TEAMCENTER

Issue Management

Teamcenter 2412

SIEMENS

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Contents

Working with Teamcenter visual issues

Reviewing and implementing issues and penetration requests

Managing the issue process

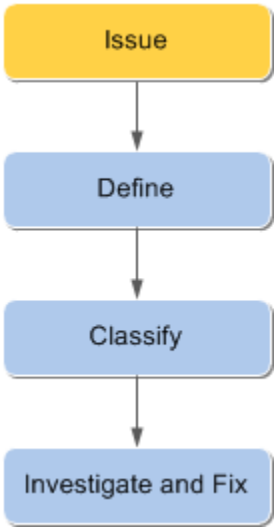
Administering the issue management process

1. Getting started with Issue Manager

What is Issue Manager?

Issue Manager tracks problems, or issues, with a product by letting you manage the review, approval, and implementation of the issue. Using Issue Manager, you:

- **Define** – Gather information about a problem, including relevant parts, snapshots of the issue from NX or Lifecycle Visualization, and reference data.
- **Classify** – Determine its risk level and priority.
- **Investigate and fix** – Perform root cause analysis and develop a resolution for the issue.



You start a workflow to analyze the problem and send it to the **assigned participants**.

You can also use Issue Manager to **manage penetration requests** that were created in NX or Teamcenter visual issues.

When should you use Issue Manager?

Use Issue Manager to manage issues that:

- Have highly visual information. Issue Manager automatically provides access to Siemens Digital Industries Software design review and issue resolution tools, including NX, Lifecycle Visualization, and the Lifecycle Viewer.
- Do not need to be addressed through an extensive, standardized change management process, such as the one that Change Manager supports.

For example, use Issue Manager if the issue's fix does not require a product structure change because Issue Manager does not provide features to manage product structure changes, such as removing, adding, or replacing product nodes.

If you determine that an issue should be managed by Change Manager, you can **change an issue into a change report**.

Types of issues you can create in Issue Manager

Using Issue Manager, you can manage many types of objects, In addition to creating a basic issue report, you can:

- Use an issue report to track and fix issues with a product.
- **Create Teamcenter visual issues** to capture and track design problems with 2D images and 3D models. You create the visual issue in Lifecycle Viewer or the Lifecycle Visualization stand-alone viewer and manage them in Issue Manager.
- **Create penetration requests** to request a hole cut in a structure. You create penetration requests in NX and you can manage them in either NX or Issue Manager.

  For more information, see the NX documentation.

Understanding the issue management process

Ways to manage an issue

There are two ways to manage an issue report:

- The change specialist sets up Teamcenter workflow process for all participants.

  Workflow tasks, such as issue review, issue fix, or final approval review are dispatched to assignees automatically when the tasks become current. All team members are guided by the workflow process. Issue status is tracked and updated automatically.

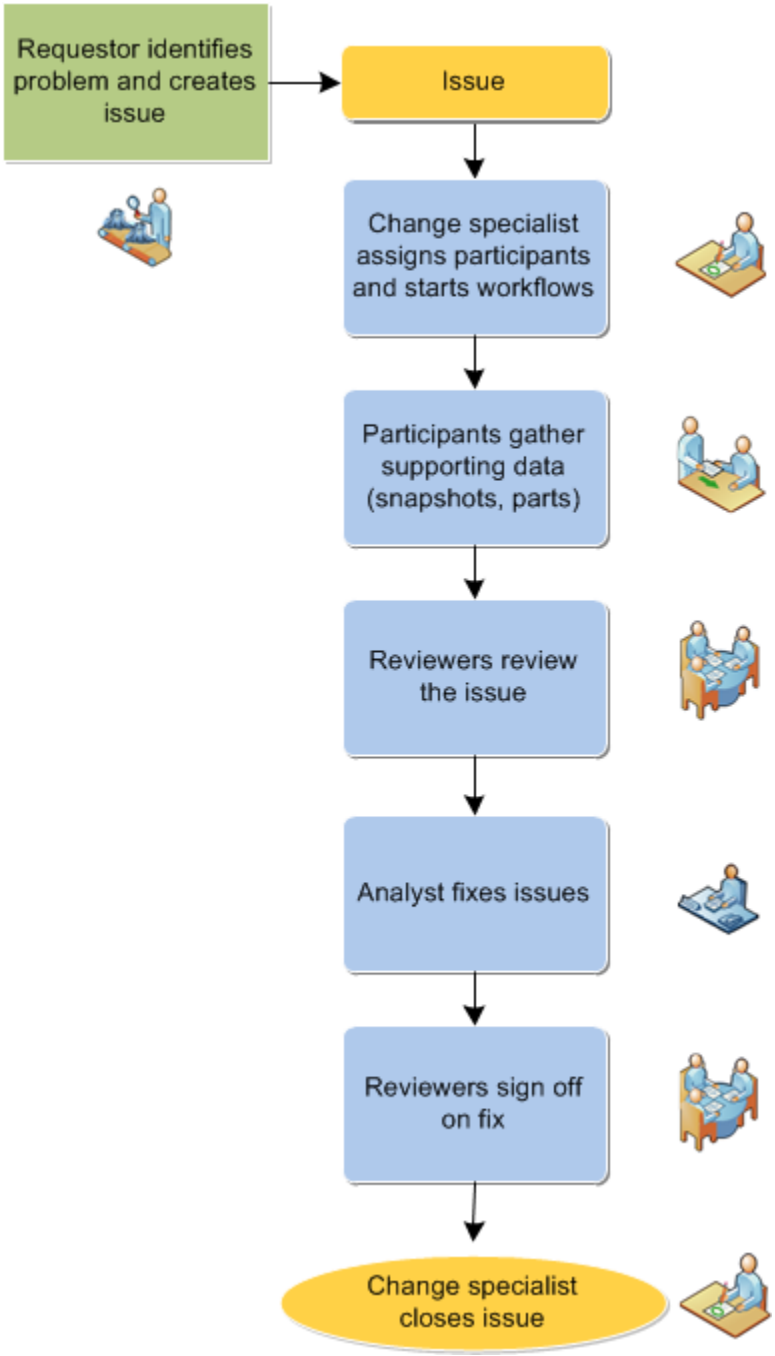
- The change specialist uses the workflow process as a guide through the process.

  Only the change specialist interacts with the Teamcenter workflow process. Review meetings are organized and meeting decisions are manually tracked. Issue status can be tracked by the workflow handler.

Basic tasks in an issue management process

- A requestor identifies a problem and creates an issue report to track and manage it.

- The change specialist assigns participants as the analyst and reviewers.
- Participants elaborate on the issue by gathering supporting reference data, such as snapshots and parts, and store them in folders or datasets associated with the issue.
- The change specialist starts a workflow to automatically step through the review and resolution process.
- Reviewers review the issue and the proposed solution. When they approve the solution, it is assigned to the analyst to fix.
- The analyst executes the change by creating and revising affected items.
- Reviewers sign off on the fix.
- The change specialist closes the issue.



About the participants in issue management process

Different types of users are involved in various phases of the issue management process. Depending on the complexity of the issue, the same person may perform many roles, or many people may perform the same role.

The issue management workflows are set up by default to automatically assign issue review members from the issue participants. For example, an issue management workflow can automatically assign

workflow tasks to the appropriate users based on their participant type. This is referred to as **dynamic participants**.

See your workflow administrator for how your company's issue management workflows are configured or learn more about extending dynamic participants.

> Note:
>
> - Rules that control who can perform what and at what stage of the change process are defined as **Change Manager conditions**.
> - Change contributors can also be added. Change contributors can create solutions for the change notice just like an analyst. They act as a secondary analyst.

Types of participants

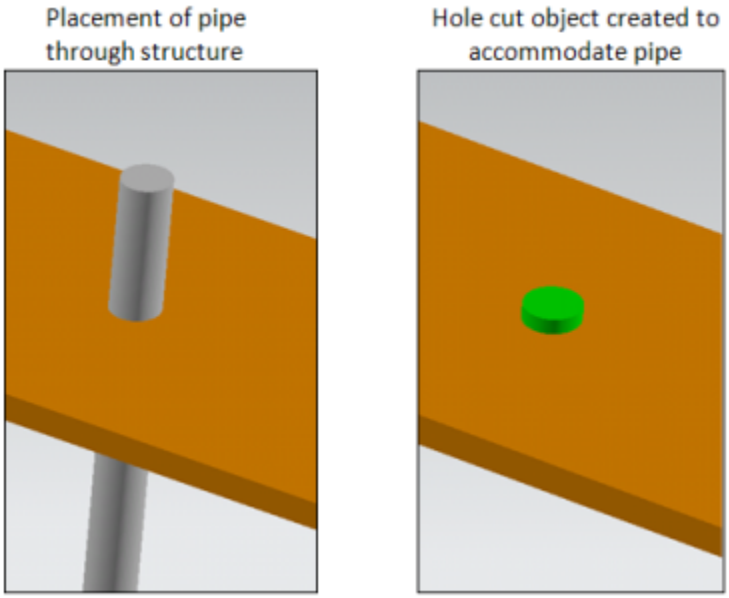
Participants	Description
 **Requestor**	Creates an issue report or is delegated an issue report by another requestor. The requestor is responsible for elaborating the definition of an issue and for providing as much detail as possible to define the problem or request at hand. A requestor may perform the elaboration, or a change specialist may delegate responsibility for elaborating an issue to another user (an analyst or requestor). When you create an issue report, you are its requestor. If responsibility is delegated to another user, that user becomes the current requestor and you are no longer the requestor.
 **Analyst**	Assesses the technical feasibility of an issue or the technical feasibility of implementing the low-level details of an issue. An analyst elaborates the details of an issue by providing a technical recommendation, performing an impact analysis, and planning the implementation. The analyst may perform the implementation or delegate the work to others. During the implementation phase, the analyst monitors the issue execution and is ultimately responsible for ensuring the implementation is performed correctly and according to the plan. This person is generally a senior technical person with knowledge of technical issues and a site's products and business goals.
	Facilitates and manages movement of an issue through the appropriate processes at a site. Change specialists also work to continuously improve the issue management process

Participants	Description
Change specialist (change administrators)	itself. They have an understanding of product definitions and a site's issue management process.
 **Reviewers**	Reviews, approves, and authorizes issues. Reviewers make a business decision about whether an issue should proceed. Reviewers are generally senior individuals from various functional areas within a site or individuals who have expertise in some aspect of an issue.

Understanding the penetration request process

About the penetration request process

During ship design, routed systems need to pass through steel structures, but often routed CAD designers do not have the background required to make changes to a ship's structure. Therefore, the routed CAD designer must request that a penetration be made in the structure of the ship.



Teamcenter and NX provide all the tools you need to create, track, and respond to penetration requests. A penetration request is created in NX and stored in Teamcenter. However, you can view, manage, and act on the penetration requests without leaving the NX environment. In addition, using Teamcenter, you can:

- Use Issue Manager to search for and view penetration requests. You can also send them through a workflow process and view their progress.

- Use the Lifecycle Viewer to view selected elements or any portion of the structure.

Participants in a penetration request

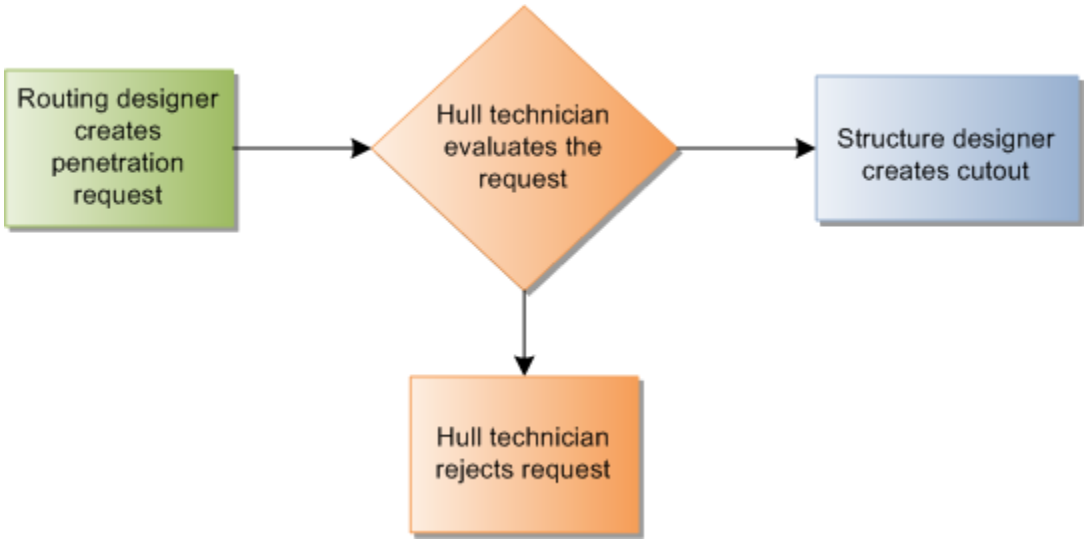
There are three primary users in the penetration request management process:

- CAD designers (electrical, mechanical, or outfitter) who initiate the penetration request and add parts and data into respective folders in NX.
- Hull technicians who evaluate, update, and approve or reject the request. Hull technicians may also reassign the request to the CAD designer for rework.
- Structural designers who implement the requests, update structures in NX as needed, and sign off on the work.

  Other participants become involved if a penetration request needs to be **escalated to a liability**.

Basic tasks in a penetration request

- A request for a penetration begins in NX, where a designer modifies a part and makes a request for a penetration, which is stored as a penetration request in Teamcenter. Designers can also define multi-penetration requests and request that a penetration be removed or deleted.
- An administrator, called a change specialist, assigns participants to review and implement the request.
- The assigned hull technician reviews the request. The technician launches the routes and/or structures in NX or Lifecycle Viewer and elaborates by updating properties and adding markups.
- When the hull technician approves the request, it is assigned to the structural designer to implement. The hull technician can also reject the request.
- The structural designer executes the request by creating and revising the affected objects and signs off on the task, closing the workflow.



Before you begin

Prerequisites

There is no licensing for Issue Manager.

Prerequisites include:

- Lifecycle Viewer if users want to access issues and data from Lifecycle Viewer (create or update an issue or launch issue scene snapshots into Lifecycle Visualization). A Lifecycle Viewer license is required.
- Change Manager
- Workflow
- Teamcenter Integration for NX if you want to manage penetration requests in Teamcenter.

Enable Issue Manager

Issue Manager does not need to be enabled before you use it, but during installation, **Issue Management** must be selected, as well as its prerequisites:

- Under **Extensions**, select:
  - **Lifecycle Visualization** and then:
    - **Teamcenter Visualization 9 (Embedded) for Rich Client**
    - **Teamcenter Visualization 9 (Stand-alone) for Rich Client**
  - **Enterprise Knowledge Foundation** and then:
    - **Change Management**

- **Issue Management**
- **Penetration Request Management**

> Note:
>
> **Penetration Request Management** is required if you want to manage penetration requests in Teamcenter.

To work with penetration requests you, must also install Teamcenter Integration for NX.

> Note:
>
> You can log on to Teamcenter only once. If you try to log on to more than one workstation at a time, you see an error message.

