TEAMCENTER

Aerospace and Defense on Active Workspace — Usage

Teamcenter 2312

SIEMENS

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1. Overview of Teamcenter Aerospace and Defense

To maintain a competitive edge, aerospace companies must launch new aerospace programs on schedule and within a fixed budget. The demand for improved aircraft performance, production flexibility, reduced operating cost, and increased dispatch reliability makes achieving this goal challenging. These requirements are further complicated by a complex global supply chain that comprises diverse suppliers and partners.

A transformation in infrastructure and security systems for new aircraft and technology is essential. It is important to foster innovation through collaborative, synchronized program management across the aerospace and defense product lifecycle and value chain.

OEMs require this synchronized program management to develop engines, aircraft and airframes, and avionics and defense electronics across commercial, general, and military aviation.

The Aerospace and Defense solution provides multiple industry-specific features that enable you to:

- Execute document-centric or part-centric development programs.
- Manage parts lists, standard parts, stock materials, and finishes for parts used in the aerospace and defense industry.
- Provide minute design details about parts and documents using standard and custom notes.
- Manage the program life cycle and its data, including program requirements, deliverable schedules, and related changes.

2. Registering a company location

What are CAGE codes?

A Commercial And Government Entity (CAGE) code is a unique identifier assigned to suppliers, and government or defense agencies by the Defense Logistics Agency (DLA), a combat support agency in the United States Department of Defense. CAGE codes for entities located outside the United States and its territories are called NATO Commercial and Government Entity (NCAGE) codes. NCAGE codes are assigned internationally as part of the NATO Codification System (NCS) and are required for all foreign entities.

A CAGE code is a standardized method of identifying a facility at a specific location. This reference enables the users of the NCS to identify the supplier for a part.

You can use the Aerospace and Defense solution to:

- Define a CAGE code for a company location.
- Update an existing CAGE code for a part.

Specify a CAGE code for a company location

1. Navigate to and open the folder where you want to include information about the company location, for example, your **Newstuff** folder.
2. Click **Add to** ⊕.
3. In the **Add** panel:
   - Select **Company Location** in the **Recent** list.

     OR

   - In **Others**, type **Company Location**, and select **Company Location** from the list.
4. Enter a unique **Name** for your company location.
5. Enter a unique **CAGE Code** for the company location.

   > Note:
   >
   > A **CAGE Code** is a position code unique to each company location.

6. Click **Add**.

3. Creating and managing standard notes

What are standard notes?

In Teamcenter Aerospace and Defense, standard notes are parametric variable values established by the Standards Engineering group to conform to the design practices of a program. Designers apply these to multiple parts and documents. Standard notes are categorized and maintained in a library. Design engineers use these notes to create part lists.

Standard notes are associated with items, such as parts, technical documents, designs, and drawings. Designers select the parametric variable values when attaching the note to an item or an item revision. Standard notes can contain text. However, they do not support the rich text format.

You can provide the parameters and applicable values using the following syntax:

text [*parameter name*: *parametric value1* *delimiter* *parametric value2 delimiter*... *parametric value n*]

Example:

```
Quench in oil from [Temperature: 400, 500, 600] C and
hold for [Time: 5, 10, 15] min
```

The default delimiter for parameters in the note text is a comma (,). However, your Teamcenter administrator can configure the delimiter to use a different character.

Qualified notes

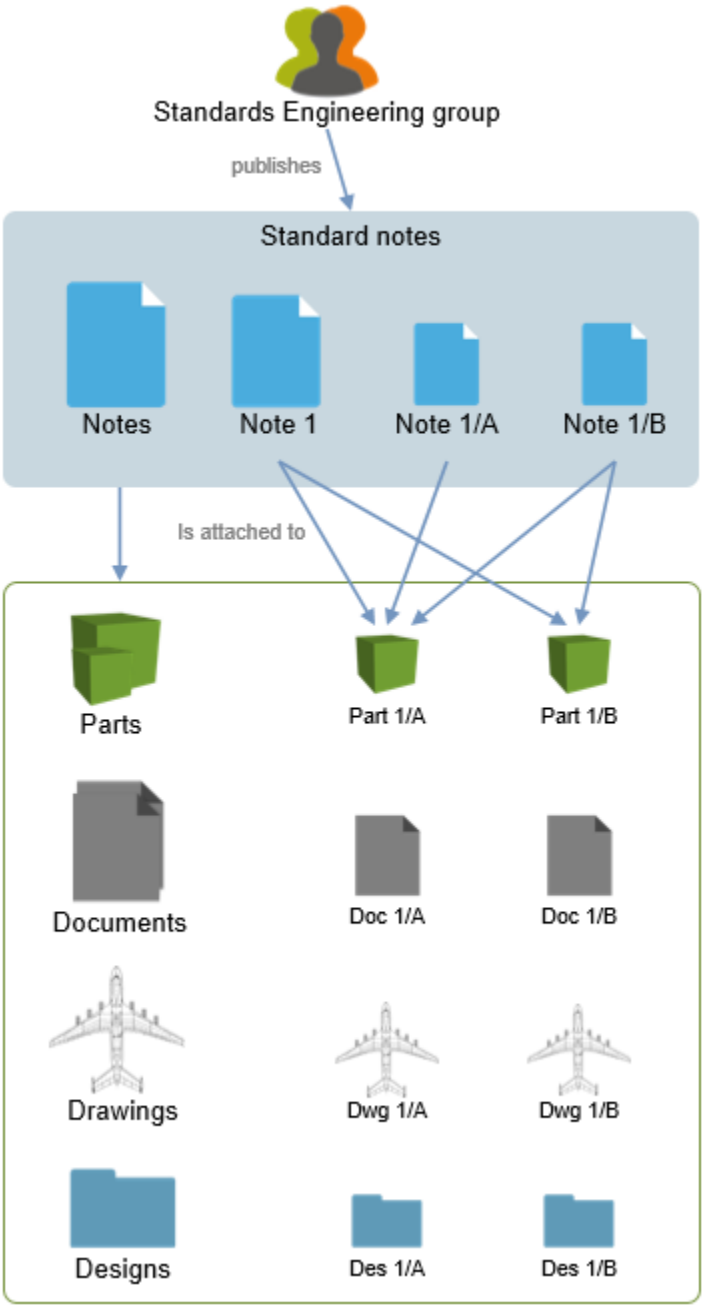
In a document-centric program, standard notes that are attached to a technical document are available to be attached to a part associated with that technical document. These standard notes are called as qualified notes.

