashboards

How was it done?

- Project Area:
 - ▶ Roles
 - ▶ Project configurations
 - Initialization
 - Role based Operations
 - Configurations
 - ▶ Team configurations
 - Role based Operations
 - Timeline/Role based Operations

- Team Area (optional):
 - ▶ Roles
 - ▶ Role based Operations
 - ▶ Timeline/Role based Operations



Process Customization: Operations

- **Examples:**

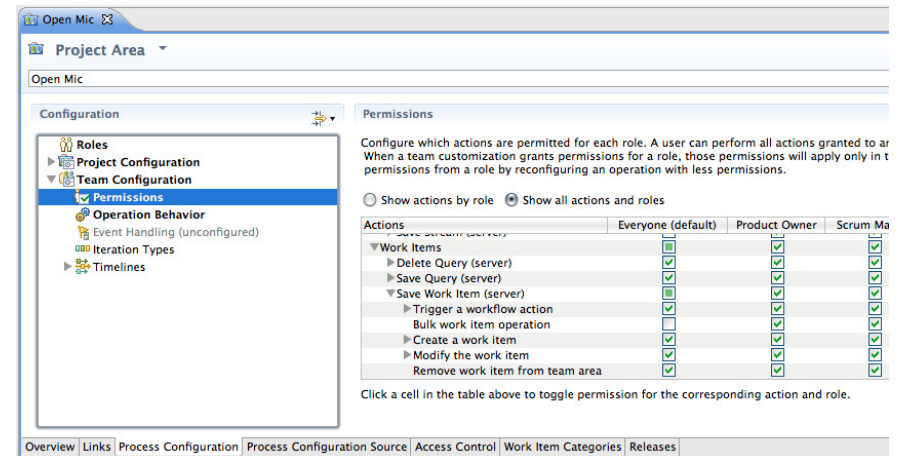
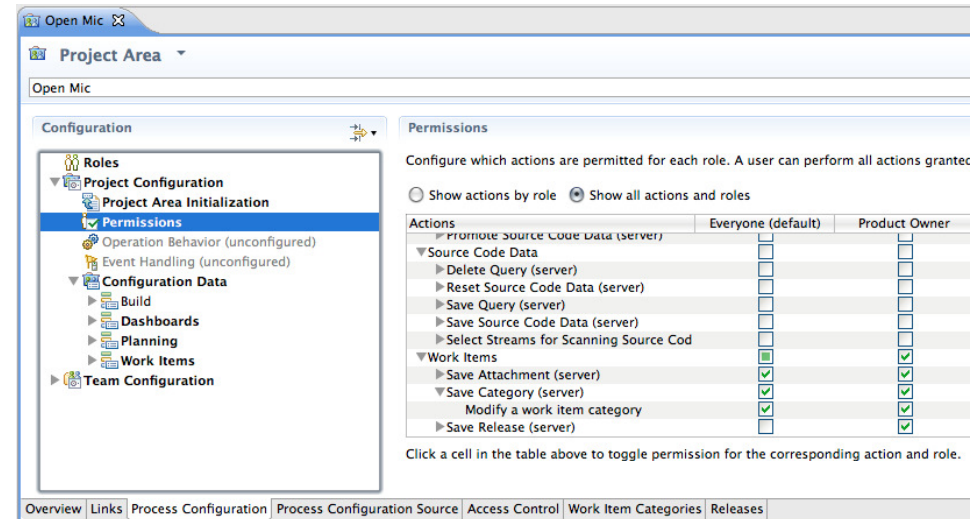
- ▶ “Save Category”: project level
- ▶ “Save Work Item”: team level

- **Operation Permissions:**

- ▶ Based on finer grained “actions”:
 - **Create** Work Item
 - **Modify** Work Item
 - **Modify Attribute “Priority”** of Work Item