Configure Issue Manager

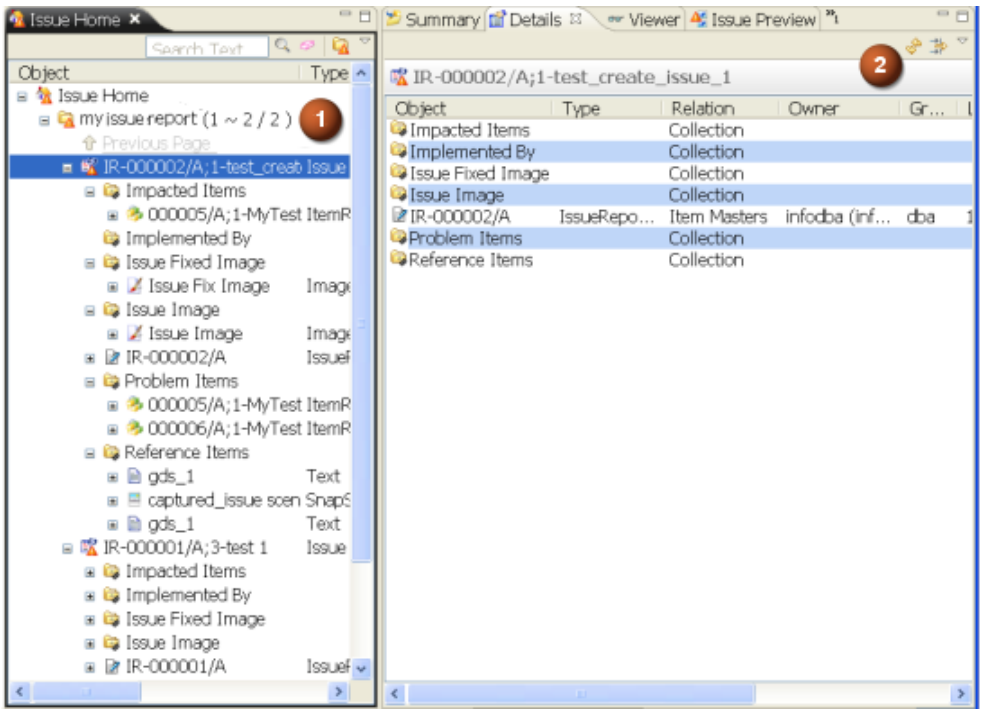
Issue Manager does not need to be **configured**. However, you may want to set these basic configurations:

- Set preferences for how issues and the images associated with them are displayed.
- Create your own workflow processes to work with Issue Manager, although it is not required because Issue Manager provides workflow processes for both **issues** and **penetration requests**.
- **Customize or remove the lists of values (LOVs)**that appear in the **New Issue Report** dialog box when users create an issue report and the **Review** dialog box when users review an issue or penetration request.

Start Issue Manager

In the navigation pane, click **Issue Manager**  .

Issue Manager interface



1	**Issue Home** view	Contains lists of issue report or penetration request revisions based on searches defined by system administrators and users.
2	**Issue Manager** perspective	Contains **views to display issue properties, snapshots of issues, and related items**.

Issue Manager tabs

Tab	Description
Summary	Displays the property information of the selected object.
Details	Displays the children of the selected component in the **Issue** tree.
Viewer	Displays the registered viewer for the selected component in the **Issue** tree.
Impact Analysis	Provides graphical where-used and where-referenced search capabilities.

Tab	Description
Issue Preview	Displays thumbnail images captured before and after a fix for each issue report or penetration request revision selected.
Issue List Details	Displays details about all the issues, Teamcenter visual issues, or penetration requests in a list, such as a list of all the issues you created.

Issue Manager menus

All Issue Manager menus are standard Teamcenter rich client menus with the following additions.

Menu command	Description
File→New→Issue Report	Displays the **New Issue Report** dialog box and allows the creation of an issue object.
Tools→Assign Participants	Assigns users, group members, or role members to perform certain tasks during the review process.
Tools→Review Issue	Allows the review of an issue or penetration request and the recording of a decision.

Issue Manager buttons

Button	Description
Manage Issue Lists 	Displays the **Manage Issue Lists** dialog box and allows the creation, modification, or deletion of searches to find issues, visual issues, and penetration reports. This button is in the **Issue Home** view.

What are perspectives and views?

Within the rich client user interface, application functionality is provided in *perspectives* and *views*.

View	The basic display component that displays related information in a UI window.
Perspective	A collection of one or more views and their layout.

Some applications use a perspective with multiple views to arrange how functionality is presented. Other applications use a perspective with a single view.

You can use the **HiddenPerspectives** preference to prevent the display of some Teamcenter perspectives in the rich client.

If your site has online help installed, you can access the application and view help from the rich client **Help** menu.

2. Creating issues and penetration requests

About creating issues and penetration requests

Using Issue Manager, you can manage many types of objects, including issue reports, Teamcenter visual issues, and penetration requests. Any user can create an issue report to capture, track, and fix issues with a product. You can also create an issue report in the context of the problem part and the problem report is automatically added to the folder of problem items. For the other types of issues and penetration requests, you create them in other applications, including NX, Lifecycle Viewer, ClearanceDB, and Teamcenter Community Collaboration:

- To create a penetration request, use NX. For more information, see the NX documentation.
- To create a Teamcenter visual issue, use **Lifecycle Viewer**.
- To create a Visual Issue in NX, use **NX and Teamcenter Community Collaboration**. (These objects are not managed in Teamcenter.)

You can also:

- **Add related data** to an object's folders.
- **Check out and update issue reports**.

  > Note:
  >
  > You cannot update a penetration request using Issue Manager. Instead, you must use NX. For more information, see the NX documentation.

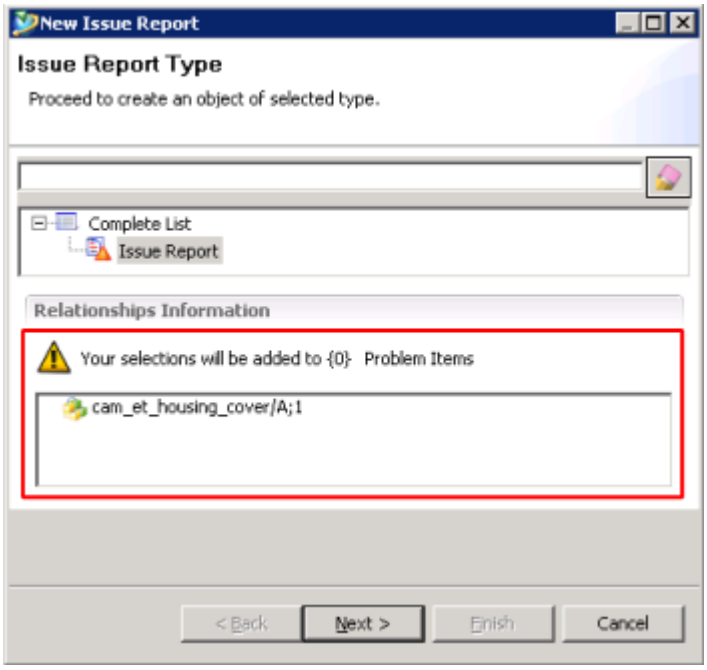
- **Change an issue or penetration request into a change management object**, such as a change request.

Create an issue report

Any user can create an issue report in Teamcenter to capture, track, and fix issues with a product. The issue can be created in the context of a part revision. The part revision is automatically copied to the issue report **Problem Items** folder.

1. Choose **File→New→Issue Report→Create** or choose **File→New→Issue Report→Create in Context**.

   The **New Issue Report** dialog box appears. If you created it in the context of a part, the part that you selected in Step 1 appears in the bottom portion of the dialog box.



2. In the **New Issue Report** dialog box, select **Issue Report** and click **Next**.

3. Type a name in the **Synopsis** box and a description of the problem in the **Description** box.

   You can also type an issue report ID and revision in the **Issue No.** and **Revision** boxes. If you do not provide an ID and revision number, Teamcenter provides them automatically.

4. (Optional) From **Design Review Gate** and **Issue Category**, select an option.

   Your system administrator can customize or remove these options.

5. Click **Finish**.

   If you created the issue report in the context of a part revision, the part revision is automatically copied to the issue report **Problem Items** folder.

6. Copy and paste existing item revisions or datasets into the issue report revision as problem parts, impacted parts, or reference items.

Update an issue

You can change the name and description of an issue report.

> Note:
>
> You cannot update a penetration request using Issue Manager. Instead, you must use NX. For more information, see the NX documentation.

1. Select the issue report that you want to update.

   > Note:
   >
   > You can update these objects only if you are the owner or have checkout and checkin privileges granted by an access control list, access rules, or another method.

2. Click either the **Summary** or **Viewer** pane.

3. Click **Check out and edit**.

4. Change the following:

   - **Name**
   - **Description**

   > Note:
   >
   > - You cannot edit the ID property.
   > - You cannot change the participants from the **Summary** or **Viewer** pane. Choose **Tools→Assign Participants** instead.

5. Do one of the following:

   - To save your changes in the **Summary** pane, click either **Save properties and check in** or **Save and keep checked out**.
   - To save your changes in the **Viewer** pane, click **Save**.

Creating and reviewing Visual Issues in NX

You can manage issues on 2D and 3D visualization data throughout the product life cycle by creating Visual Issues in NX and managing them in Teamcenter community collaboration. You can update, lock, and flag Visual Issues for attention. You can create Visual Issues either from your Web page or from within your 2D and 3D viewer. Visual Issues is a feature that must be activated for your site collection.

For more information about Visual Issues, see the Teamcenter community collaboration or NX Help.

Create a change management report from an issue or penetration request

If an issue or penetration request needs to be managed in Change Manager (for example, the issue's fix requires a product structure change or there are two conflicting penetration requests called a liability), you can change the issue report or penetration request into a change management report and manage it using Change Manager.

1. Right-click the issue report or penetration request revision and choose **Derive Change**.

   To create a change object from an issue report or penetration request, the **CM_change_derivations** preference must have **IssueReport/ProblemReport** in its list of values.

   When you change the issue report into a change management report, the change request is automatically placed in the **Implemented By** folder. The behavior is the same as for a problem report.

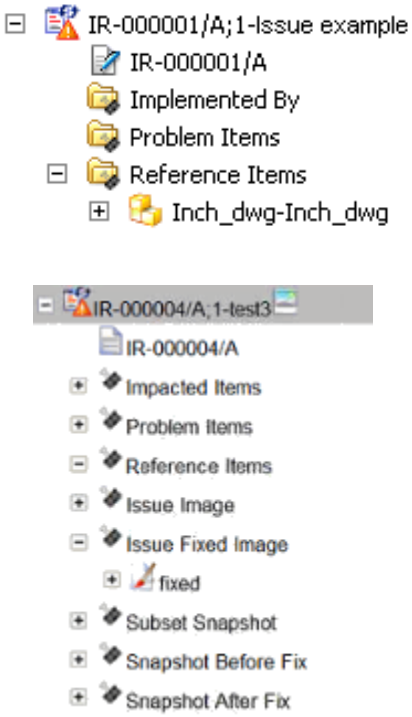
2. (Optional) **Select Open on Create** to open the derived change.

3. Click **Finish**.

3. Managing issue data

Adding issue data

When you create an issue report, Teamcenter visual issue, or a penetration request, empty folders are created for you to populate with objects related to it, such as supporting documents and objects that are impacted by the issue. The following shows the folders created when you create an issue report. These folders are shown as columns in the **Issue List Details** view.



You create the appropriate relations by adding objects to these folders, including search results. For example:

- To create a relationship between a part and an issue, add the part revision to the issue's **Problem Items** folder.
- To associate related information (such as analysis documents and system logs) with an issue, add any Teamcenter object, including datasets, to the **Reference Items** folder.

You can also drag a file from the operating system. If you drag a file from the operating system and drop it in the **Reference Items** folder, you are asked to create a new Teamcenter dataset.

Note:

You can also **set up images to display as thumbnails** for quick viewing in the **Preview Image** pane. The images do not appear in folders by default. You can change Teamcenter to display the images in folders.

Contents of folders in an issue and penetration request

The following tables explain the contents of each folder associated with an issue or penetration request.

Learn about Teamcenter visual issues folders.

Issue reports and penetration requests

The following folders are automatically created for issue reports and penetration requests:

Reference data folders

This folder	Contains
Problem Items	The part that must be modified to fix the issue. It should be a specific part revision. It cannot be an item.
Reference Items	Information, such as analysis documents, text files, XML files, images, and system logs, related to an issue or penetration request, including datasets. It can be any workspace object that is useful for fixing the issues or penetration request, including markups, ad-hoc notes, and images. It can also contain a stand-alone viewer or the Lifecycle Viewer session file.
Implemented By	Information about the implementation of the fix. It is generally left empty. Note: If you change the **issue report into a change management report**, the **Implemented By** folder is automatically filled. The behavior is same as for a penetration request.

Image data folders

The folder	Contains
Issue Image	Thumbnail images of an issue or penetration request before and after it is fixed.

The folder	Contains
Issue Fixed Image	
Snapshot Before Fix **Snapshot After Fix**	One of the following visual data captured from Teamcenter lifecycle visualization: • A 2D snapshot • Product view, including the configured product structure (dynamic product structure referencing Teamcenter configuration settings). Can be displayed in the Structure Manager application.

Penetration requests

In addition to the folders listed in the previous table, a penetration request also has the following folders:

The folder	Contains
Penetrating Items	The routing parts (pipe, stock, and so on).
Penetrated Items	The structure items that are being penetrated for the request.
Subset Snapshot	The subset that has the recipe indicating the precise revision of structure part, the routing part and the hole cut part, which you can launch in NX to view the request in detail, loaded as it was when the request was created.
HangerPart	The hanger part specified when the request was created.
StructureParts	The structure items that are being penetrated for the request.
RoutingParts	The routing parts (pipe, stock, and so on).
CompensationPart	The compensation part specified by the user when the request was created.
HoleCutObject	The new hole cut object part that is created for the request.

Upload an image and attach it to an issue

You can upload an image and attach it to an issue in Issue Manager using the **File→New** menu or the **Summary** view.

1. In Issue Manager, view the issue to which you want to add the image.

2. Do one of the following:

   - Click the **Summary** view, select **Issue Attachments**, and click **Add New**.

- Choose **File→New→Dataset**.

3. From the **Type** list, select **Image**.
4. Click **Next**.
5. Type a name in the **Name** box and a description of the image in the **Description** box.
6. Click **Browse** and navigate to a file. Click **Open**.
7. From the **Reference List**, select **Image**.
8. Select a relation, such as **Issue Image**. The relation you select determines the folder in which the image is placed. The available relations are:

   - **Issue Image**
   - **Issue Fixed Image**
   - **Subset Snapshot**
   - **Snapshot Before Fix**
   - **Snapshot After Fix**

9. Click **OK**.

The dataset is attached to the issue in the appropriate folder.

Attach an existing image to an issue

You can manually attach images, such as 2D snapshots or product views, to issue report revisions.

1. Cut or copy an image, such as a 2D snapshot or product view dataset.
2. View the issue report revision in the **Summary** view.
3. Click **Paste Special**.
4. Select a relation, such as **Issue Image**. The relation you select determines the folder in which the image is placed. The available relations are:

   - **Issue Image**
   - **Issue Fixed Image**

- **Subset Snapshot**
- **Snapshot Before Fix**
- **Snapshot After Fix**

5. Click **OK**.

   The dataset is attached to the issue in the appropriate folder.

Delete data attached to an issue

1. In the **Summary** view, click **Issue Attachments**, and select the image you want to delete.
2. Click **Cut**.

   The dataset is deleted from the issue.

4. Viewing issues and penetration requests

About viewing issues and penetration requests

In Issue Manager, issues are organized in issue lists. By default, two issue lists are provided:

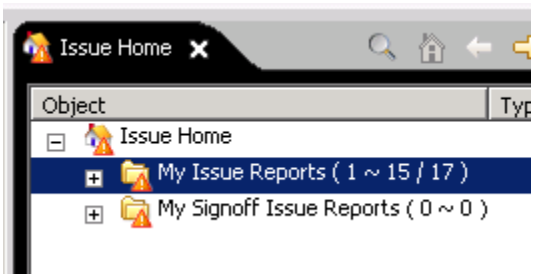
- **My Issue Reports**

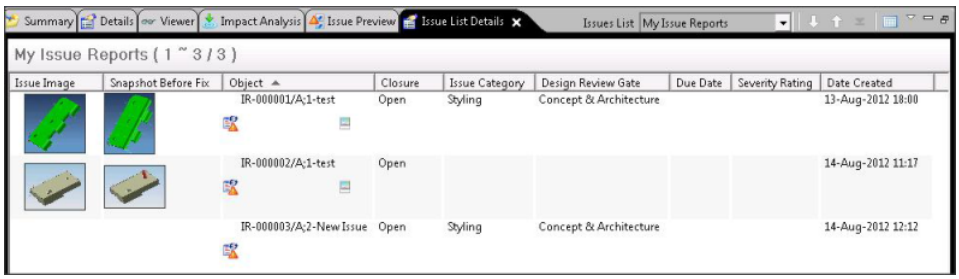
  List of issues that you created.