To attach a qualified note to a part, the **Part List Note** attribute of the standard note must be populated when attaching the note to the parent technical document. Once this is done, is this *qualified* note is available for attaching to a part.

Actions performed on a standard note

Based on how your administrator has configured Teamcenter, you can perform the following actions.

Settings	Resultant action
AWC_Ads1AllowedAddNotesTypes preference is set to *Ads0StdNote, Ads0StdNoteRevision*	You can attach both the master and the revision of the standard note to an item.
AllowMultipleRevisionsofStdNotes global constant is set to *true*	You can attach multiple revisions of a standard note to an item.



Create a standard note

A standard note contains text, parameters, and applicable values for the specific parameters.

1. Navigate to and open the folder where you want to create the standard note, for example, your **Newstuff** folder.

2. Click **Add to** ⊕.

3. In the **Add** panel:

   - Select **Standard Note** in the **Recent** list.

     OR

   - In **Others**, type **Standard Note**, and select **Standard Note** from the list.

4. Enter a unique **ID**, **Name**, and **Description** for the standard note.

5. Select an appropriate **Note Category**.

6. You can associate the note with a project (also called a program). By default, the one provided with the Aerospace and Defense template is chosen as the **Owning Project**. You can chose additional **Projects** to associate the note with.

7. Click **Add**.

8. Open the newly created note. From the Primary toolbar, click **Edit** ✎ > **Start Edit**.

9. Enter the parameters and their values under **Note Text** in the following format:

   text `[`*parameter name*`:` *parametric value1* *delimiter* *parametric value2 delimiter*`...` *parametric value n*`]`.

   Example:

   ```
   Quench in oil from [Temperature: 400, 500, 600] C and
   hold for [Time: 5, 10, 15] min.
   ```

10. From the Primary toolbar, click **Edit** ✎ > **Save Edits** to save your changes, or click **Cancel Edits** to discard your changes.

    The parameters and their values are displayed in the **Note Text** property of the note.

Update a standard note

1. Navigate to and open the folder containing the standard note that you want to update.
2. Select the desired standard note and open it.
3. From the Primary toolbar, click **Edit** > **Start Edit**.
4. Type or modify the properties as necessary.
5. From the Primary toolbar, click **Edit** > **Save Edits** to save your changes, or click **Cancel Edits** to discard your changes.

To update a standard note revision in the context of a part:

1. Navigate to the appropriate folder and open the part to which the relevant standard note is attached.
2. Click the **Notes** tab.
3. From the list of all standard notes attached to the part available under **Standard Notes**, select the note that you want to update.
4. From the Primary toolbar, click **Edit** > **Applied Note Properties**.
5. In the **Applied Note Properties** panel:
   - For the different parameters, either select from the available list of values or enter your own values.

     Note:

     The **Applied Note Properties** panel shows the **Applied Note Text** content based on the value your administrator has set for the **Default_StdNoteRevRule_ToLoadNoteText** preference. To display the **Applied Note Text** content of the most recent working revision of the standard note, ensure that **Default_StdNoteRevRule_ToLoadNoteText** is set to *Latest Working*.

   - (Optional) For the **Flag Note** attribute, select or clear the check box based on whether you want to mark this note as important.
   - (Optional) For the **Parts List Note** attribute, provide a unique value for the standard note.

> Note:
>
> If you do not provide a value for **Parts List Note** now, you cannot update the value later.

6. Click **Save**.

4. Creating and classifying stock materials

What are stock materials?

In the Aerospace and Defense industry, parts are made from stock materials, such as bar stock, tubing stock, and sheet stock.

To manage these stock materials:

1. The Teamcenter administrator creates a classification hierarchy or a stock material library using the Teamcenter Classification Admin application.

2. The materials manager **creates stock materials** and **classifies** them.

3. The program administrator specifies the stock materials that are preferred to a particular program. Only such approved stock materials can be used in any program.

4. The design engineer **creates a part** and **associates the part with the stock material** and specifies the dimensional properties of the stock materials.

Create a stock material

1. (Optional) Navigate to and open the folder where you want to create the stock material, for example, your **Newstuff** folder.

2. Click **Add to** ⊕.

3. In the **Add** panel:

   - Select **Stock Material** in the **Recent** list.

     OR

   - In **Other**, type **Stock Material**, and select **Stock Material** from the list.

4. Enter a unique **Name** for the stock material.

5. Provide an appropriate **Description** for the stock material and specify the **Shelf Life Quantity** and **Shelf Life Unit**.