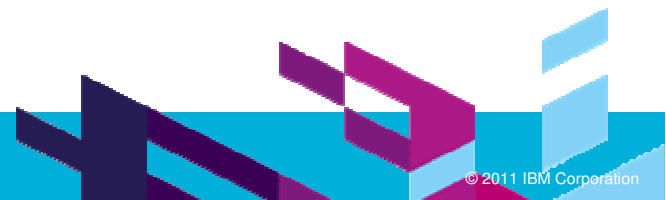
- **Operation Behavior:**

- ▶ Preconditions, e.g. “Required Properties”
- ▶ Follow-up actions, e.g. “Create Initial Work Items”





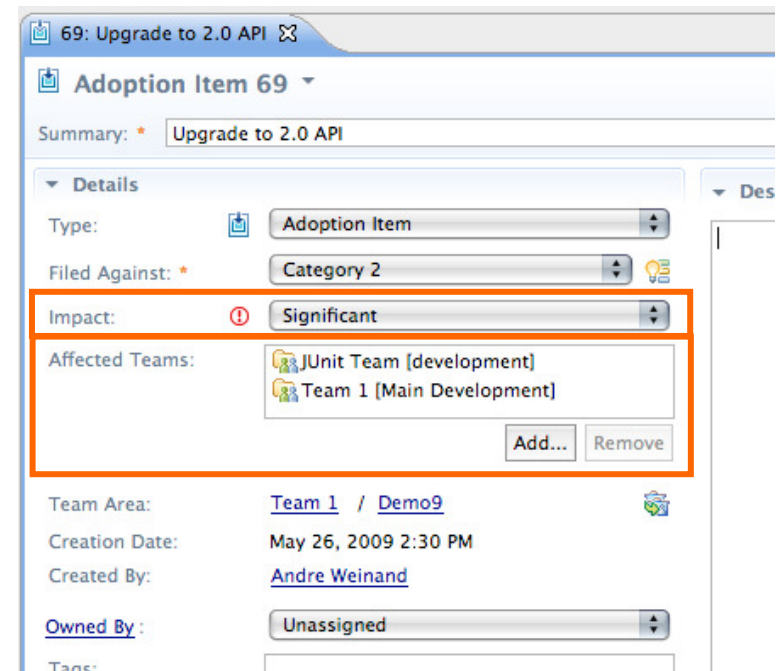
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Work Item Types & Custom Attributes

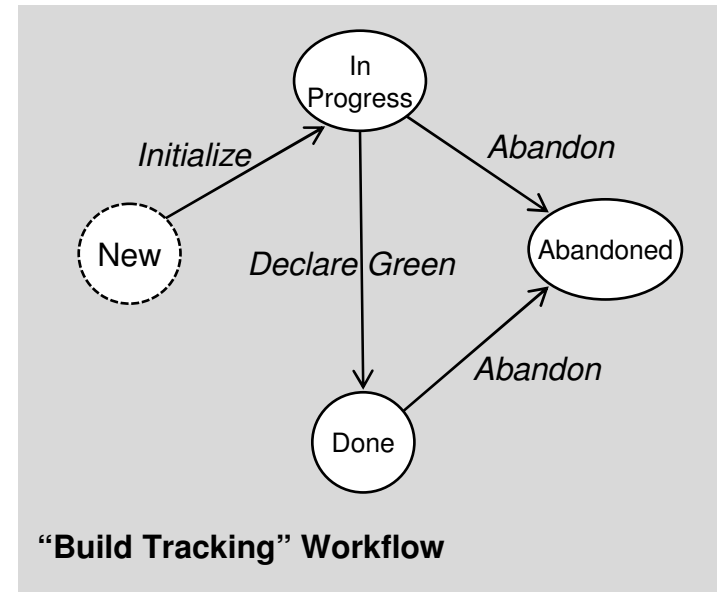
- **Work Item Type** defines:
 - ▶ Display name, Icon
 - ▶ Built-in attributes: e.g. Summary, Description, Owner, Creator, ...
 - ▶ Optional custom attributes
 - ▶ A state transition matrix (aka workflow)