- **My Signoff Issue Reports**

  List of issues in a workflow that require you to review them.

You can view the issue lists in the **Issue Home** as a list or in the **Issue List Details** view as a table.

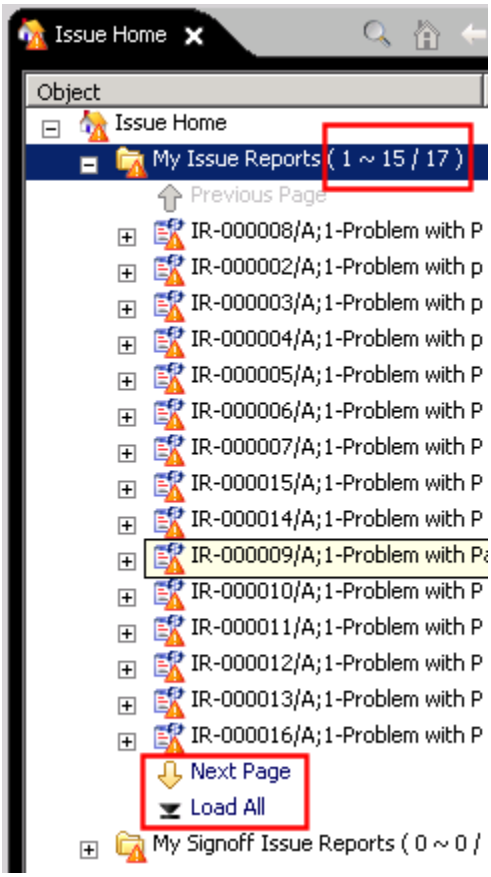




You can also **set up your own issue lists** for issue reports, **Teamcenter visual issue**, or penetration request.

View issues and penetration requests as a list in the Issue Home view

The **Issue Home** view displays issues in a list, one page at a time. By default, the size of the page is 15 issues. For example, in the figure, **15/17** indicates that it displays the first 15 of 17 issues when you open the folder.



Note:

You can set the number of items displayed using the **ISSUE_issuelist_page_size** preference.

When you click on **My Issue Reports,** Teamcenter automatically switches to the **Issue List Details** tab and collapses the **Issue Home** tab. Double-clicking on the **Issue List Details** tab returns you to the **Issue Home** tab.

1. In the **Issue Home** view, click the issue list containing the issues you want to view. For example, click **My Issue Reports**.

   To run a search to be sure you have all the issues, right-click the issue list and choose **Refresh**.

   The first page of issues appears.

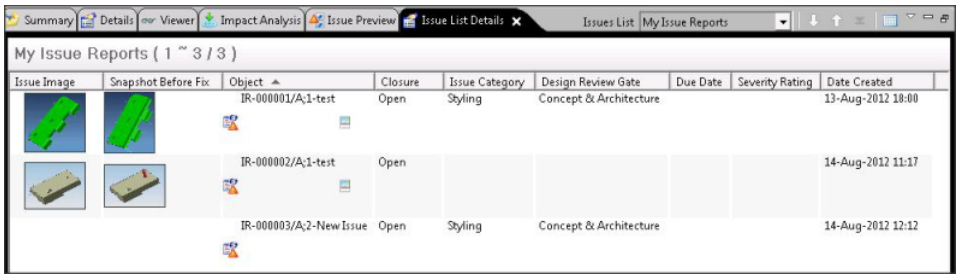
2. To display the next page, below the list, click **Next Page**.

3. To display all of the issues, below the list, click **Load All**.

Viewing issues as a table in the Issue List Details view

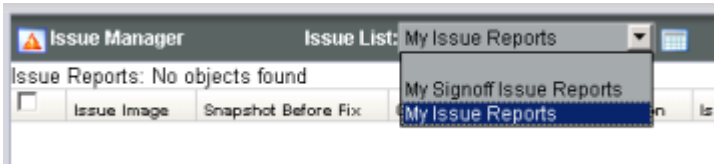
About the Issue List Details view

You can view issue reports in an issue list as a table in the **Issue List Details** view. It allows you to see all your issues quickly and view thumbnail images of the associated images. Once you see the issue or image you are interested in, you can click it to display more information in the **Issue Home** view.

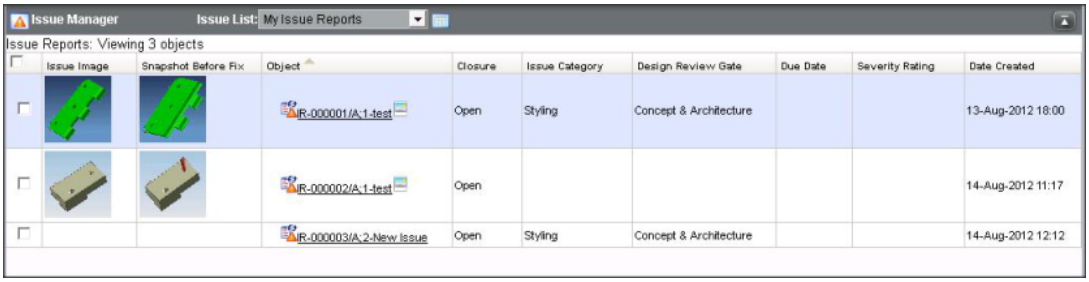


View issues in the Issue List Details view

1. In Issue Manager in the **Issue List Details** view, set **Issue List** to the list of issues you want to display, for example, **My Issue Reports**.



   The issues in the issue list appear in the **Issue List Details** table.



2. (Optional) Do any of the following to make viewing easier:

To	Do this
Sort a column	Click a column header.
Adjust the width of columns	(Optional) Place the cursor between the columns and drag it to change the width. The settings are saved across sessions and settings.

You can also **configure which columns are displayed and their order**.

3. (Optional) Do any of the following to view more information about an issue in the **Issue List Details** table:

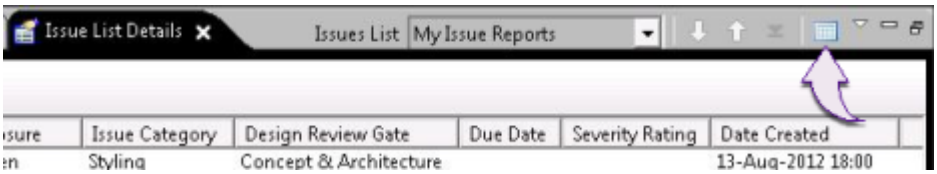
To view	Do this
The details of an issue and all its attachments	Double-click the issue in the **Object** column. **The issue appears in the Issue Home view**.
An image	Double-click the image. It appears in the browser.
A 2D snapshot or product structure	Click the 2D snapshot or product structure in the **Snapshot Before Fix** or **Snapshot After Fix** column. The viewer appears with the image displayed.

Configure the columns of the Issue List Details view

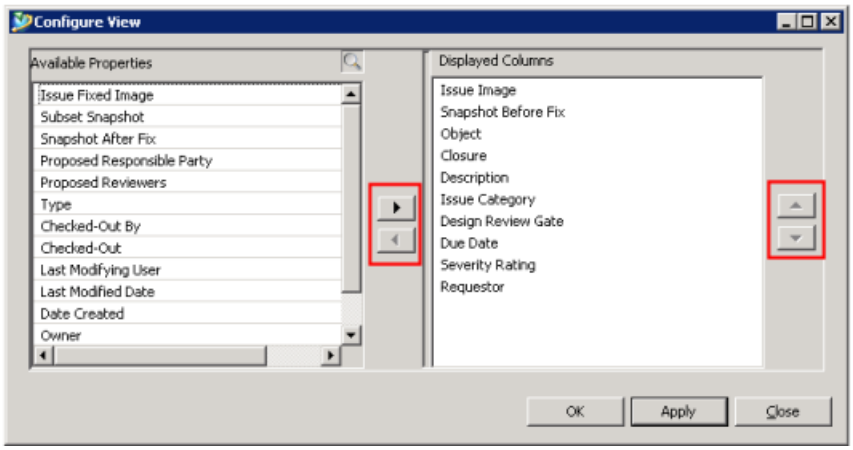
You can show or hide the columns in the **Issue List Details** view and change their order. For example, you may want to remove several of the image columns to improve the rate at which Teamcenter displays the list of issues or to clear the display of all but the most important images. Any changes you make in one client, such as the rich client, are reflected in the other.

> Note:
>
> To define which properties are available for viewing in columns of the **Issue List Details** view, use the **ISSUE_list_table_view_column_candidates** preference.

1. From the **Issue List Details** view, click the **View Settings** tool .



2. In the **Configure View** dialog box, use the right and left arrows to move the properties from the **Available Properties** list to the **Displayed Columns** list and the reverse.



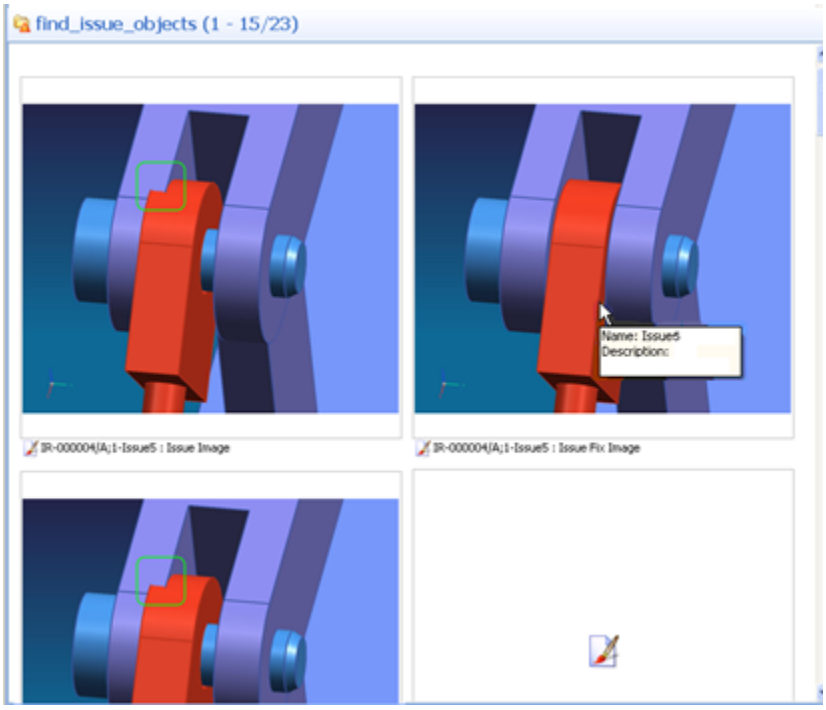
3. To change the order of the displayed columns, select a property in the **Displayed Columns** list and click the up or down arrow on the right to move its position.

4. Click **OK**.

Previewing issue images

About previewing images

In the **Image Preview** view, you can quickly view thumbnail images of an issue or penetration request before and after it is fixed. The image captured when the issue or request is created is on the left and the image captured when the issue is fixed and ready for final approval is on the right. If an image is not available, a blank area appears as shown in the figure.

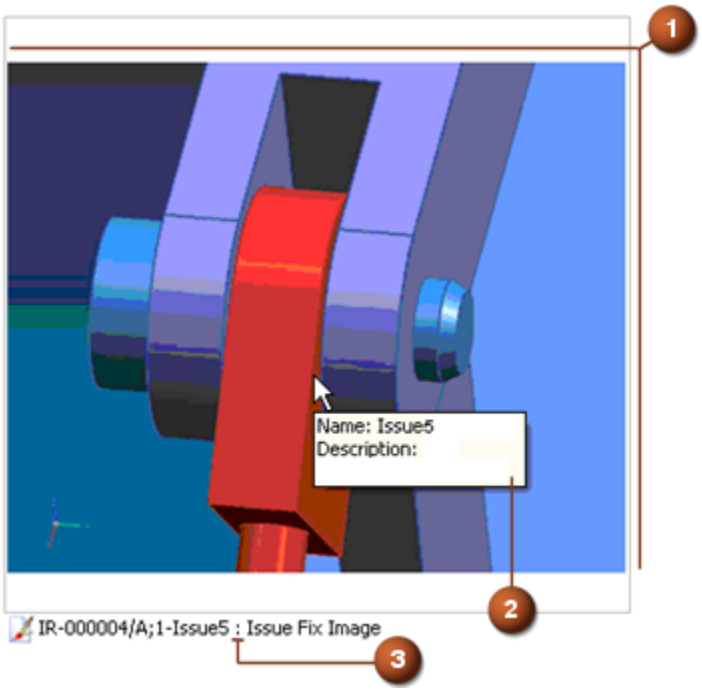


A title appears under each image made up of the issue report or penetration request revision and the image names. When you move the cursor over a thumbnail image, tool tip information for the issue report revision appears.

Preview issues are usually captured and saved from another application, such as NX or Lifecycle Visualization, that is integrated with Issue Manager. You can copy an existing image dataset and use the **Paste Special** command (select either the **Issue Image** or **Issue Fixed Image** relation type) to set up the images that can be previewed.

Configuring previewing of issues and penetration requests

You can configure the following about the previewing of thumbnail images:



1	Size of the images	Use the **ISSUE_preview_image_size** preference to change the size of the preview. The default is 250 by 250 pixels.
2	Tool tip information	By default: • For the image before fix, the tool tip displays a short description of the issue, design review gate options, the issue category, and its due date. • For the image after the fix, the tool tip displays comments about the image. Use the **ISSUE_preview_tooltip_properties_before_fix** and **ISSUE_preview_tooltip_properties_after_fix** preferences.
3	Delimiter between the two parts of the title	Use the **ISSUE_preview_image_name_separator** preference to specify the delimiter that appears in the title between the issue report revision and the image name.

Note:

You can also **set up the images so they are stored in folders** within the issue list in the **Issue Home** view.

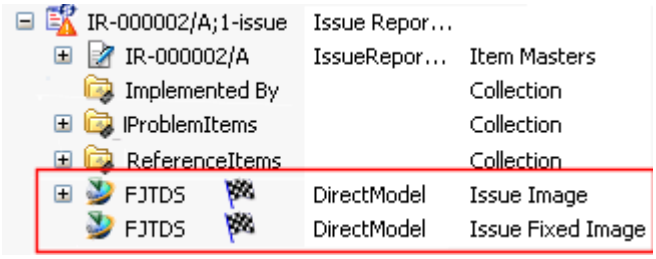
Set up the images to be previewed

The following steps show how to set up an existing image dataset to appear as thumbnails to show an issue before or after it is fixed.

1. If necessary, create a dataset containing an image before or after it is fixed.
2. Select the dataset and choose **Edit→Copy**.
3. Select the issue report revision to which you want to associate the dataset.
4. Choose **Edit→Paste special**.

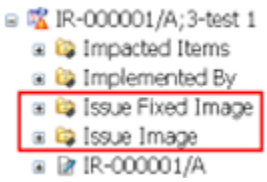
   The **Paste** dialog box appears, displaying a list of relation types.
5. Select either the **Issue Image** or **Issue Fixed Image** relation type.
6. Click **OK**.
7. Click **OK**.

   The dataset appears in the issue report revision. A flag appears next to it.



Store preview images in folders in issue lists

Preview images do not appear in folders by default in an issue list in the **Issue Home** view. You can change Teamcenter to store the images in folders.



1. Choose **Edit→Options**.

   The **Options** dialog box appears.

2. Expand the **General** folder and select the **Item Revision** button.

   The item revision options are displayed in the right pane of the dialog box.

3. Click the **Related Object** tab.

4. In the **Available Relations** list, select **issue Fixed Image** and **Issue Image**.

5. Click the **+** button to move the **issue Fixed Image** and **Issue Image** relations to the **Shown Relations** list.

6. Click **OK**.

View preview issue images

1. Do one of the following:

   - To display all the images from all the issue report revisions or penetration requests in an issue list, in the **Issue Home** pane, select the issue list containing the issue.

     > Note:
     >
     > You cannot highlight multiple issue lists.

   - Expand the issue list and select the issue report revisions or penetration requests whose images you want to preview.