6. (Optional) You can associate the stock material with a project (also called a program). The default one provided with the Aerospace and Defense template is chosen as the **Owning Project**.You can chose additional **Projects** to associate the stock material with.

7. Click **Add**.

Classify a stock material

Ensure that your Teamcenter administrator has created a stock material library using the Classification Admin application before you classify a stock material.

1. Locate and open the stock material that you want to classify.

   > Note:
   >
   > You can only classify a stock material master and not its revision.

2. From the Primary tool bar, click **Manage** > **Classify**.

3. In the **Classify** panel, navigate and select the appropriate material class.

4. In the **Properties** section, enter values for the stock material attributes. For any of the *Has Cut* attributes (such as *Has Cut Length*), enter **0** if you want to ensure that the mapped attribute is not editable. Else, enter **1**.

   Scenario 1 — You wish to provide a fixed value of **15** to the *cut length* attribute. You also don't want the design engineer to be able to edit the attribute when **assigning this stock material to a part** using the **Make From** tab.

   - **Has Cut Length**: Assign the value **0** to ensure that the cut length attribute is not editable.
   - **Map attribute for cut length**: Type the name of the value as **Length** (the exact name of the custom attribute as highlighted in the graphic) to map the attribute with the custom attribute **Length**.
   - **Length**: Type the value as **15**.

   Scenario 2 — You want to configure the system such that the designer can provide a value for the cut height attribute from the **Make From** tab when **assigning this stock material to a part**.

   - **Has Cut height**: Assign the value **1** to ensure that the cut height attribute is editable.
   - **Map attribute for cut height**: It is not necessary to assign a value to the attribute.

5. Click **Classify**.

> Note:
>
> Alternatively, you can classify the stock material from the **Classification** tab.

5. Creating and assigning finishes and finish groups

What is finish management?

A finish represents a finishing process on a part. It may be used to improve appearance, adhesion, and resistance to corrosives, tarnishing, chemicals, wear and tear, to remove burrs, and so on. For example, you can apply a finishing process on a part by cleaning, priming, and painting it. You can group the finishes together to create a finish group and specify the order in which these finishes must be executed in the finish group.

The following process describes how finishes are used:

1. The finish manager creates a library of finishes and finish groups by using the Classification application.

2. The finish manager creates finishes, such as **Clean**, **Prime**, and **Paint**.

3. The finish manager creates a finish group, such as **Preserve**.

4. The finish manager adds the **Clean**, **Prime**, and **Paint** finishes to the **Preserve** finish group.

   The finish manager may also specify the order of these finishes in the finish group to indicate the order in which they must be executed.

5. The design engineer applies the finish and finish group to a part.

6. The manufacturing engineer views the finishes associated with a part and implements the finish job on the part.

Create a finish

1. (Optional) Navigate to and open the folder where you want to create the finish, for example, your **Newstuff** folder.

2. Click **Add to** ⊕.

3. In the **Add** panel:

   - Select **Finish** in the **Recent** list.

     OR

- In **Other**, type **Finish**, and select **Finish** from the list.

4. Enter a unique **Name** for the finish.

5. Provide an appropriate **Description** for the finish.

6. (Optional) You can associate the finish with a project (also called a program). The default one provided with the Aerospace and Defense template is chosen as the **Owning Project**.You can chose additional **Projects** to associate the finish with.

7. Click **Add**.

Create a finish group

1. (Optional) Navigate to and open the folder where you want to create the finish group, for example, your **Newstuff** folder.

2. Click **Add to** ⊕.

3. In the **Add** panel:

   - Select **Finish Group** in the **Recent** list.

     OR

   - In **Other**, type **Finish Group**, and select **Finish Group** from the list.

4. Enter a unique **Name** for the finish group.

5. Provide an appropriate **Description** for the finish group.

6. (Optional) Under **Finishes**, click **Add** ⊕ to add finishes to the finish group.

   > Note:
   >
   > You can use the **Palette** or **Search** function to search for the finishes that you want to add to this group. You can also copy the required finishes and then add them from the **Clipboard**.

7. (Optional) You can associate the finish group with a project (also called a program). The default one provided with the Aerospace and Defense template is chosen as the **Owning Project**. You can chose additional **Projects** to associate the finish group with.

8. Click **Add**.

Add finishes to a finish group

You can either add finishes to a finish group while **creating the finish group** or add them later to an existing group.

> Note:
>
> You cannot attach a finish group to another finish group.

To add finishes to an existing finish group:

1. Locate and open the finish group to which you want to add the finishes.
2. From the Primary toolbar, click **Edit** > **Start Edit**.
3. In the **Finishes** section, under **Finish Items**, click **Add** ⊕.
4. Use the **Palette** or **Search** functions to search for and select the finishes that you want to add to this group. You can also copy the required finishes and then add them from the **Clipboard**.

   > Note:
   >
   > You can select multiple finishes to add to the finish group.

   You can also drag the desired finishes from the left (**Home**) pane and drop it in the **Finishes** section.
5. Click **Set**.

   The selected finishes are displayed under **Finish Items**.
6. To reorder the sequence of finishes in the **Finishes** section, select the finish, and move it up or down the sequence by using the buttons.
7. From the Primary toolbar, click **Edit** > **Save Edits** to save your changes.

   The finishes are now added to the finish group.

6. Creating and managing work packages

What is a work package?