- **Scrum Examples:**
 - ▶ Build Tracking Item
 - ▶ Story
 - Criteria of Acceptance: Large HTML
 - ▶ **Adoption Item**
 - Impact: Custom enumeration
 - Affected Teams: Team Area list



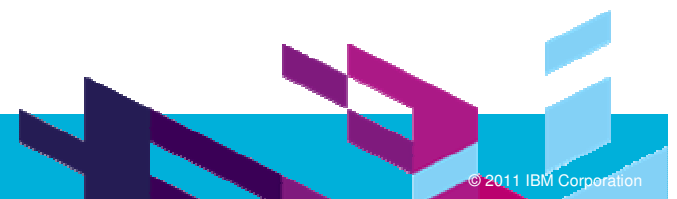
Work Item Workflows

- A **Workflow** consist of:
 - ▶ States
 - ▶ Actions
 - ▶ Resolutions (optional)
 - ▶ State Groups
- Scrum Examples:
 - ▶ User Story Workflow
 - ▶ **Build Tracking Workflow**





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Customizing the UI – Editor & Attribute Presentations

▪ Editor Presentations

- ▶ Define how a work item is presented based on:
 - Tabs, Sections, Attribute presentations
 - Small number of predefined layouts (no free-form layout yet)
- ▶ Can be used in various *contexts*:
 - Editor, Inline Editors, Dialogs, Hovers, ...

Types and Attributes
Define work item types, their attributes, and associate workflows and editor presentations.

Final (ignore customization of this data in child project areas)

Work Item Types

- Defect
- Task
- Story
- Epic
- Track Build Item
- Impediment
- Adoption Item
- Retrospective

Name: Defect
ID: defect
Category: com.ibm.team.workitem.workitemType
Icon: [Icon]
Aliases: bug

Work Item Editor: com.ibm.team.workitem.editor.default

Inline Work Item Editor: com.ibm.team.workitem.web.inline.default

Lightweight Work Item Creation Dialog: com.ibm.team.workitem.lightweight.editor.section

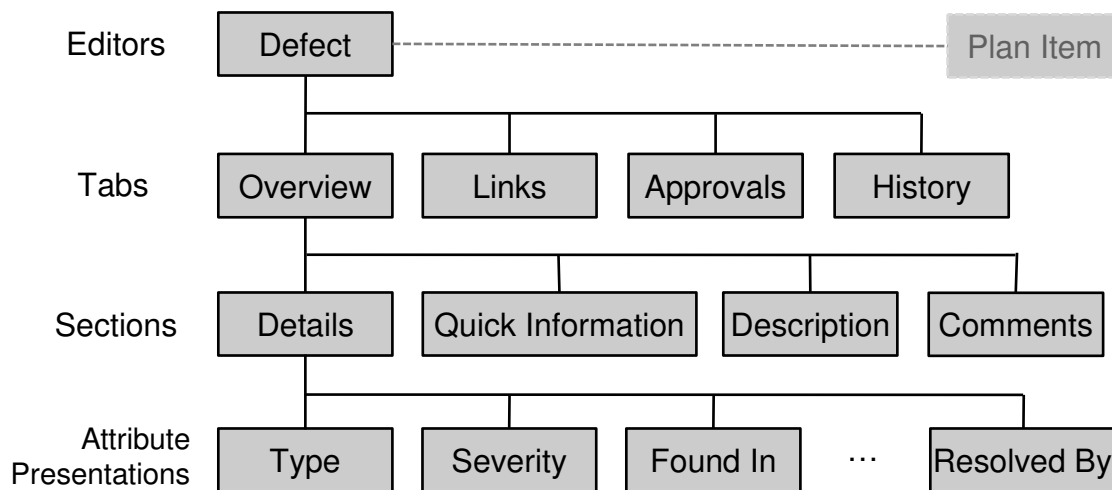
Plan Editor Preview: com.ibm.team.apr.planPreview.default