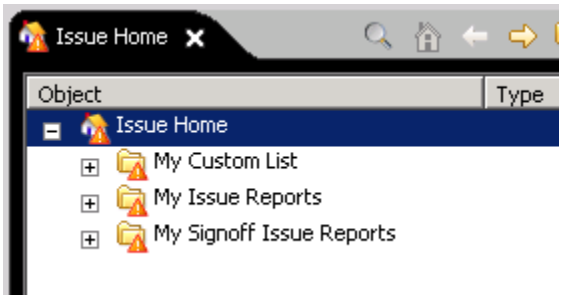
2. Click the **Issue Preview** pane.

   The image captured when the issue is created is on the left and the image captured when the issue is fixed and ready for final approval is on the right. If there are multiple images with these relation types, Issue Manager displays the first image file.

Managing issue lists

About creating an issue list

You or your system administrator can define a list of issues, including Teamcenter visual issues and penetration requests. For example, they appear with the default folders in the **Issue Home** view as shown in the figure.



Set the query data to be as specific as possible to ensure better performance when you expand the list. You can have as many issue lists as you like. For example, for a penetration request, you might want to create issue lists that display penetration requests by:

- Status (Working, Open, Holdup, Liability, Rejected, Complete, and so on)
- Design area
- Discipline (electrical, piping, hull outfitting, HVAC, and so on)

There are two kinds of issue lists:

- System-defined issue lists

  Issue lists created by a Teamcenter administrator and shared by all users at a site. They are populated by saved queries and do not require users to provide search criteria. Teamcenter administrators can create, modify, or delete these issue lists.

  The **My Signoff Issue Reports** issue list, shown in the figure above, is a system-defined issue list that comes standard with Teamcenter.

  To execute the search, expand the folder.

- User-defined issue lists

  Issue lists created by individual users for their personal use that are unique to them.

> Note:
>
> A search name cannot contain a forward slash (/).

Create an issue list

1. In the **Issue Home** view, click **Manage issue lists**.
2. In the **Manage issue lists** dialog box, click **Add**.

3. Select the type of issue list. The default type is **User-defined**. If you are an administrator, you can select **System-defined** from the list if you want the issue list available to all users.

4. Leave the **Show** check box selected.

5. Click the **Assigned search** list to select the query template that is assigned to the issue list.

   The list contains your user-defined saved queries and the following templates specific to Issue Manager:

   - **_find_issue_objects**

     Finds all issue report revisions matching the criteria set in step 7.

   - **_find_issue_objects_2**

     Finds all items impacted by the issue and matching the criteria set in step 7.

   - **find_my_issue_reports**

     Finds all issues assigned to the user specified in step 7.

   - **_find_my_signoff_issues**

     Finds all issues assigned to the user specified in step 7.

   - **IssueReportRevision**

     Finds all issues using the criteria specified in step 7.

   > Note:
   >
   > If you add a query template that requires the user to provide additional information, an error is displayed when that issue list is opened by a user.

6. (Optional) Change the name of the issue list. **Issue List name** defaults to the name of the query template you selected in the **Assigned search** list.

7. Configure the query that the issue list performs.

   a. Click **Configure**.

   b. In the **Configure Search** dialog box, set the options. The options depend on the type of query you are creating.

   c. Click **OK**.

8. Click **OK**.

Refresh an issue list

1. To refresh an issue list in the **Issue Home** view:

   - If the issue list in the **Issue Home** view is closed, open it.
   - If the issue list in the **Issue Home** view is already open, right-click it and choose **Refresh**.

2. To refresh an issue list in the **Issue List Details** view, select another list and then select the desired list again.

   There is no refresh in the **Issue List Details** view.

Show or hide issue lists

1. In the **Issue Home** view, click **Manage Issue Lists** .

2. To hide an issue list, clear the issue list's **Show** check box in the **Manage Issue Lists** dialog box.

3. To display a hidden issue list, select the issue list's **Show** check box.

4. Click **OK**.

Delete an issue list

1. In the **Issue Home** view, right-click the issue list folder and choose **Delete**.

   You can delete your user-defined issue lists. You can delete system-defined issue lists only if you are an administrator.

2. In the **Delete issue list** dialog box, click **OK**.

5. Working with Teamcenter visual issues

Teamcenter visual issues overview

You can use Teamcenter visual issues to capture and track design problems with 2D images and 3D models. Created and viewed in the standalone viewer or the Lifecycle Viewer, visual issues are managed in Issue Manager.

Visual issues consist of an issue report and an issue report revision, along with an automatically generated product view, 2D snapshot, or session file. When reviewers send an issue report revision to the standalone viewer or the Lifecycle Viewer, the visualization data associated with the issue is displayed in the same state it was in when the issue was created.

Configuring Teamcenter visual issues

Configuring the viewer to work with Teamcenter visual issues

Use the following Teamcenter preferences to configure the standalone viewer to work with Teamcenter visual issues:

Use this preference	To do this
ManagedIssueServer	Enable the creation of Teamcenter visual issues. When you send visualization data from Teamcenter to the standalone viewer, the viewer is automatically configured to create Teamcenter visual issues. However, if you also use the Teamcenter community collaboration issue management system, you may need to set **ManagedIssueServer** to **true** for the viewer to create issues in the Teamcenter database.
ManagedIssueList	Specify the URL of your visual issues list. When you choose **Review** tab→**Issues** group→**View Issues List**  in the standalone viewer, the browser launches and displays either the default list of visual issues (all issue report revisions) or a filtered list.
ManagedIssueListQuery	Display a customized visual issues list. When you choose **Review** tab→**Issues** group→**View Issues List**  in the standalone viewer, the browser launches and displays a visual issues list consisting of issue report revisions that match the criteria of a Teamcenter saved search.

Enable Teamcenter visual issues

Set the Teamcenter **ManagedIssueServer** preference to **true** to enable Teamcenter visual issues in the stand-alone viewer.

1. In Teamcenter, choose **Edit→Options**.
2. Near the bottom of the **Options** dialog box, click **Index**.

   Options related to specifying preferences are displayed.
3. In **Search On Preference Name**, type **ManagedIssueServer**, and press Enter.
4. In **Preferences List**, click **ManagedIssueServer**.

   The **Preference Details** section displays the current settings for the **ManagedIssueServer** preference.
5. In **Current Values**, type **true**.
6. Click **Modify**.

   The preference is saved.
7. Click **Cancel** to close the **Options** dialog box.
8. In Teamcenter, select an item revision that includes visualization data, and then choose **File→Open in Lifecycle Visualization**.

   Teamcenter sends the visualization data to the stand-alone viewer. Once the data is loaded, the viewer is configured to create Teamcenter visual issues.

Specify the URL of your Teamcenter issues list

You must use the Teamcenter **ManagedIssueList** preference to specify the URL where the issues list will display. When you choose **Review** tab→**Issues** group→**View Issues List**  in the standalone viewer, the browser launches and displays the default list of visual issues.

1. In Teamcenter, choose **Edit→Options**.
2. In the **Options** dialog box, click **Search**.
3. In **Search On Preference Name**, type **ManagedIssueList**, and press Enter.
4. In **Preferences List**, click **ManagedIssueList**.

   The **Preference Details** section displays the current settings for the **ManagedIssueList** preference.
5. In **Current Values**, type the URL using this syntax:

http://<URL>/#/showChanges

> Example:
>
> **http://10.200.30.400:7001/#/showChanges**

6. Click **Modify**.

   The preference is saved.

7. Click **Cancel** to close the **Options** dialog box.

8. In Teamcenter, select an item revision that includes visualization data, and choose **File→Open in Lifecycle Visualization**.

   Teamcenter sends the visualization data to the standalone viewer.

9. Choose **Review** tab→**Issues** group→**View Issues List**  .

   The configured browser displays the default visual issues list.

> Note:
>
> The default visual issues list includes all of the issue report revisions that have been created. Alternatively, you can use a Teamcenter saved search to display only visual issues that match predefined search criteria.

Filter the Teamcenter visual issues list

You can use a Teamcenter saved search to filter the visual issues list according to your specified criteria.

1. In Teamcenter, choose **Window→Show View→Search**.

2. At the top of the **Search** view, click **Select a Search**  .

3. In the **Change Search** dialog box, expand **System Defined Searches**, and then select **IssueReport Revision**.

4. Click **OK**.

   The issue report revision search options are displayed.

5. Construct your search by specifying criteria such as **Issue Category** and **Issue Assignee**.

6. At the top of the **Search** view, click **Add Search to My Saved Searches**  .

7. In the **Add Search to My Saved Searches** dialog box, type a name for the search, and then click **OK**.

   The search is saved.

8. Choose **Edit→Options**.

9. Near the bottom of the **Options** dialog box, click **Index**.

   Options related to specifying preferences are displayed.

10. In **Search On Preference Name**, type **ManagedIssueListQuery**, and press Enter.

11. In **Preferences List**, select **ManagedIssueListQuery**.

    The **Preference Details** section displays the current settings for the **ManagedIssueList** preference.

12. In **Current Values**, type the name of the saved search.

13. Click **Modify**.

    The preference is saved. When you display the visual issues list from the standalone viewer, it includes only visual issues that match your predefined search criteria.

Creating Teamcenter visual issues

Creating Teamcenter visual issues

Teamcenter issue reports are used to capture and manage design problems. When you create a visual issue in the Lifecycle Viewer or the standalone viewer, the state of the viewer is captured by a 2D snapshot, product view, or session file, which is automatically attached to the issue. When reviewers open the issue in the viewer, the associated visualization data is displayed for evaluation.

Visual issue creation involves the following tasks:

- Understand the **conditions** under which different types of visualization datasets (2D snapshots, product views, or session files) are generated and attached to visual issues.
- Create **a single visual issue** in the Lifecycle Viewer or the standalone viewer.
- Create visual issues from one or more **2D or 3D snapshots**.
- Create visual issues from one or more **Clearance results**.
- Manually **attach visualization datasets** to an existing issue report revision.

Visual issue dataset creation behavior

When you create a visual issue in the Lifecycle Viewer or the standalone viewer, the state of the viewer is captured by a 2D snapshot, product view, or session file, which is automatically attached to the issue. The type of visualization dataset generated and associated with the visual issue varies depending upon these factors:

This visualization dataset	Is created under these conditions
2D snapshot	A 2D image is the active document in the viewer. The image also must be associated with an item revision, or a session file is created instead of a snapshot.
Product view	A 3D model is the active document in the viewer. In addition, the following conditions must be met: • The model must be associated with an item revision. • The model must be larger than a single part. • The model must include configured product structure (dynamic product structure referencing Teamcenter configuration settings). • The Viewing window must not include any inserted models. If any of these conditions are not met, a session file is created instead of a product view.
Session file	A 2D image or 3D model is the active document in the viewer.

Create Teamcenter visual issues

You can create Teamcenter visual issues in the Lifecycle Viewer or the standalone viewer.

1. From Teamcenter, send an item revision that includes visualization data to the Lifecycle Viewer or the standalone viewer.

2. Adjust the view of the image or model.

   > Tip:
   >
   > Any changes you make to the state of the Viewing window are preserved by the visual issue, including markups, measurements, and part or layer visibility.

3. Select the nodes in the tree that you would like to attach as problem items. If nothing is selected, the parent node will be attached. If a leaf component node is selected, the problem item that is associated with that issue will be the closest item revision ancestor to that leaf component node.

4. On the **Issues** toolbar, click **Create and log an issue**  .

   - or -

   In the standalone viewer, choose **Review** tab→**Issues** group→**Add New Issue**  .

   The **Visual Issue** dialog box appears.

5. From the **Type** list, choose **Issue report**.

   > Note:
   >
   > **Issue Report** is the default issue type. Your organization may also allow you to choose from additional issue types.

6. In the **Name** box, type a name for the issue report.

7. In the **Data Type for state information** section, choose how you want to capture the state of the viewer:

   - **Session File**
   - **Product View or 2D Snapshot**

     Depending upon your data and your settings in the Teamcenter Integration Visual Issue Preferences, the viewer may generate a 2D snapshot or product view when the issue is created. Choose one of the following Teamcenter relation types for the dataset:

     - **Snapshot Before Fix**
     - **Snapshot After Fix**

8. Click **OK**.

   The **Issue Attribute Dialog** appears, displaying the available attributes.

9. In the **Issue Attribute Dialog**, do the following:

   a. Double-click **Synopsis** to provide a name for the issue report revision.

      The **Attribute Edit** dialog box appears.

   b. In **Value**, type a name for the issue report revision.

   c. Double-click any of the other attributes to add information relevant to the issue.

d. Click **OK**.

> Note:
>
> Depending upon the Teamcenter Integration Snapshot Preferences, you may need to specify other information for a 2D snapshot or provide a name for a product view.

The viewer creates an issue report and an issue report revision, along with a 2D snapshot, product view, or session file.

e. If a 2D snapshot or product view cannot be created, do the following to associate a new session file with the issue:

A. If an error message is displayed, click **OK** to close it.

B. In the dialog box that asks you if you want to create a session file, click **Yes**.

A session file is created and attached to the visual issue.

Create Teamcenter visual issues from snapshots

You can create Teamcenter visual issues from 2D or 3D snapshots. If you have multiple snapshots, a separate issue report is created for each selected snapshot.

1. From Teamcenter, send an item revision that includes visualization data to the Lifecycle Viewer or the standalone viewer.

2. Create one or more snapshots.

3. Select the nodes in the tree that you would like to attach as problem items. If nothing is selected, the parent node will be attached. If a leaf component node is selected, the problem item that is associated with that issue will be the closest item revision ancestor to that leaf component node.

4. Select each snapshot from which you want to create a visual issue. For multiple selections, hold Ctrl as you click each snapshot.

> Tip:
>
> Selected snapshots have a green border.
>
> 

5. Choose **Actions→Issues→From Snapshots**.

- or -

In the standalone viewer, choose **Review** tab→**Issues** group→**Issues From Snapshots**  .

The **Visual Issue** dialog box appears.

6. From the **Type** list, choose **Issue report**.

> Note:
>
> **Issue Report** is the default issue type. Your organization may also allow you to choose from additional issue types.

7. In the **Name** box, type a name for the issue report.

8. In the **Data Type for state information** section, choose how you want to capture the state of the viewer:

   - **Session File**
   - **Product View or 2D Snapshot**

     Depending upon your data and your settings in the Teamcenter Integration Visual Issue Preferences, the viewer may generate a 2D snapshot or product view when the issue is created. Choose one of the following Teamcenter relation types for the dataset:

     - **Snapshot Before Fix**
     - **Snapshot After Fix**

9. Click **OK**.

   The **Issue Attribute Dialog** appears, displaying the available attributes.

10. In the **Issue Attribute Dialog**, do the following:

    a. Double-click **Synopsis** to provide a name for the issue report revision.

       The **Attribute Edit** dialog box appears.

    b. In **Value**, type a name for the issue report revision.

    c. Double-click any of the other attributes to add information relevant to the issue.

    d. Click **OK**.

e. If you selected multiple snapshots, the **Issue Attribute Dialog** appears for each snapshot. Add information relevant to the issue, and click **OK**.

Create Teamcenter visual issues from clearance results

You can create Teamcenter visual issues from clearance results. A separate issue is created for each specified result.

1. From Teamcenter, open a 3D model in the Lifecycle Viewer or the standalone viewer.

2. Perform a clearance check.

3. In the **Results** list, select one or more clearance results. For multiple selections, hold Ctrl as you click each issue.

4. Right-click the clearance result, and select **Create Issue(s)**.

   The **Visual Issue** dialog box appears.

5. From the **Type** list, choose **Issue report**.

   > Note:
   >
   > **Issue Report** is the default issue type. Your organization may also allow you to choose from additional issue types.

6. In the **Name** box, type a name for the issue report.

7. In the **Data Type for state information** section, choose how you want to capture the state of the viewer:

   - **Session File**
   - **Product View or 2D Snapshot**

     Depending upon your data and your settings in the Teamcenter Integration Visual Issue Preferences, the viewer may generate a 2D snapshot or product view when the issue is created. Choose one of the following Teamcenter relation types for the dataset:

     - **Snapshot Before Fix**
     - **Snapshot After Fix**

8. Click **OK**.

   The **Issue Attribute Dialog** appears, displaying the available attributes.