A *work package* or *package* is a collection of CAD files and documentation that an outsourcing partner uses for building, testing, or maintaining a component or subassembly of a larger product. This package serves as a revisable collection or a container of product information and can be used in a variety of contexts.

The Aerospace and Defense industry typically uses work packages as follows:

1. The designer creates a work package and specifies the work associated with the work package.

2. The designer adds objects to work packages. The objects can have a *static* or a *dynamic* relationship with the work package. Objects that have a static relationship are generally reference items and do not change over time, for example, a design document. Objects that have a dynamic relationship always show the latest revision.

3. The designer submits the work package to a workflow.

4. When the work associated with the work package is complete, it is released with a maturity status indicating the completion of work. You can use a workflow or Change Management functionalities to release the work package.

Create a work package

1. (Optional) Navigate to and open the folder where you want to create the work package, for example, your **Newstuff** folder.

2. Click **Add to** ⊕.

3. In the **Add** panel:

   - Select **Work Package** in the **Recent** list.

     OR

   - In **Other**, type **Work Package**, and select **Work Package** from the list.

4. Enter a unique **Name** for the work package.

5. (Optional) Provide an appropriate **Description** to help understand the purpose of the work package.

6. Select the **Work Package Type**:

   - **Build To**: If you want to execute the work package internally.
   - **Buy To**: If you want to send the work package to a supplier.

7. Click **Add**.

8. (Optional) Open the newly-created work package. From the Primary toolbar, click **Edit** > **Start Edits**.

9. Specify a **Work Package Security** level for the work package.

10. Specify the level of difficulty for executing the work package in **Work Package Complexity**.

11. Specify the name of the **Work Package Vendor**.

12. From the Primary toolbar, click **Edit** > **Save Edits** to save your changes.

Add or remove objects from a work package

You can add objects, such as item revisions and datasets to a work package. These objects have a *static* or a *dynamic* relationship with the work package. When you revise the work package or perform a **Save As** action to create a new package, the work package revision or the newly created work package inherits the dynamic and static objects associated with the original one.

Static relations show objects with the original revision in the work package.

Dynamic relations show objects with the latest revision in the work package. When you revise objects outside the work package, the work package always shows the latest revision.

To add objects to a work package:

1. Open the revision of the work package to which you want to add the object.

2. Click the **Work Package Contents** tab.

3. Based on whether you want a static or dynamic relationship, click **Add to** ⊕ in the **Dynamic Contents** or **Static Contents** section.

4. In the **Add** panel, use the **Pallete** or **Search** functions to find the desired object. If you do not wish to use an existing object, you can create a new one and add it to the work package.

5. Click **Add**.

To remove objects from a work package:

1. Open the revision of the work package from which you want to remove the desired object.
2. Click the **Work Package Contents** tab.
3. Select the desired object in the **Dynamic Contents** or the **Static Contents** section.
4. From the Primary tool bar, click **Cut** ✂.

7. Creating and managing parts

Elements in part management

The parts management functionality includes the following elements:

- **Parts**

  The Aerospace and Defense solution provides the following business objects to manage parts. These objects contain attributes specific only to Aerospace and Defense:

Part	Represents a product, part, or component. Parts represent the physical parts that make up the products of your enterprise and comprise assemblies, components, and standard parts. Each part can have one or more computer-aided designs (CAD) associated with it. Components represent the individual pieces of a product. They are the lowest level of the product structure. A component could be any item used in an assembly as part of the assembly's product structure.
Design	Represents the design of a component, an assembly, or a part.
Drawing	Represents a technical illustration that details one or more assemblies and parts created on a source technical document.

- **Technical documents**

  Technical documents are the written form of technical information such as part lists, drawings, procurement specifications, and schematics. A document-centric program as opposed to a part-centric program requires a source document to create a part, design, or drawing. Aerospace and Defense uses the technical document as a source document.

- **Assemblies**

  An assembly represents groupings of parts and includes other assemblies, components, and standard parts. The assembly structure can be built by using either Structure Manager or any CAD application.

- **Standard parts**

  Standard parts are the parts that are used across multiple programs and whose design is controlled by a standard specification specified by the military, an industry, or a company. You can set a standard part as a preferred part for a program. The Aerospace and Defense industry ensures that standard parts are approved and released before the engineers or designers can use them.

  In the Aerospace and Defense solution, the **Commercial part** object represents a standard part.

> Note:
>
> You can only use the **Commercial part** in an assembly if the part is designated as a *preferred* part for all the programs with which the assembly is associated.

- **Notes**

  Notes provide additional design details about the product structure and configuration, supplementing the information provided in the source document.

  Aerospace and Defense provides the following notes:

Standard notes	Contain information that is applicable globally and can be associated with multiple source documents, parts, designs, or drawings. Typically, in an industry, standard notes are created by the Standards Engineering organization and are available as an OOTB library.
Custom notes	Are defined for a specific document or part and provide specific information about that document or part.

Creating and viewing technical documents, parts, drawings, and designs

Create a technical document

A document-centric program requires a source document to create a part, design, or drawing. Aerospace and Defense uses the technical document as the source document by default.

1. Navigate to and open the folder where you want to create the technical document, for example, your **Newstuff** folder.
2. Click **Add to** ⊕.
3. In the **Add** panel:
   - Select **Technical Document** in the **Recent** list.

     OR

   - In **Others**, type **Technical Document**, and select **Technical Document** from the list.
4. Select the appropriate numbering pattern and provide an **ID**.
5. Enter a unique **Name** for the technical document.