Add... Remove

Contexts (indicated by orange arrows pointing to the editor presentation dropdowns)

Editor Presentation

- Editor's UI element hierarchy:



- RTC 3.0.1 supports WYSIWYG editing
 - only in Web UI

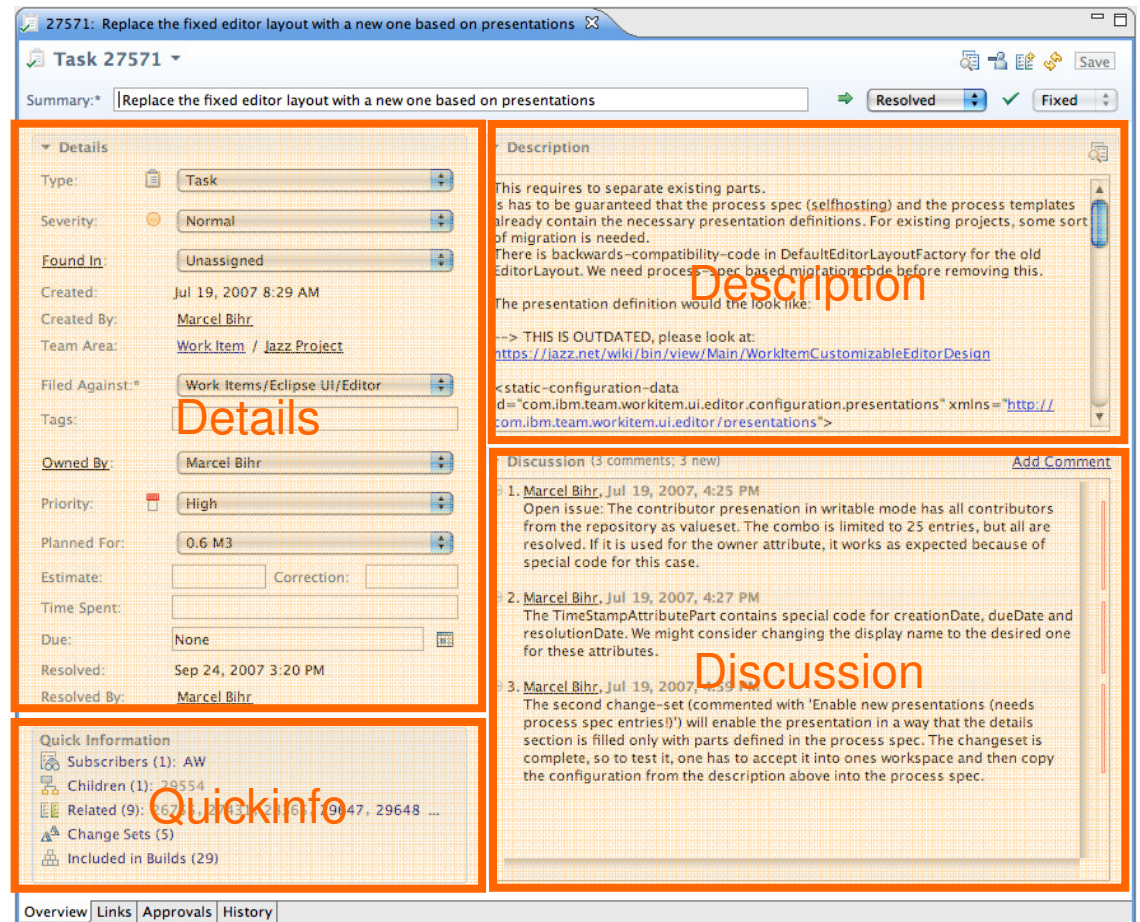


Editor Presentation Layout

- Layout limitations:
 - ▶ Tabs have predefined 'section slots'
 - ▶ Sections can be added to slot but not arbitrarily positioned