9. In the **Issue Attribute Dialog**, do the following:

    a. Double-click **Synopsis** to provide a name for the issue report revision.

    The **Attribute Edit** dialog box appears.

    b. In **Value**, type a name for the issue report revision.

    c. Double-click any of the other attributes to add information relevant to the issue.

    d. Click **OK**.

    The **Save As** dialog box appears.

    e. Type a name for the clearance results file, and click **Save**.

    The clearance results file is saved to the database.

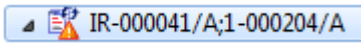
    f. If you are posting multiple clearance results, the **Visual Issue** and **Issue Attribute Dialog** dialog boxes are displayed again. Complete the steps described above for each issue.

    A new visual issue is created for each clearance issue selected in the **Results** list.

Attach visualization data to Teamcenter visual issues

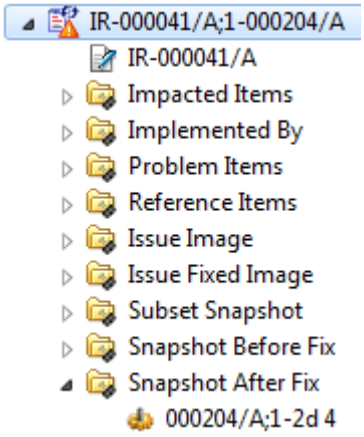
You can manually attach 2D snapshots or product views to issue report revisions.

1. Cut or copy a 2D snapshot or product view dataset.
2. Select the issue report revision.



3. Choose **Edit→Paste Special**.
4. In the **Paste Special** dialog box, choose one of the following relations:
    - **Snapshot Before Fix**
    - **Snapshot After Fix**
5. Click **OK**.

    The dataset is attached to the visual issue.



Note:

When an issue report revision is launched into the Lifecycle Viewer or the standalone viewer, only 2D snapshot or product view in the **Snapshot Before Fix** and **Snapshot After Fix** folders, or session files in the **Reference Items** folder, are automatically opened in the viewer. All other pasted visualization data must be **manually opened**.

Reviewing Teamcenter visual issues

Reviewing Teamcenter visual issues overview

When a Teamcenter visual issue is created in the Lifecycle Viewer or the standalone viewer, an issue report revision is added to the database, along with an associated 2D snapshot, product view, or session file. Issue report revisions are typically accessed using issue lists in Issue Manager. You can configure issue lists to include only visual issues that match search criteria such as **Issue Category** and **Issue Assignee**.

To access your issues, you can launch Issue Manager from within the Lifecycle Viewer. You can also choose to display a list of issues from within the standalone viewer.

When you open a visual issue in the Lifecycle Viewer or the standalone viewer, the visualization dataset associated with the issue is automatically opened and displayed. You can also expand the issue report revision object from an issue list, manually select a visualization dataset, and send it to a supported viewer. You can open 2D snapshots, product views, and session files in the standalone viewer or the Lifecycle Viewer. You can also open product views in Structure Manager.

After opening a visual issue in the viewer, you can choose to update the associated visualization dataset or delete the issue report revision object from the database.

Create a visual issue list in Issue Manager

To access visual issues in Issue Manager, you must use an issue list. You can configure your issue list to include only issues that match specific search criteria.

1. In Issue Manager, in the **Issue Home** view, click **Manage Issue Lists**.

   The **Manage Issue Lists** dialog box appears.

2. Click **Add**.

   A new issue list is displayed.

3. In the **Issue List Name** column, click **New Issue List**.

4. Type a name for the issue list, and press Enter.

5. Select the **Show** check box.

6. For **Assigned Search**, choose **IssueReport Revision** to create a custom search.

7. Click **Configure**.

   The **Configure Search** dialog box is displayed.

8. Set the search options, and click **OK**.

   The **Configure Search** dialog box closes.

9. Click **OK**.

   The **Manage Issue Lists** dialog box closes. In the **Issue Home** view, the new issue list is displayed. Expand the issue list to access the issues matching your search criteria.

Display a list of Teamcenter visual issues in the viewer

You can choose to display a list of visual issues from within the Lifecycle Viewer or the standalone viewer.

On the **Issues** toolbar, click **View existing issues**.

- or -

In the standalone viewer, choose **Review** tab→**Issues** group→**View Issues List**

In the standalone viewer, the configured browser displays the default list of visual issues. In the Lifecycle Viewer, the Issue Manager opens.

Note:

By default, the visual issues list displayed in the browser includes all issue report revisions. You can also specify to display a list of visual issues that match **predefined search criteria**.

Search for visual issues in My Teamcenter

You can create and save custom search queries to access visual issues in My Teamcenter.

Create a saved search for visual issues

1. In My Teamcenter, choose **Window→Show View→Search**.
2. At the top of the **Search** view, click **Select a Search** .
3. In the **Change Search** dialog box, expand the **System Defined Searches** folder, and select **IssueReport Revision**.
4. Click **OK**.

   The IssueReport Revision search options are displayed.
5. Construct your search.

   Example:

   In **Issue ID**, type **IR*** to display a list of every issue. To narrow the scope of the search, specify additional search options such as **Issue Category** and **Issue Assignee**.
6. At the top of the **Search** view, click **Add Search to My Saved Searches** .
7. In the **Add Search to My Saved Searches** dialog box, type a name for the search.

   The search is saved and listed in your **My Saved Searches** folder.

Use a saved search for visual issues

1. In My Teamcenter, at the top of the **Search** view, click **Select a Search** .
2. In the **Change Search** dialog box, expand the **My Saved Searches** folder, and select a saved search.
3. Click **OK**.

The search is performed. If IssueReport Revisions matching your search query are found, they are displayed in the **Search Results** view.

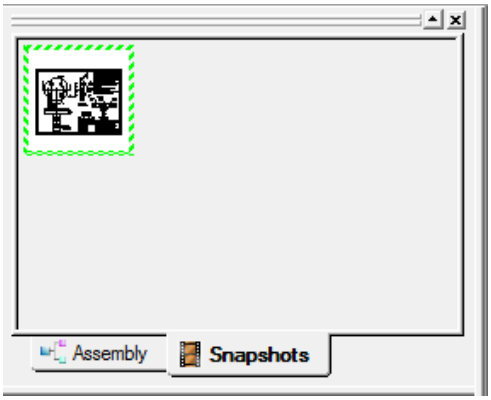
Open Teamcenter visual issues

You can send an issue report revision, along with an associated visualization dataset, to the standalone viewer and the Lifecycle Viewer.

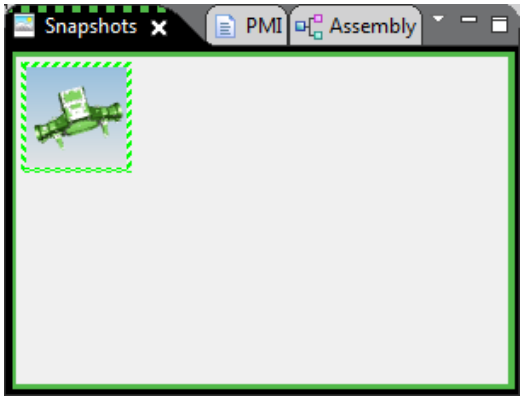
Do any of the following:

- To send a visual issue to the standalone viewer, select the issue report revision, and choose **File→Open in Lifecycle Visualization**.
- To send a visual issue to the Lifecycle Viewer, right-click the issue report revision, and choose **Send To→Lifecycle Viewer**.

The visual issue opens in the viewer and the data is displayed in exactly the same state as it was in when the issue was created or last updated. All 2D snapshots and product views with the **Snapshot Before Fix** and **Snapshot After Fix** relations are displayed on the **Snapshots** tab of the Product Workspace window (standalone viewer) or the **Snapshots** view (Lifecycle Viewer). A dashed border around the thumbnail image indicates that a product view or 2D snapshot is associated with a visual issue.



2D snapshot thumbnail in the standalone viewer



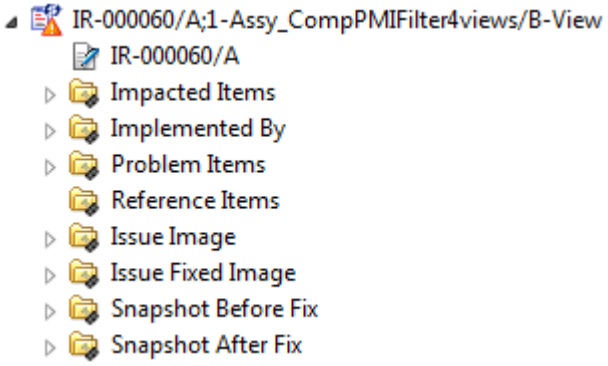
Product view thumbnail in the Lifecycle Viewer

Open Teamcenter visual issue attachments

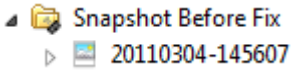
You can open Teamcenter visual issue attachments, including 2D snapshots, product views, and session files, in the standalone viewer or the Lifecycle Viewer. You can also open product views in Structure Manager.

1. Expand an issue report revision.

   The issue folders are displayed.



2. Expand the folders to display visualization datasets, if present.



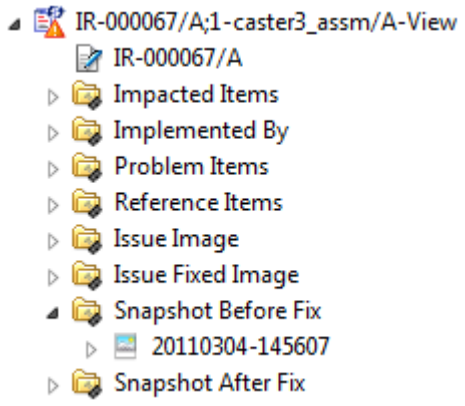
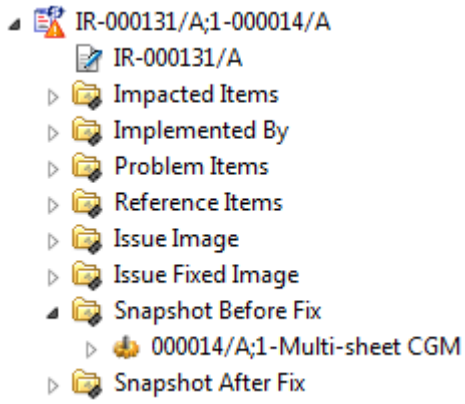
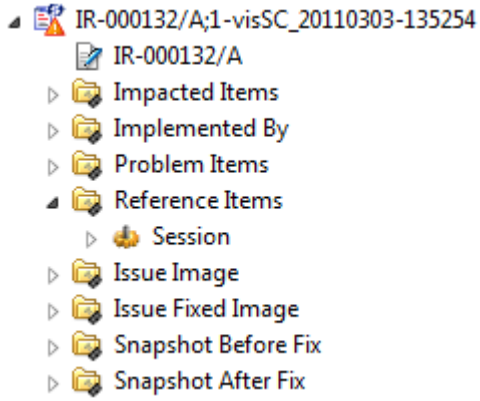
> Note:
>
> For an overview of the visual issue folder structure, see **Teamcenter visual issue attachments**.

3. Do any of the following:

   - To send a visualization dataset to the standalone viewer, select the dataset, and choose **File→Open in Lifecycle Visualization**.
   - To send a visualization dataset to the Lifecycle Viewer, right-click the dataset, and choose **Send To→Lifecycle Viewer**.
   - To send a product view dataset to the Structure Manager, right-click the dataset, and choose **Send To→Structure Manager**.

Teamcenter visual issue attachments

Depending upon your data and the Teamcenter Integration Visual Issue Preferences in the viewer, the following types of visualization data may be generated automatically when Teamcenter visual issues are created.

Visualization dataset type	Visual issue folder	Example
product views	**Snapshot Before Fix** **Snapshot After Fix**	
2D snapshots	**Snapshot Before Fix** **Snapshot After Fix**	
session files	**Reference Items**	

Edit Teamcenter visual issues

In the Lifecycle Viewer or the standalone viewer, you can save new snapshots to an existing Teamcenter visual issue or delete existing snapshots from the issue. You can also update a single snapshot.

1. **Open the visual issue** in the standalone viewer or the Lifecycle Viewer.

2. Modify the contents of the Viewing window.

3. In the **Snapshots** view (Lifecycle Viewer) or on the **Snapshots** tab (standalone viewer), do one of the following:

   - To save new 2D snapshots or product views to the visual issue, select the new snapshots.
   - To delete 2D snapshots or product views from the visual issue, right-click the snapshots that you want to delete, and choose **Delete**.
   - To update a single 2D snapshot or product view, select the snapshot associated with the visual issue.

   > Tip:
   >
   > A snapshot associated with a visual issue has a dashed border.
   >
   > 

4. On the **Issues** toolbar, click **Update existing issue** .

   - or -

   In the standalone viewer, choose **Review** tab→**Issues** group→**Update Existing Issue** .

Delete Teamcenter visual issues in the viewer

You can delete Teamcenter visual issues directly in the standalone viewer or the Lifecycle Viewer.

1. Open the visual issue in the standalone viewer or the Lifecycle Viewer.
2. On the **Issues** toolbar, click **Delete this issue** .

   - or -

   In the standalone viewer, choose **Review** tab→**Issues** group→**Delete Issue** .

   The issue report and issue report revision are deleted.

6. Reviewing and implementing issues and penetration requests

Review an issue or penetration request

> Note:
>
> A penetration request can also be reviewed in NX. For more information, see the NX documentation.

When an issue report is created in Teamcenter, it is only an incident report. Reviewers must investigate and evaluate it. Only the issues that must be fixed immediately are assigned to an analyst. Rejected or deferred issues are marked accordingly.

Only the issue report or penetration request revision objects that are pending for signoff can be reviewed. If the revision object is not pending for you to sign off (either you are not a member of the selected signoff team or the revision object is not in the workflow process), you receive the message that you are not permitted to log a review decision or comment on it.

1. Select the issue report or penetration request revision to be reviewed.

2. Choose **Tools→Review Issue**.

3. Select a **review decision**. The following are the default review decisions for an issue. Your administrator can set the options that appear.

   - **Defer**

     Defer an issue.

   - **Reject**

     Reject an issue.

   - **Close**

     Close an issue.

   - **Reopen**

     Opens a previously closed issue.

   - **Approve Issue**

Approve the issue investigation and agree to assign the issue for fixing.

- **Submit Fix**

  Submit fix for final approval (done by the analyst only).

- **Approve Fix**

  Approve the issue fix implemented by the analyst.

4. Type in comments explaining your decision.

5. Click **OK**.

Fix an issue or penetration request

> Note:
>
> A penetration request can also be fixed in NX. For more information, see the NX documentation.

The status of an issue or **penetration request** is updated as it is assigned and the fix is in progress.

1. In the appropriate tool, such as NX, make the required fix to the product, such as making a hole cut in a structure.

2. Create snapshots, markups, or other documents verifying the fix.

   If the issue report or penetration request is changed into a change management report, the **Implemented By** folder is automatically filled. The behavior is same as when a problem report is changed into a change request in Change Manager.

3. (Optional) Create an image to represent the fixed issue or hole cut and **set it up for quick previewing**.

4. Choose **Tools→Review Issue** and submit your fix for final approval.

Approve a fix made to an issue or penetration request

> Note:
>
> A penetration request can also be approved in NX. For more information, see the NX documentation.

The fix for an issue or penetration request must be approved to close it as fixed.

Because a rejection in a workflow perform signoff task holds up the workflow process, a reject decision from a final reviewer is not desired. Therefore, the team should determine a solution that can be approved. Final reviewers should communicate with the analyst who is applying the fix or with other reviewers for questions and concerns with the fix.

1. Final reviewers launch the issue report or penetration request data into the respective application (NX, Lifecycle Visualization, or other applications) to verify the fix made to the issue.

2. Final reviewers communicate with the analyst (or other team members) with questions and concerns.

3. Final reviewers do either or both of the following:

   - Approve the fix or hole cut from the workflow signoff task.

   - Choose **Tools→Review Issue→Approve Fix**.

   > Note:
   >
   > If you complete the signoff in the workflow process (without choosing **Tools→Review Issue→Approve Fix**), you do not cast a vote. You only move the workflow forward; there is no vote for you recorded.