6. Select the appropriate **Category** for the document and based on this category, select the **Technical Document Category**.

7. (Optional) You can associate the technical document with a project (also called a program). The default one provided with the Aerospace and Defense template is chosen as the **Owning Project**. You can chose additional **Projects** to associate the technical document with.

8. Click **Add**.

Create a part

If you are using a document-centric program, before creating a part, you must create a source document, if it does not already exist. A source document can be a **technical document** or any custom document type.

For information about setting custom document types as a source document, see the Teamcenter Aerospace and Defense — Deployment and Administration documentation.

If your administrator has set the **ADSAutoCreateTechDoc** global constant to *true*, and the source document does not exist, a source document is created using the ID specified for the part. Additionally, the part is associated with this source document.

You do not need a source document when creating parts in a part-centric program

1. (Optional) Navigate to and open the folder where you want to create the part, for example, your **Newstuff** folder.

2. Click **Add to** ⊕.

3. In the **Add** panel:

   - Select **Part** in the **Recent** list.

     OR

   - In **Others**, type **Part**, and select **Part** from the list.

4. Select the appropriate numbering pattern and provide an **ID** for the part.

   > Note:
   >
   > The table of use cases in this topic lists the system behavior when you provide an **ID** for the part and the value of the **ADSAutoCreateTechdoc** and **ADSAutoSelectTechdoc** constants in Teamcenter is either *true* or *false*.

5. Enter a unique **Name** for the part and provide a **Description** that specifies the purpose of the part.

6. (Optional step and applicable if you are using a document-centric program) Click **Add** ⊕ for **Source Document**.

7. In the **ADD SOURCE DOCUMENT** panel, use the **Pallete** or **Search** function to find the source document with which you want to associate this part.

> Note:
>
> Based on your organization requirement, you can select any custom type of document other than a technical document as the source document. To do this, ensure that your administrator has set the**AdsAllowAttachingDocTypesToADSObjs** global constant to specify the custom document type.

8. (Optional) You can associate the part with a project (also called a program). The default one provided with the Aerospace and Defense template is chosen as the **Owning Project**.You can choose additional **Projects** to associate the part with.

9. Click **Add**.

The following use cases apply.

> Note:
>
> You can set either or both **ADSAutoCreateTechdoc** and **ADSAutoSelectTechdoc** global constants based on the requirement of your organization.

ADSAutoCreateTechdoc and ADSAutoSelectTechdoc	**True**	**False**
Document-centric program		
Provide an **ID**	1. The technical document with which you plan to associate the part is searched for using the string before the last hyphen in the specified **ID** (which is treated as the ID of the technical document). 2. If found, the part is associated with that document. 3. If not found, a technical document with the specified ID is created along with the part, and the part is	1. In this case, you need to provide the **Source Document ID**. The technical document with which you plan to associate the part is searched for using the string in the specified **Source Document ID**. 2. If found, the part is associated with that document. 3. If not found, an error is displayed.

ADSAutoCreateTechdoc and ADSAutoSelectTechdoc	True	False
	associated with this newly created document.	
Provide a **Source Document ID**	1. The search for the technical document using the **ID** is not executed. 2. The technical document with which you plan to associate the part is searched for using **Source Document ID**. 3. If found, the part is associated with that document. 4. If not found, a technical document with the specified ID is created along with the part, and the part is associated with this newly created document.	1. The technical document with which you plan to associate the part is searched for using **Source Document ID**. 2. If found, the part is associated with that document. 3. If not found, an error is displayed.
Example	Ed, the engineer, sets **ID** to 01–1048–114 and **Source Document ID** to 01–0188–115. If a technical document with ID 01–0188 is found, a part with ID 01–0188–115 is created. If a technical document with ID 01-0188 is not found, a part and technical document with ID 01–0188–115 are created.	Ed, the engineer, sets **ID** to 01–1048–114 and **Source Document ID** to 01–0188–115. If a technical document with ID 01-0188 is found, a part with ID 01–0188–115 is created. If a technical document with ID 01-0188 is not found, an error is displayed.
Part-centric program	A source document is not required when creating parts. A part is created with the ID that you specify.	

Create a drawing

If you are using a document-centric program, before creating a drawing, you must create a source document, if it does not already exist. A source document can be a **technical document** or any custom document type.

For information about setting custom document types as a source document, see the Teamcenter Aerospace and Defense — Deployment and Administration documentation.

If your administrator has set the **ADSAutoCreateTechDoc** global constant to *true*, and the source document does not exist, a source document is created using the ID specified for the drawing. Additionally, the drawing is associated with this source document.

You do not need a source document when creating drawings in a part-centric program.

1. (Optional) Navigate to and open the folder where you want to create the drawing, for example, your **Newstuff** folder.

2. Click **Add to** ⊕.

3. In the **Add** panel:

   - Select **Drawing** in the **Recent** list.

     OR

   - In **Others**, type **Drawing**, and select **Drawing** from the list.

4. Select the appropriate numbering pattern and provide an **ID** for the drawing.

   > Note:
   >
   > The **use cases table in part creation** lists the system behavior when you provide an **ID** for the drawing and the value of the **ADSAutoCreateTechdoc** and **ADSAutoSelectTechdoc** constants in Teamcenter is either *true* or *false*.

5. Enter a unique **Name** for the drawing.

6. (Optional step and applicable if you are using a document-centric program) Click **Add** ⊕ for **Source Document**.

7. In the **ADD SOURCE DOCUMENT** panel, use the **Pallete** or **Search** function to find the source document with which you want to associate this drawing.