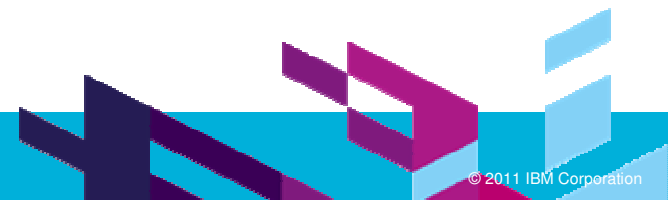
- Web UI uses same slots
 - ▶ but different layout

- Similar limitation for Sections
 - ▶ Attributes can be added but not arbitrarily positioned





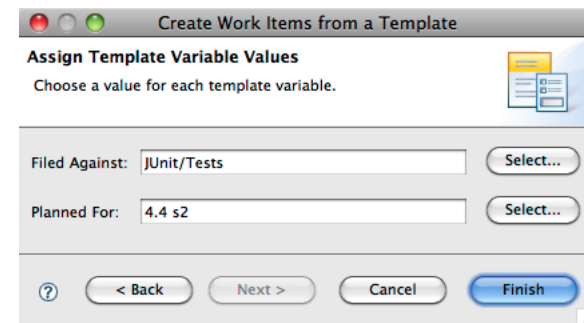
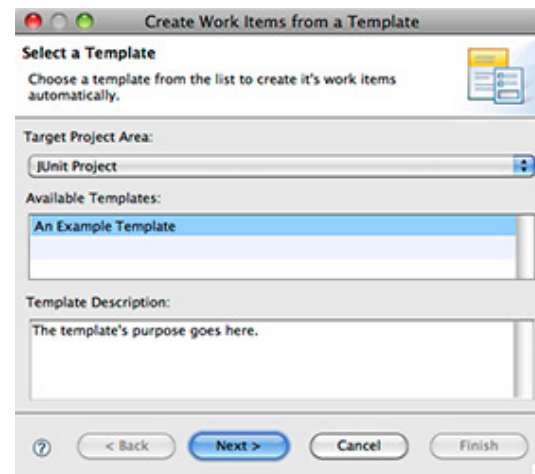
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More Customization Features

■ Work Item Templates

- ▶ Create a set of work items in an automated fashion and populate them with preset attributes and links
 - Work Items Templates support variables
- ▶ RTC supports predefined Work Item Templates as part of the Process Specification or Process Template (like predefined queries)
- ▶ Example: Simplify creation of Work Breakdown Structures



More Customization Features

- **Preconditions** for Work Item Save Operation:
 - ▶ “Require Approvals”
 - Require an approval for all transitions into a specific state
 - ▶ “Strict Group Resolution” (generalization of “All Children Resolved” precondition)
 - Requires all children to be resolved before the parent can be resolved, and requires the parent to be open before a child can be added or re-opened.
 - ▶ “Attribute Validation”
 - Verifies that a work item can only be saved if all attribute values are valid
 - ▶ “Implied Attributes”
 - Specific attribute changes can trigger sets and clears of dependent attributes
 - ▶ “Prevent Editing”
 - Prevents a Work Item from being edited in certain states
 - ▶ “Dynamic Required Attributes”
 - Verifies that a work item can only be saved if all required attributes are given.

More Customization Features

- **Default Values**

- ▶ Freely configurable default value for attributes
 - Supported Types: Text, Wiki text, Users, User Lists, Iterations, Categories, Numbers

Details

Name:

Category:

Configuration

Text:

Please see the defect filing guidelines at:
<http://jazz.net/guidelines/bugs.html>

- **Attribute Validation**

- ▶ Two out-of-the-box configurable validators:
 - Number Ranges: Restrict numeric fields to a specific range, e.g. only positive numbers
 - Regular Expressions: Enter a regular expression that validates your string attribute
 - Example: U.S. Zip codes:

Configuration

Severity:

Message:

Regular Expression:

Case sensitive

Match line breaks (for ^ and \$)

The expression matches the text

More Customization Features

▪ Dependent Enumerations

- ▶ Value set of one enumeration depends on the value of another enumeration
- ▶ Example:
 - "Browser" value set depends on a "Platform" attribute:

Configuration

Source Enumeration: Platform

Dependent Enumeration: Browser

OS X
Windows
Linux

Firefox
 Safari
 Internet Explorer
 Chrome

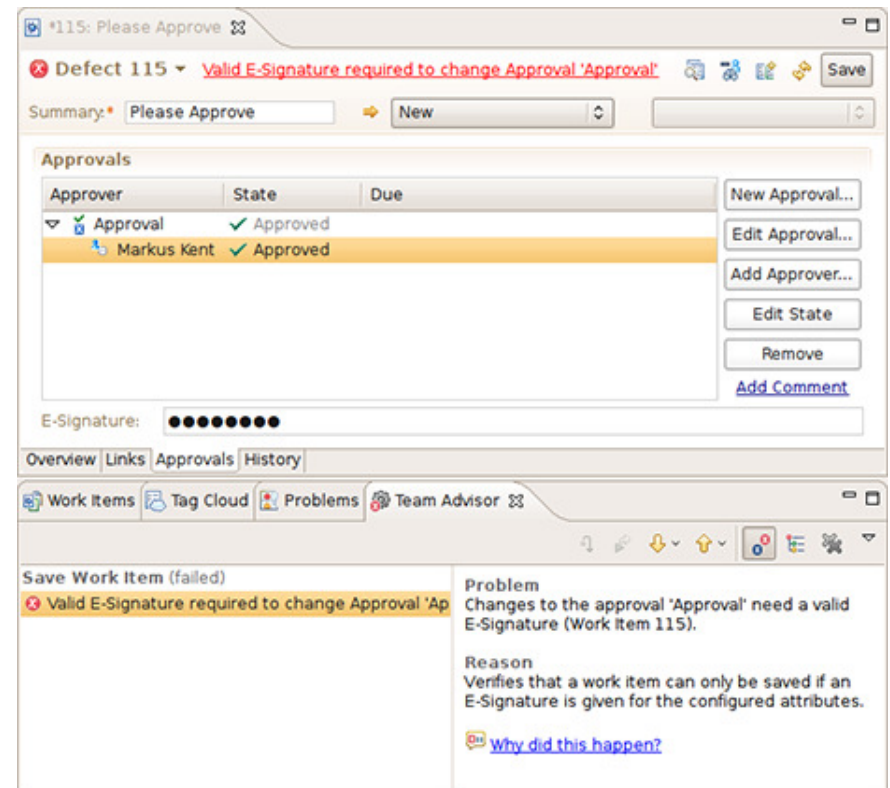
More Customization Features

- **Digital Signatures**

- ▶ Solicit a reconfirmation when accepting or rejecting an approval or changing the state
- ▶ Examples: In projects which must meet American FDA 21 CFR Part 11 requirements, certain changes require a reconfirmation of the user doing the change

- **How to configure:**

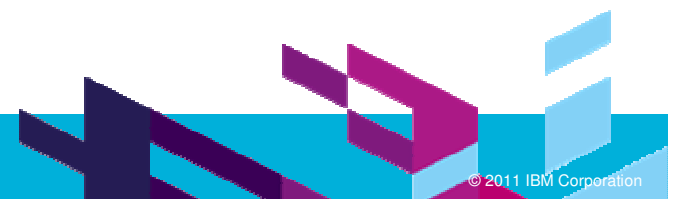
- ▶ Add an attribute of type 'E-Signature' to the desired Work Item type
- ▶ Configure the editor presentation to show the E-Signature attribute in the Approvals section
- ▶ Enable the 'E-Signature' precondition for the 'Save Work Item' operation



QUESTIONS



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