7. Managing the issue process

About managing the workflow process

Manage the review, approval, and implementation of an issue or penetration request through a Teamcenter workflow process. Issue Manager provides sample issue management and penetration request process templates.

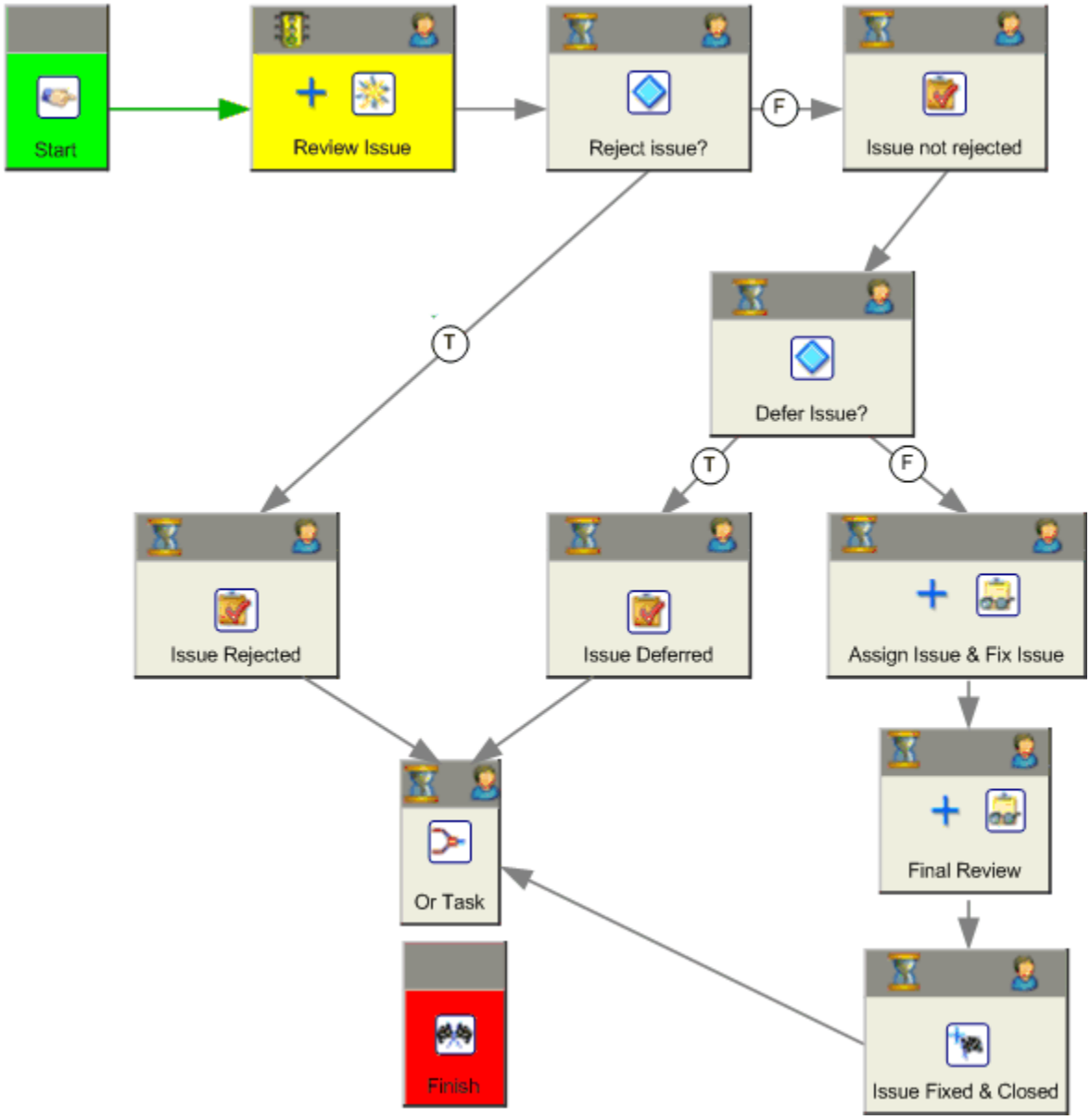
You can customize the following:

- The sample workflow templates. You can also create your own.
- The **review decisions** that appear when a user reviews an issue or penetration request.

Understanding the issue management workflow

About the issue management workflow

The **Issue lifecycle** sample issue management workflow process template provided with Issue Manager follows. It is set up to automatically select reviewers to perform signoff tasks from the issue participants. It also checks the issue review decision when the reviewer performs the signoff task to guarantee that issue review decision is logged by the current user. Finally, it counts the issue review decisions. You can also customize the issue management process to best fit your business practice.



Issue management workflow process overview

The process flow of the **Issue lifecycle** sample issue management workflow process is:

1. The change specialist starts a workflow process after verifying that the issue objects and attributes are complete.

   Issue participants are automatically assigned as issue review members by the **EPM-adhoc-signoffs** action handler.

2. The change specialist attaches the issue revision as the target (there can only be one issue revision) and assigns signoff team members for the **Review Issue**, **Assign Issue & Fix Issue**, and **Final Review** tasks.

3. Issue review members review the issue and sign off on it. Reviewers for the **Review Issue** task cast a vote by highlighting the target issue report revision and choosing **Tools→Review Issue**.

   Issue review decisions are counted and issue statuses are updated by the **ISSUEMGT-update-issue-status** action handler.

   An issue can be rejected, deferred, or verified.

4. When an issue is verified and approved for fix, the issue is assigned to the analyst to provide a solution to fix it.

5. Issue final approval members must review and approve the issue fix.

   The **ISSUEMGT-check-review-decision** action handler checks if an issue review decision has been logged by the current user performing a signoff.

Issue management workflow action handlers

The default issue management workflow process template is configured using three action handlers:

- **EPM-adhoc-signoffs**

  Assigns selected issue participants as issue review members. For example, it assigns proposed reviewers as reviewers for the **Review Issue** and the **Final Review** tasks (issue fix approval) and the proposed responsible party as a reviewer for the **Assign & Fix Issue** task to fix the issue. Customize this according to your business practice.

- **ISSUEMGT-update-issue-status**

  Counts the issue review decisions from all reviewers and updates the issue status.

- **ISSUEMGT-check-review-decision**

  Checks if an issue review decision has been logged by the current user performing a signoff. Use it with **ISSUEMGT_update_issue_status**. If the user performs signoff (approve or reject) without reviewing issue, the signoff decision is reset to **No Decision** to allow the user to review the issue.

Issue management workflow tasks

Review Issue do task 

Use the **Review Issue** task to define the Signoff Team profiles. It also provides the subtasks:

- **select-signoff-team** to define the users to review the issue.

  The **select-signoff-team** condition task is configured to assign selected issue participants as issue review members. For example, the **EPM-adhoc-signoffs** action handler assigns:

  - Proposed reviewers as reviewers for the **Review Issue** and the **Final Review** tasks (issue fix approval)
  - The proposed responsible party as a reviewer for the **Assign & Fix Issue** task to fix the issue.

- **perform-signoff** to allow reviewers to review the issue. Reviewers complete this task by highlighting the target issue report revision and choosing **Tools→Review Issue** to vote on the issue.

  The **perform-signoff** subtask is configured to check the issue report object review record list when a user performs the signoff (approve or reject). If there is no decision logged by the current user, the **ISSUEMGT-check-review-decision** action handler displays the following message advising the reviewer to perform the signoff by reviewing the issue report revision using the **Tools→Review Issue** command:

  ```
  Please perform signoff by reviewing the issue report revision
  from RAC Tools->Review Issue.
  ```

  The signoff decision is reset to **No Decision**.

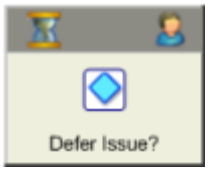
  The review issue operation completes the signoff (with **CR_approve_decision**) automatically.

Reject Issue? condition task 

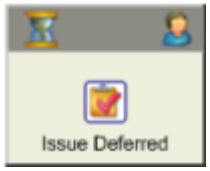
The **Reject Issue?** condition task is configured to count the review records to decide whether a majority of review votes favor to reject the issue. The number of reject review votes needed to pass is specified by the **ISSUEMGT-update-issue-status** handler **threshold** input argument, which sets the percentage required to approve the review decision. If the issue is rejected, the issue attributes are updated and the condition task is set to **TRUE**.

Issue Rejected do task 

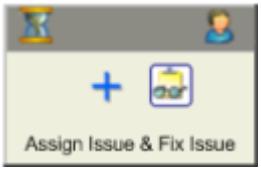
The **Issue Rejected** do task is configured to clean up the review records. The issue is rejected and closed.

Defer Issue? condition task 

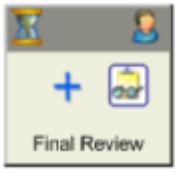
The **Defer Issue?** condition task is configured to decide whether the majority of review records favor to defer the issue. If the issue is deferred, it updates issue attributes, and cleans up review records. Otherwise, it assumes that the issue is verified and a fix must be provided. Review records are cleaned up regardless of the decision.

Issue Deferred do task 

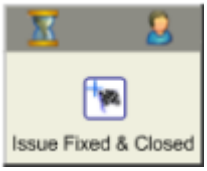
The **Issue Deferred** do task is configured to clean up the review records. The issue is deferred.

Assign Issue & Fix Issue workflow task 

The **Assign Issue & Fix Issue** workflow task assigns the issue to a user by selecting the user as the reviewer. The assigned user (signoff user for this review task) determines the issue solution. When the issue solution is ready for final review and approval, the assigned user performs signoff so the workflow process moves on to the next task. This task is configured to mainly mark the issue as a work in progress.

Final Review 

The **Final Review** workflow task facilitates the issue solution approval. Selected reviewers should review the issue and solution and perform signoff.

Issue Fixed & Closed 

The **Issue Fixed & Closed** do task is configured to clean up the review records. The issue is closed.

Understanding the penetration request workflows

About the penetration request workflows

Three sample penetration request workflow templates are provided with Issue Manager:

- General penetration workflow process (**general_penetration_wf**)
- Escalated penetration workflow process (**escalated_penetration_wf**)
- Delete penetration workflow process (**delete_penetration_wf**)

An administrator must set up the Teamcenter **IssueManagement_WF_template** preference to identify the penetration request workflow templates used. It lists the names of workflow templates for penetration request management. For example:

escalated_penetration_wf

general_penetration_wf

If the structure is already released for this request, and the escalation workflow is available, the request is sent to escalation workflow; otherwise, it is sent to the general penetration request workflow. After evaluating a penetration request from their worklist, hull technicians can choose to have the request continue on in the existing workflow or escalate it to a multi-service penetration.

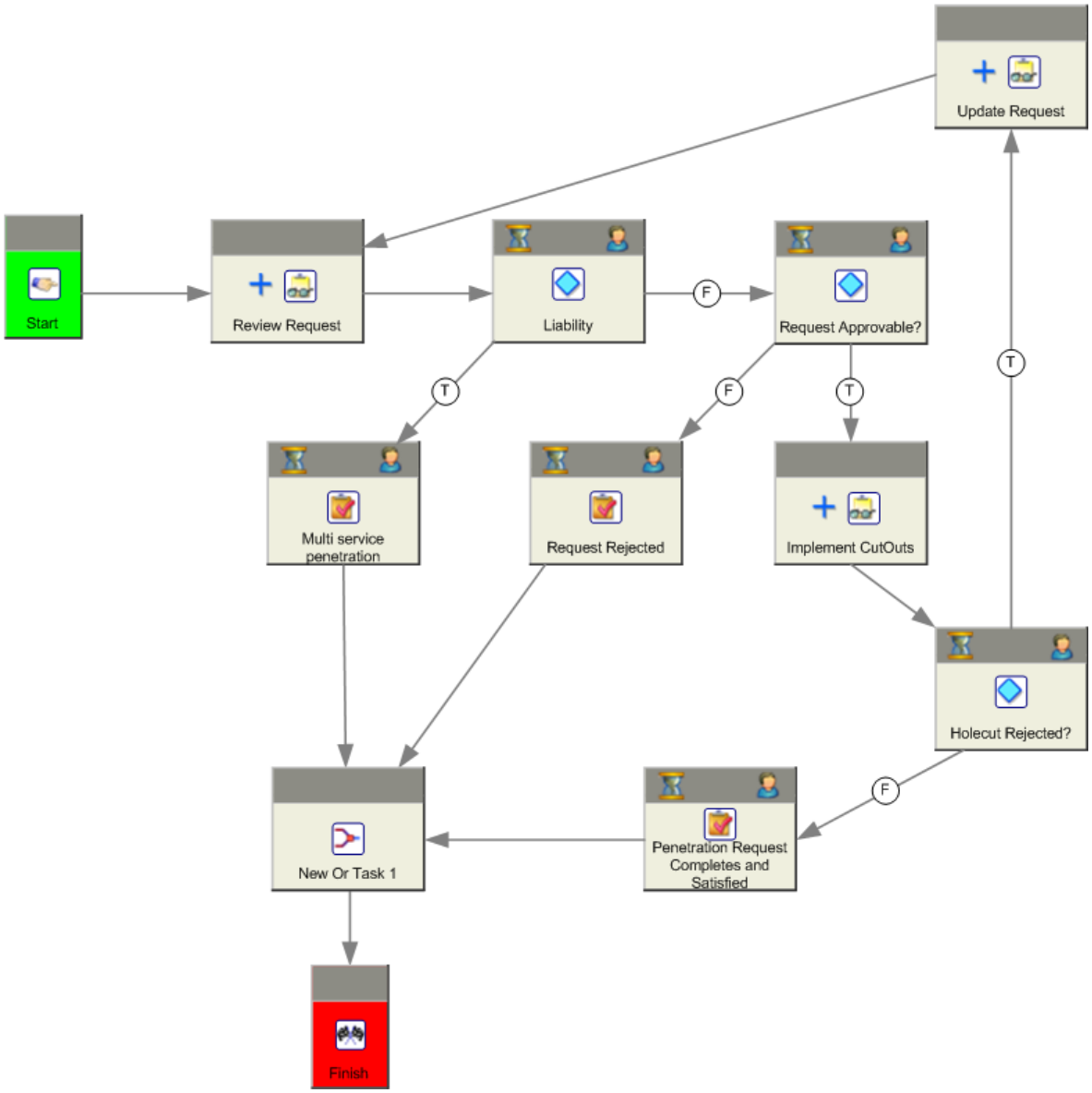
Penetration request status

As a penetration request progresses through the workflows, its status changes from:

- Submitted (in the hull technician's worklist but not yet claimed)
- Working (claimed by the hull technician)
- Liability (after being escalated by the originator)
- Multi-Service working (after being escalated by the hull technician)
- Implementing (after being claimed by a structure designer)
- Rejected (after being rejected by either the hull technician or the structure designer)
- Reworking (after being reassigned to the CAD designer or being pulled back by a CAD designer)
- Complete (after closure of a liability or multi-service penetration request, or after structure designer's signoff)

General penetration request workflow

The **general_penetration_wf** sample penetration request workflow process template provided with Issue Manager follows.



The general penetration request workflow sends the decision to create a hole cut to reviewers (**Review Request** to determine whether or not it is a liability. A liability is a multi-service penetration where two penetration requests conflict with each other and the conflicting requests must be resolved through a more rigorous **Change Manager enterprise change request (ECR) process**.

- If the penetration request is a liability (**Multi service penetration**), the penetration request is closed and a change request process is started.

- If the request is not a liability, the reviewers then decide if it should be implemented (**Request Approvable**). They can reject it or have it implemented. If they decide to have it implemented, the structural designer makes the hole cut and the work is reviewed (**Implement CutOuts**).