   > Note:
   >
   > Based on your organization requirement, you can select any custom type of document other than a technical document, as the source document. To do this, ensure that your administrator has set the**AdsAllowAttachingDocTypesToADSObjs** global constant to specify the custom document type.

8. (Optional) You can associate the drawing with a project (also called a program). The default one provided with the Aerospace and Defense template is chosen as the **Owning Project**.You can choose additional **Projects** to associate the drawing with.

9. Click **Add**.

The same **use cases as described in part creation** apply here.

Create a design

If you are using a document-centric program, before creating a design, you must create a source document, if it does not already exist. A source document can be a **technical document** or any custom document type.

For information about setting custom document types as a source document, see the Teamcenter Aerospace and Defense — Deployment and Administration documentation.

If your administrator has set the **ADSAutoCreateTechDoc** global constant to *true*, and the source document does not exist, a source document is created using the ID specified for the design. Additionally, the design is associated with this source document.

You do not need a source document when creating designs in a part-centric program.

1. (Optional) Navigate to and open the folder where you want to create the design, for example, your **Newstuff** folder.

2. Click **Add to** ⊕.

3. In the **Add** panel:

   - Select **Design** in the **Recent** list.

     OR

   - In **Others**, type **Design**, and select **Design** from the list.

4. Select the appropriate numbering pattern and provide an **ID** for the design.

   > Note:
   >
   > The **table of use cases in part creation** lists the system behavior when you provide an **ID** for the design and the value of the **ADSAutoCreateTechdoc** and **ADSAutoSelectTechdoc** constants in Teamcenter is either *true* or *false*.

5. Enter a unique **Name** for the design.

6. (Optional step and applicable if you are using a document-centric program) Click **Add** ⊕ for **Source Document**.

7. In the **ADD SOURCE DOCUMENT** panel, use the **Pallete** or **Search** function to find the source document with which you want to associate this drawing.

> Note:
>
> Based on your organization requirement, you can select any custom type of document other than a technical document, as the source document. To do this, ensure that your administrator has set the**AdsAllowAttachingDocTypesToADSObjs** global constant to specify the custom document type.

8. (Optional) You can associate the design with a project (also called a program). The default one provided with the Aerospace and Defense template is chosen as the **Owning Project**.You can choose additional **Projects** to associate the design with.

9. Click **Add**.

The same **use cases as described in part creation** apply here.

Add a CAGE code to a part or a document

1. Navigate to and open the folder containing your part or document.

2. Select the desired part or document, and open its revision.

3. From the Primary toolbar, click **Edit** ✎ > **Start Edit**.

4. Select the appropriate code from the **Current CAGE Code** list. The list contains all CAGE codes that your administrator has added to the **Fnd0DisplayLocationCodeLOV** global constant.

5. From the Primary toolbar, click **Edit** ✎ > **Save Edits** to save your changes.

Attach a standard or a qualified note to an item

You can attach a **standard note master, a standard note revision, or multiple revisions of the same standard note** either to an item, such as a technical document, part, drawing, or design, or to the revision of that item.

1. Open the revision of the technical document, part, drawing, or design to which you want to attach the standard note.

2. Click the **Notes** tab.

3. In the **Standard Notes** section, click **Add** ⊕.

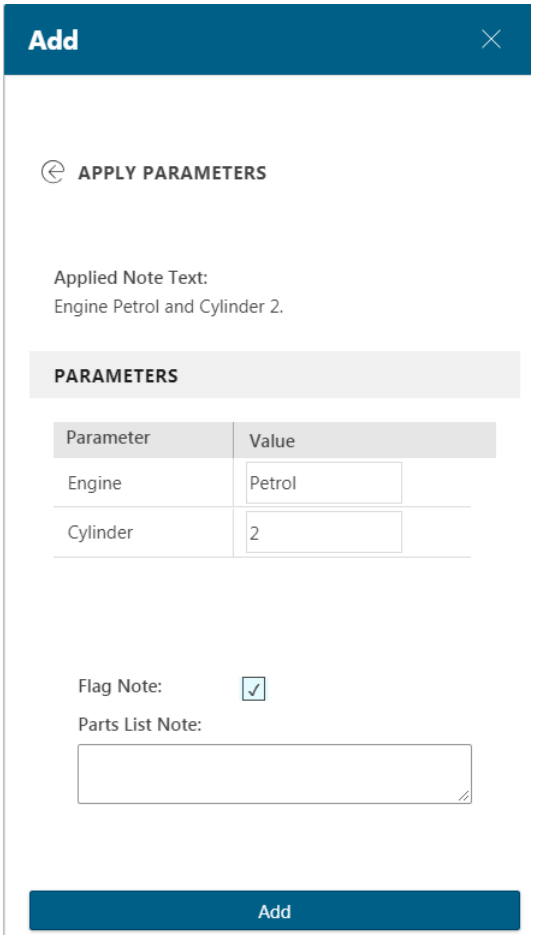
4. In the **Add** panel, use the **Pallete** or **Search** function to find the desired standard notes. You can also copy the required standard notes and click **Paste** in the **Standard Notes** section.

   > Note:
   >
   > You can only attach an existing standard note to a part.

   You can also drag the desired standard notes from the left (**Home**) pane and drop them in the **Standard Notes** section.

5. Click **Apply Parameters**.

6. Update **PARAMETERS** with the appropriate values.



7. (Optional) Select the **Flag Note** option if you want to mark the particular note as important and as requiring attention.