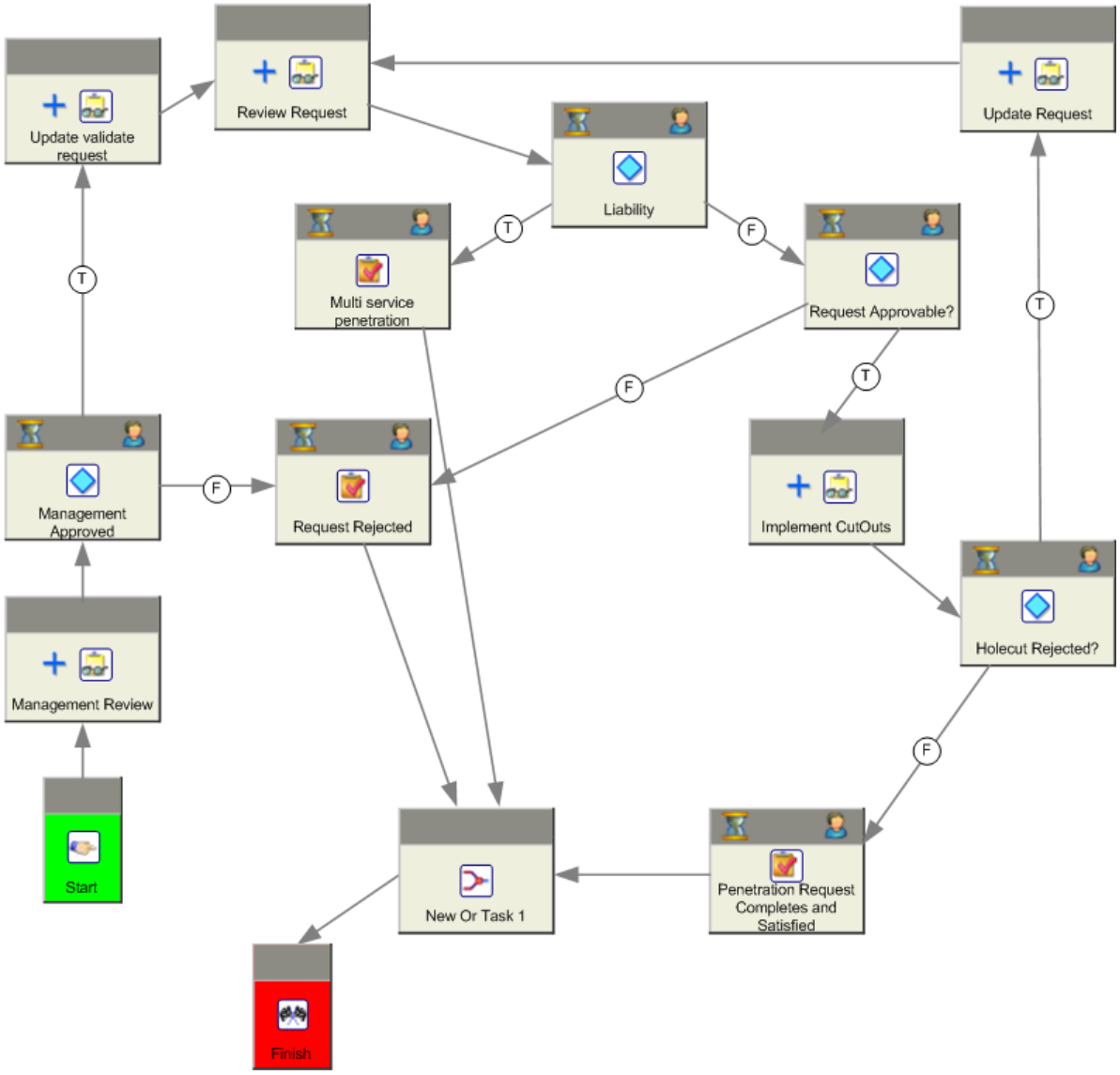
  - If the reviewers reject the hole cut (**Holecut Rejected?** is set to **True**), the CAD designer updates the request (**Update Request**) and it returns to the beginning of the process to be reviewed again (**Review Request**).

  - If the reviewers approve the hole cut (**Holecut Rejected?** is set to **False**), the penetration request is complete (**Penetration Request Repeats and Satisfied**) and the workflow process ends.

You can also customize the general penetration management process to best fit your business practice.

Escalated penetration request workflow

The **escalated_penetration** sample penetration request workflow process template provided with Issue Manager follows.



The escalated workflow is similar to a general workflow but it contains an additional management review (**Management Review**) at the beginning of the process.

- If management does not approve the request, it is rejected (**Request Rejected**) and the workflow process ends.

- If management approves the request, the request is updated (**Update validate request**) and reviewed again (**Review Request**) to determine whether or not it is a liability. A liability is a multi-service penetration where two penetration requests conflict with each other and the conflicting requests must be resolved through a more rigorous Change Manager enterprise change request (CR) process.

- If the penetration request is a liability (**Multi service penetration**), the penetration request is closed and an ECR process is started.

- If the request is not a liability, the reviewers then decide if it should be implemented (**Request Approvable**). They can reject it or have it implemented. If they decide to have it implemented, the structural designer makes the hole cut and the work is reviewed (**Implement CutOuts**).

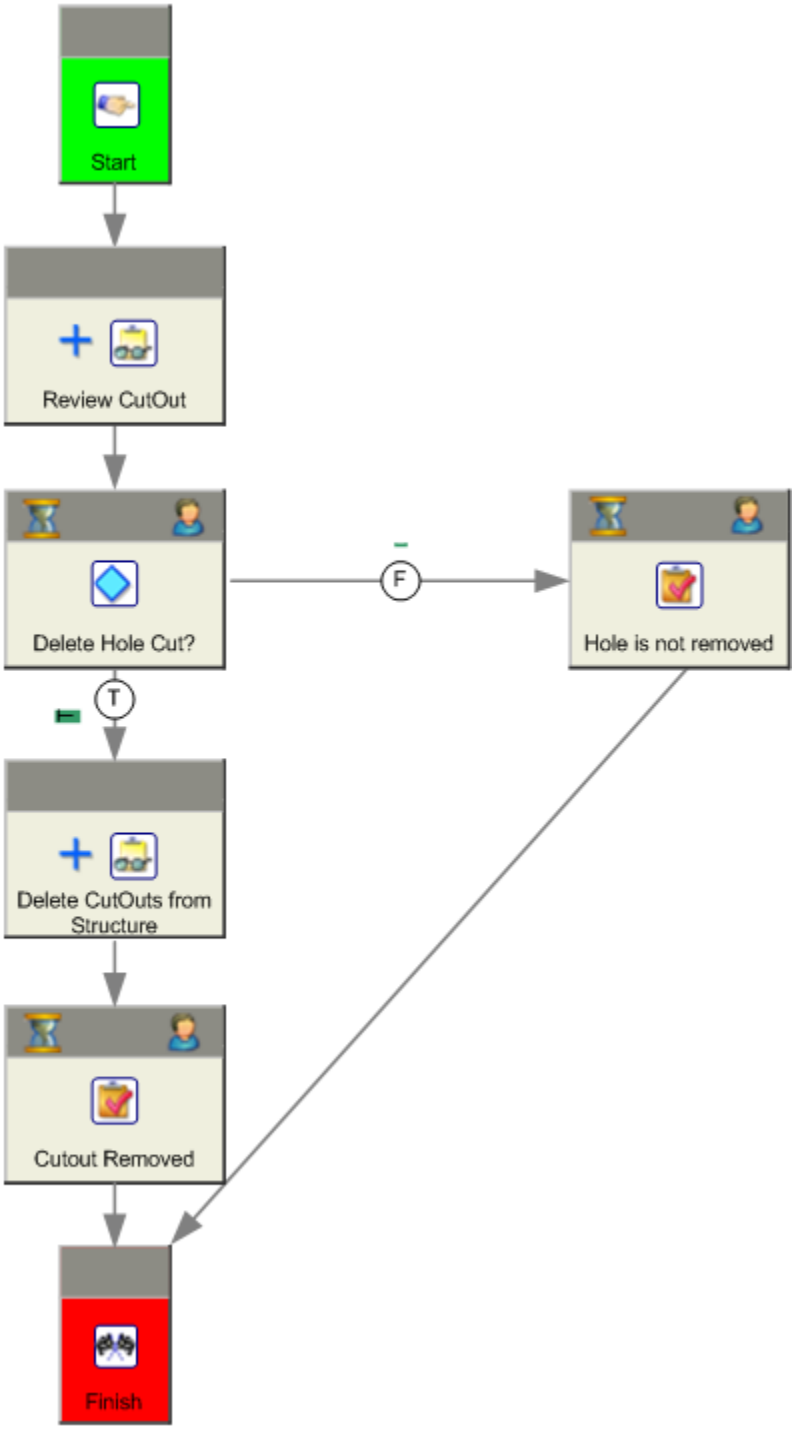
  - If the reviewers reject the hole cut (**Holecut Rejected?** is set to **True**), the CAD designer updates the request (**Update Request**) and it returns to the beginning of the process to be reviewed again (**Review Request**).

  - If the reviewers approve the hole cut (**Holecut Rejected?** is set to **False**), the penetration request is complete (**Penetration Request Repeats and Satisfied**) and the workflow process ends.

You can also customize the escalated penetration management process to best fit your business practice.

Penetration deletion workflow

The **delete_penetration_wf** sample penetration request workflow process template provided with Issue Manager follows.



It sends the decision to remove a hole cut (**Review CutOut**) to reviewers. The reviewers check the hole cut and decide whether or not it can be removed (**Delete Hole Cut?**), for example, if it is required for any other reasons and therefore, cannot be removed.

- If they decide it cannot be removed, the request is rejected (**Hole is not removed**) and the workflow process ends.

- If they decide it can be removed, the structural designer removes the hole cut (**Delete CutOuts from Structure**). Automatic notification is sent to the designer who originated the request, as well as all members of the notification list associated with the structural member through which penetration was requested. The workflow process ends.

You can also customize the delete penetration management process to best fit your business practice.

Assigning participants

Assigning participants

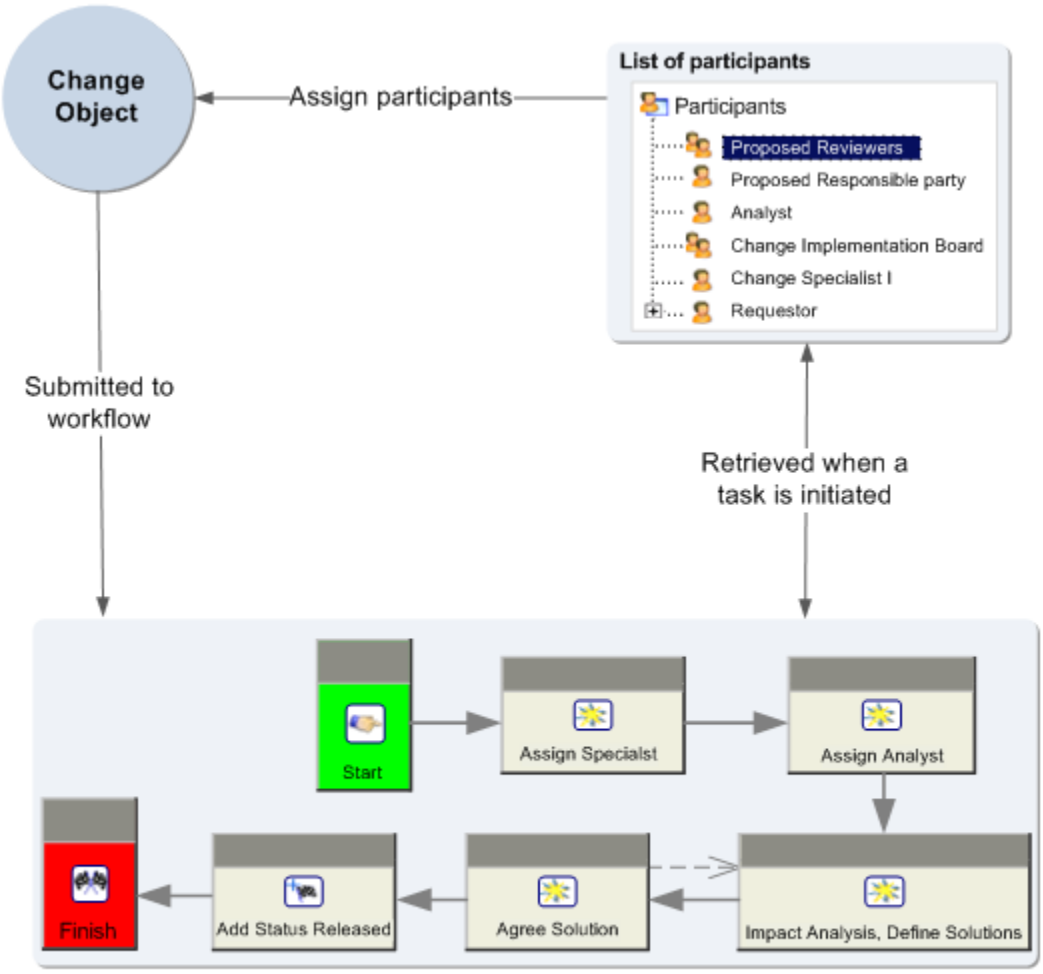
To help track who can work on an issue or penetration request, you assign **participants** to the issue.

You can set the *issue management workflow* to automatically assign issue review members from the issue participants. For example, it can automatically add review members as issue review task reviewers, the responsible member as the issue assignee to fix the issue, and so on.

About dynamic participants

Dynamic participants are workflow handlers that automatically assign users to perform different workflow tasks based on the participant types assigned to a change object that has been submitted to workflow. The default participant types include **Analyst**, **ChangeSpecialist1**, **Requestor**, and **Change Contributor**, as well as others.

A change specialist uses the **Assign Participants** command to assign participants for a change object. Then, when the workflow that is configured for dynamic participants reaches a task and needs to determine who the participants are, the workflow looks at the current assignee for the participant type (for example, **Reviewer** for a **Review** task) and sends it to that user's inbox. If the user assigned to a participant type changes after the workflow starts, the workflow automatically recognizes the new user for any tasks that have not started.



If a workflow is not set up to have dynamic participants, the participants are determined explicitly by selecting users. Those participants are fixed and cannot change.

> Caution:
>
> A user is assigned as a participant with a specific group *and* role. The user's session context must be set to the same group and role they are assigned as to satisfy any Change Manager conditions that are applied.

Assign participants

Note:

- To use the **Assign Participants** command to assign review members based on their roles, a workflow must be configured to use **dynamic participants**.

  See your workflow administrator for information about how your company's issue or penetration request management workflows are configured or learn about designing a workflow with dynamic participants.

- You must have **permission to assign participants**.

  See your workflow administrator for your permissions. For information about controlling who and when can assign participants using Change Manager conditions, see *About configuring conditions to control the actions of participants* and the *BMIDE for Data Model Design*.

1. Select the issue report or penetration request that you want to assign participants to.

2. Choose **Tools→Assign Participants**.

3. In the **Assign Participants** dialog box, select the participant type (for example, **Change Specialist I**).

4. Click either the **Organization** or **Project Teams** tab and select a user to assign to the participant type.

   You can search for a group, role, or user in the box below the tabs.

   Use **Resource Pool Options** to assign a set of group or role members as participants instead of individual users. When a group or role is selected, additional options become available.

   - If you select a group, you can click **Any Member** so any member of the group can be the participant for that type.

   - If you select **Proposed Reviewers** and then select a group, you can click **All Members** to assign all members of the group.

   - If you select a role under a group, you can click **Any Member** and choose **Specific Group** to assign any member of the combined group and role as the participant type or choose **Any Group** to assign any member of any group and the selected role as the participant type.

5. To remove a user as a participant, select the user under the participant type and click **Remove**.

6. To change a participant, select the user under the participant type, select the new user in the **Organization** or **Project Teams** tab, and click **Modify**.

7. Click **Add**.

8. When you are finished assigning participants, click **OK**.

> Note:
>
> If the change object does not automatically display the assigned participants in the Summary, it may be necessary to manually refresh the window.

Permissions for assigning participants

The **type of participant** you are determines what types of participants you can assign:

- Requestor

  The user who created the issue is automatically assigned as the requestor.

- Change specialist I

  The administrator assigns the change specialist. There is only one change specialist allowed.

- Analyst

  The change specialist assigns the analyst. There is only one analyst allowed.

- Proposed reviewers and responsible parties

  These are users who are proposed as reviewers or as the one responsible for fixing the problem (analyst). Anyone can assign proposed reviewers or the proposed responsible party.