8. (Optional) Provide a **Parts List Note** value for the standard note. The value must be unique across all the attached standard note revisions.

   The **Flag Note** and **Parts List Note** when read together signify which note requires attention.

   For example, you attach notes 1001 through 1006 to a technical document and select **Flag Note** for notes *1002* and *1005*. When the designer opens that technical document and reviews all attached standard notes, the flagged notes are marked as requiring attention.

9. Click **Add**.

   The standard note is added to the **Standard Notes** section under the **Notes** tab of the item.

To attach a qualified note to a part

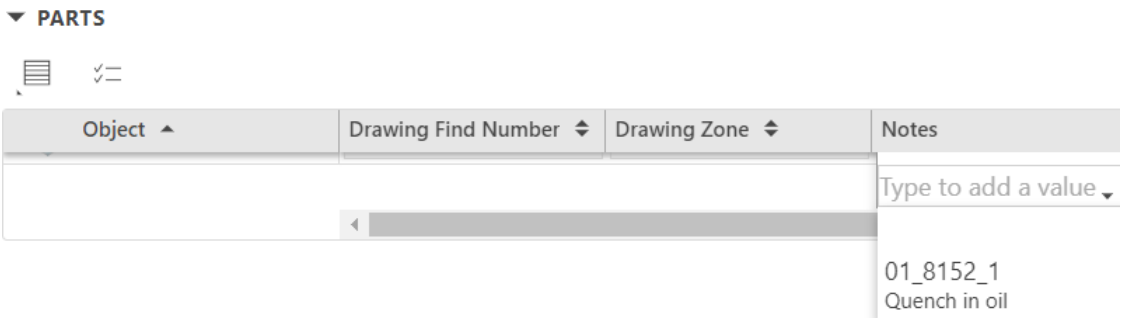
You can attach a **qualified note** to a part only in a document-centric program.

1. Open the revision of the technical document that is associated with the part to which you want to attach the qualified note.

2. In the **Attachments** tab, in the **PARTS** section, select the part to which you want to attach the qualified note. From the Primary toolbar, click **Edit** > **Start Edit**.

3. In the **Notes** column, select the applicable qualified note from the list.

   > Note:
   >
   > The qualified notes in the list are displayed as the combination of the values. It comprises the combined values of **Part List Note** and **Note Text** attributes of the standard notes that attached to the technical document.



4. From the Primary toolbar, click **Edit** > **Save Edits**.

   The qualified note is attached to the part in the context of a technical document.

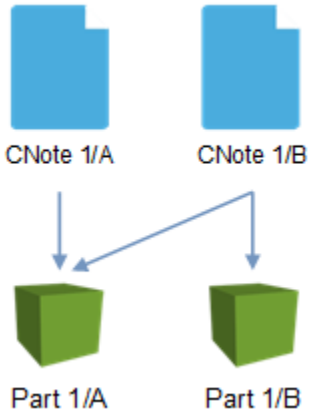
Create, assign, or unassign custom notes from a part or technical document

What are custom notes?

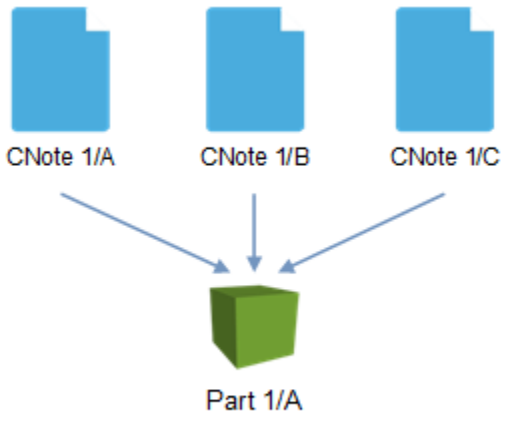
In Teamcenter Aerospace and Defense, custom notes contain data that is unique to a part or a document. Unlike standard notes, which are created and maintained by users with special privileges, you, as a designer responsible for the technical document or part, can create a custom note.

Let us understand custom notes using some examples, considering a part named **Part1** and a custom note named **CNote1**.

You can relate custom notes to a single item or its multiple revisions.

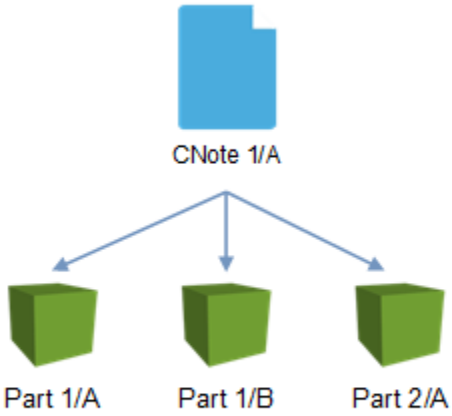


You can attach a single or multiple revisions of a custom note to a part or an item revision based on how your administrator has configured Teamcenter. For example, if your administrator has set the **Fnd0AllowMultiRevOfCustomNote** global constant to *true*, you can attach multiple revisions of a custom note to a part revision.