  Only one user is allowed as the proposed responsible party, while multiple users are allowed as proposed reviewers.

Initiate a workflow

1. Verify that the data being included in the issue or penetration request to be submitted to workflow is checked in.

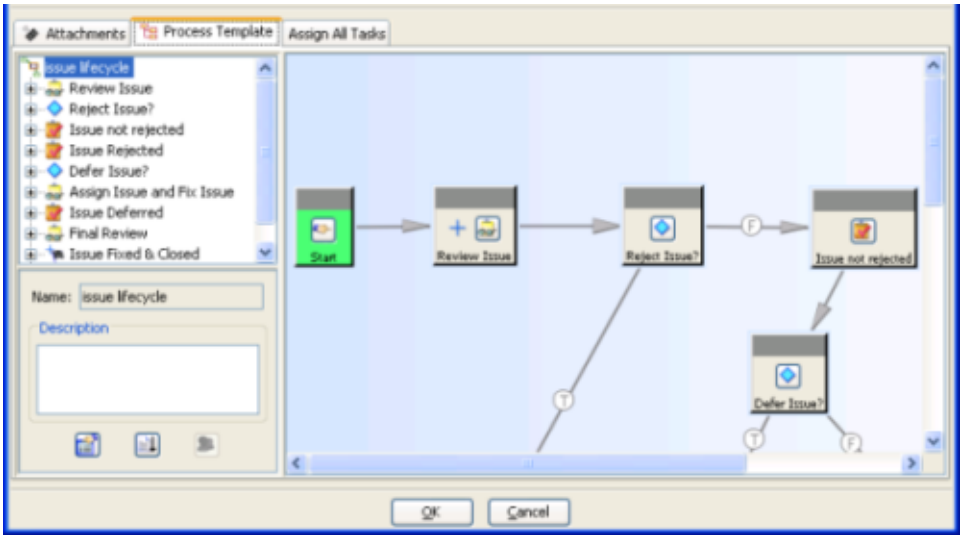
2. Select the issue report or penetration request revision to be included in the workflow and choose **File→New→Workflow Process**.

   The **New Process Dialog** box appears. The value in the **Process Name** box defaults to the name of the issue or penetration request revision you submitted to workflow. The attachments listed are those associated with the issue revision.

3. Set the **Process Template** box to the desired workflow, such as **Issue lifecycle**.

4. (Optional) In the **Description** box, type a description.

5. In the **New Process Dialog** box, click the **Process Template** tab to view the graphical display of the process template, as shown for **Issue lifecycle**.



> Note:
>
> The next step is not necessary if you have the **EPM-adhoc-signoffs** workflow action handler set to automatically assign users.

6. (Optional) Assign reviewers for the review tasks, such as the **Review Issue**, **Assign Issue & Fix Issue**, and **Final Review** review tasks:

   a. In the **New Process Dialog** box, click the **Assign All Tasks** tab.

   b. In the left pane, select a profile or users under a review task to assign and in the **Organization** pane, select the group, role, or user to perform the signoff.

   c. In the left pane, select a review task and in the **Review Quorum** area, set how the review count should be configured, either as a fixed number of reviewers or as a percentage of reviewers.

   d. Select **Wait for Undecided Reviewers** to not allow the workflow to continue until all reviewers have decided.

7. Click **OK** in the **New Process Dialog** box to submit the data to the workflow.

   The process symbol indicates the data is submitted to workflow.

Note:

Because you are the initiator of the process, the next task is sent to your **My Worklist** (inbox).

8. Administering the issue management process

Administering the issue management process

Because issue management processes differ from company to company, you can configure and customize Issue Manager to meet your business needs and help you follow your documented process.

- Set Issue Manager options.
- Set up groups and roles for users to be involved in the change process.
- (Optional) Define custom change management objects.
- Configure conditions to control the actions of participants.
- Create and configure workflows for the change process.
- Configure review decisions

Setting Issue Manager options

You can set the following options to further configure Issue Manager:

- Set preferences for how issues and the images associated with them are displayed.
- Customize or remove the lists of values (LOVs) that appear in the **New Issue Report** dialog box when users **create an issue report**. By default, the lists that appear are **Design Review Gate** and **Issue Category**.
- **Configure the viewing and managing of Teamcenter visual issues**.

About setting up users

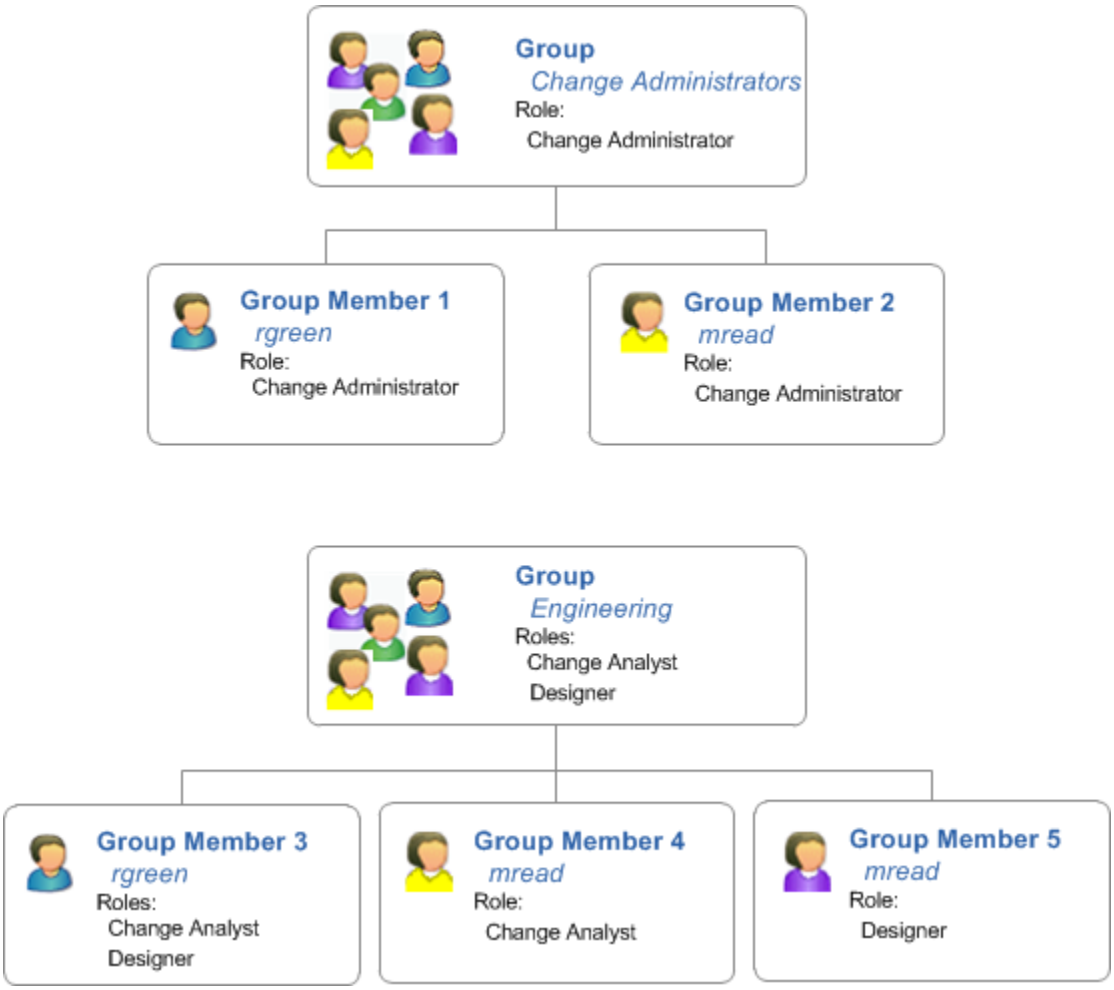
You will want to set up rules to restrict issue management actions to authorized users.

- Use the Organization application to define groups and roles and associate the roles with the participant types. A typical approach is to create a change management group to contain the change specialists.
- Use the Business Modeler IDE to define the conditions that drive access rules used to manage object permissions. In the example shown here, the business rule for creating ECRs is limited to those who are members of the **Change Management** group:

```
isChangeRequestCreatable
OR u.group_name = "Change Management"
```

It is recommended that you create the roles with a similar name to the participant types to avoid confusion. For example, create the **Change Specialist** role to match the **ChangeSpecialist1** participant type.

A sample of a typical organization tree is shown in the figure.



Defining custom change management objects

Use the BMIDE for Data Model Design to create custom change management objects representing the change objects for your change process. The custom objects you create are templates of the different change processes to be used at your site. End users create instances of these change objects, such as change requests, and use them in their workflow processes. Also, to enable users in the change process to create the custom business objects, make new conditions allowing the creation.

List of standard change management business objects.

In addition to creating the custom change management objects, you can also:

- Configure Change Manager pseudofolders in which to store objects related to the created objects and which automatically appear when a user creates an object of that type.
- Create new forms as needed in which to hold custom information about the change management object.
- Add properties, such as change type, to existing change management objects.

  If you want to add persistent properties to change objects, you can extend business classes directly using the Business Modeler IDE. You can also create a dialog box definition by specifying the required and optional properties for an instance creation. Subclasses that do not have their own dialog box definition inherit the dialog box definition of their parent class. To display new properties, you must add them to the style sheets defined for the change object.

> Note:
>
> Before working with Change Manager objects, you must install the Change Management template (**cm_template.xml** file) to your project. During installation, select **Change Management** in the Business Modeler IDE Templates panel in Teamcenter Environment Manager.

About configuring conditions to control the actions of participants

Using the Business Modeler IDE, you can configure Issue Manager to fit your business process by setting specific conditions or rules (called Change Manager conditions). They control which participants can perform specified actions.

To see a listing of all the Change Management on Active Workspace — Usage conditions, see the *Teamcenter Data Model Report* in the Teamcenter documentation on Support Center.

Creating custom workflows

If you do not want to use the default Issue Manager workflow processes, you can create your own or configure the existing ones to meet your business requirements.

Note the following:

- For penetration requests, set up the Teamcenter **IssueManagement_WF_template** preference to identify the penetration request workflow templates used. It lists the names of workflow templates for penetration request management. For example:

  escalated_penetration_wf

  general_penetration_wf

- To have the issue management workflow automatically assign issue review members from assigned participants, configure your workflow for **dynamic participants**.

- **Configure the review decisions** that appear in the **Review** dialog box.

Configuring review decisions

Configuring and localizing review decisions

The review decisions that appear in the review decision dialog box when users review an issue or penetration request are defined in the issue review decision list of values (LOV) in the Business Modeler IDE and localized so they appear in the local language of the user. You can customize or the remove these decisions to fit your business practices. The default review decisions are listed in the following sections:

- **Issue report default review decisions**

- **Penetration request default review options**

Once you define the LOV, use the **ISSUE_review_issue_menu_items_at_workflow_task** preference to set the review decisions for each of the penetration request workflow templates. The valid format is the task name followed by the list of review decisions for that task, separated by a semicolon.

> Example:
>
> **Review Request;Defer;rejectRequest;approveRequest;holdRequest;**
>
> **Final Review;approveHoleCut;rejectHoleCut;removeHoleCut;**

The workflow obtains the current task for the request, and determines if that task is listed in the preference. If it is, it displays the review decisions for that task in the review decision dialog box at runtime. The action handler associated with the review tasks counts the decisions to see if one has a majority defined as threshold (the default is 51%).

Review decisions in the preference's value array, the issue review decision LOV, and the workflow action handler that counts the review decision must match.

Issue report default review decisions

- For the **Review Issue** workflow task, the **Decision** list box of the **Review Issue** dialog box is populated with **Defer**, **Reject**, and **Approve Issue** allowing the workflow to go in different directions.

  - **Defer**

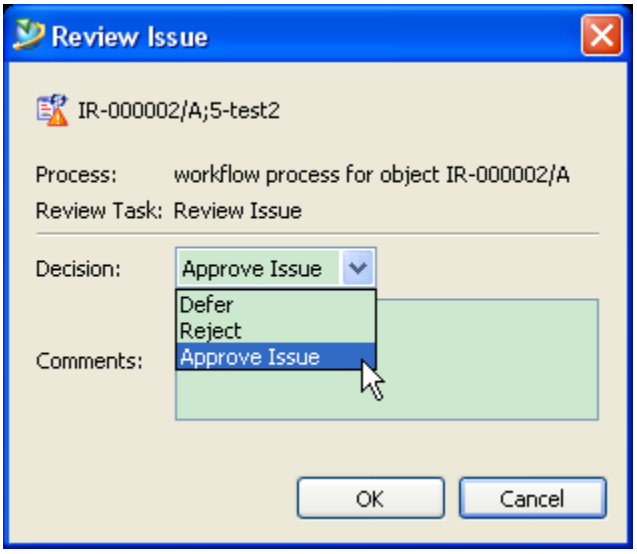
    Render a review decision that the issue should be deferred.

- **Reject**

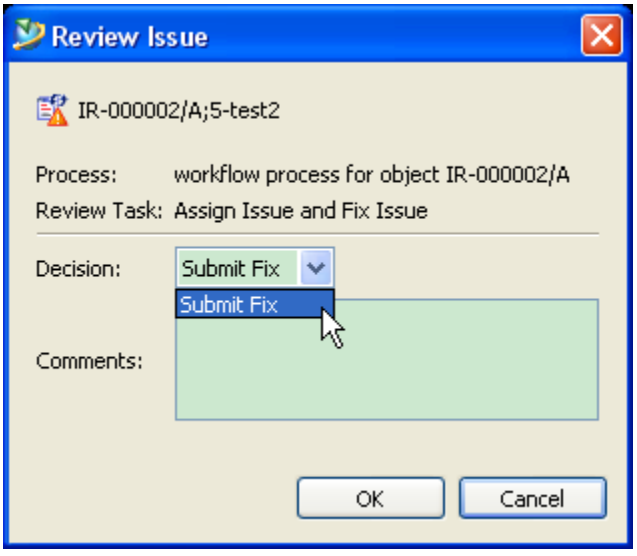
  Render a review decision that the issue should be rejected.

- **Approve Issue**

  Render a review decision that the issue is confirmed and should be assigned and fixed immediately.

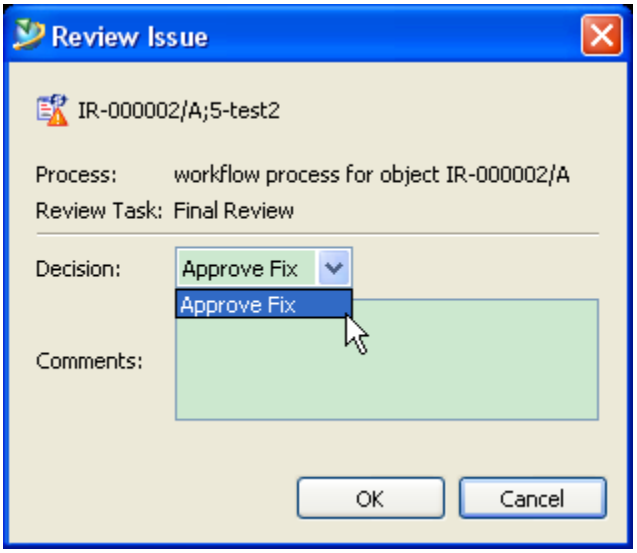


- For the **Assign Issue and Fix Issue** workflow task, the **Decision** list box of the **Review Issue** dialog box contains **Submit Fix** for issue assignee to submit fix.



- For the **Final Review** workflow task, the **Review Issue** dialog box only contains **Approve Fix** for reviewers to approve the fix to the issue. Reject is not desirable because a reject decision would hold

up the workflow process. It is expected that reviewers should work with issue team members to reach a final solution that can be approved.



Penetration request default review options

The review decision dialog box has the following defaults for the sample penetration request workflows.

- defer
- reject
- approveFix
- close
- reopen
- approveIssue
- noDecision
- approveRequest
- rejectRequest
- deleteRequest
- obsoleteRequest
- escalateRequest

- holdRequest
- approveHolecut
- rejectHolecut
- removeHolecut
- submit