If Fnd0AllowMultiRevOfCustomNote = true

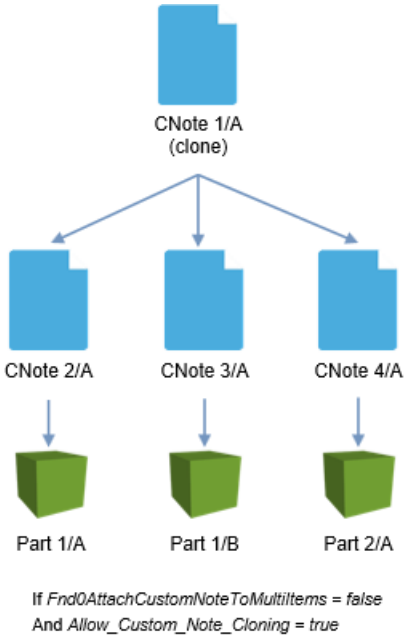
Although you cannot attach custom notes to multiple items or revisions of multiple items. However, based on how your administrator has configured Teamcenter, you can attach the same custom note to multiple parts or item revisions. For example, if your administrator has set the **Fnd0AttachCustomNoteToMultiItems** global constant to *true*, you can attach the custom note to multiple parts or item revisions.



Though custom notes contain data unique to a part or a document, you can reuse an existing custom note and attach it to another part or document or their revision.

To clone a custom note, your administrator must set the following:

Global constant or Preference	Value
Fnd0AttachCustomNoteToMultiItems	**false**
Allow_Custom_Note_Cloning	**true**



Create a custom note

1. Navigate to and open the folder where you want to create the custom note, for example, your **Newstuff** folder.

2. Click **Add to** ⊕.

3. In the **Add** panel:

   - Select **Custom Note** in the **Recent** list.

     OR

   - In **Others**, type **Custom Note**, and select **Custom Note** from the list.

4. Enter a unique **ID**, **Name**, and **Description** for the custom note.

5. (Optional) You can associate the custom note with a project (also called a program). The default one provided with the Aerospace and Defense template is chosen as the **Owning Project**.You can chose additional **Projects** to associate the custom note with.

6. Click **Add**.

7. Open the newly-created note and from the Primary toolbar, click **Edit** ✎ > **Start Edit**.

8. Enter data about the specific part or document under **Note Text**.

> Note:
>
> You can use the rich text editor to enter the custom note information.

9. From the Primary toolbar, click **Edit** > **Save Edits** to save your changes, or click **Cancel Edits** to discard your changes.

Attach a custom note to an ADS object

You can a attach a custom note revision to an object, such as a technical document, part, drawing, or design. Based on your requirement, you can also reuse or clone an existing custom note and attach it to another part or document. To clone a custom note, ensure that your administrator has set the **Fnd0AttachCustomNoteToMultiItems** global constant to *false* and the **Allow_Custom_Note_Cloning** preference to *true*.

1. Open the revision of the technical document, part, drawing, or design to which you want to attach the custom note.

2. Click the **Notes** tab.

3. In the **Custom Notes** section, click **Add** ⊕.

4. In the **Add** panel, provide the name of the custom note that you want to attach to the item.

> Note:
>
> You can use the **Palette** or **Search** functions to search for and select the custom note that you want to add to the technical document, part, drawing, or design.

> Note:
>
> You can also drag the desired custom note from the left (**Home**) pane and drop it in the **Custom Notes** section.
>
> If the required custom note does not exist, you can **create** a **New** custom note.

5. Click **Add**.

   In case you are reusing an existing note, you will be prompted whether you want to clone the note. Click **CLONE**.

   The custom note is added in the **Custom Notes** section under the **Notes** tab of the item.

> Note:
>
> In case you have attached a note that was previously attached to a part or document, the reused note is added as a new note with a different ID than the original one.

Unassign a custom note from an item

You can remove a custom note revision attached to a technical document, part, drawing, or design.

1. Open the revision of the technical document, part, drawing, or design from which you want to remove the custom note.
2. Click the **Notes** tab.
3. In the **Custom Notes** section, select the custom note that you want to remove.
4. From the Primary toolbar, click **Cut** ✂.

   The custom note is removed from the **Custom Notes** section under the **Notes** tab of the item.

Associate a stock material with a part

1. Locate and open the part with which you want to associate the stock material.
2. In the **Made From** tab, in the **Stock Materials** section, click **Add** ⊕.
3. In the **Add** panel, use the **Palette** or the **Search** functions to search for the stock material that you want to associate with this part. If required, set the appropriate **Filters**, for example, the type of stock material.

   > Note:
   >
   > Based on whether your administrator has set the **MakeFrom_Without_ProgramPreferred** preference to false, only *preferred* stock materials can be added to a part. You can specify a stock material as *preferred* using the Teamcenter rich client.

4. Enter values for **CUT LENGTH**, **CUT HEIGHT**, and other dimensional properties for the stock material.

Note:

You can enter values for the attributes only if:

- **The stock material is classified**.
- The materials manager has set the value of the mapped attributes to **1** to make them editable when **classifying the stock material**.

See the **example** in *Classify a stock material* to understand when you can or cannot enter values for the dimensional properties.

5. Provide the appropriate values for **Stock Quantity** and **Unit Of Measure**.

6. Click **Add**.

   The parameters and their values are displayed in the **Stock Materials** section of the **Made From** tab.

Assign a finish or a finish group to a part or its occurrence

You can assign a finish (or a finish group) either to a part or to its occurrence in an assembly by setting the context of that assembly. You can set the context of an assembly only if you are the owner of that assembly.

When set in the context of an assembly, the following conditions apply for displaying finishes applied to parts:

- If you set the root assembly as the context, the part to which you have assigned the finishes displays these finishes if you load the root assembly.
- If you set the root assembly as the context, the part to which you have assigned the finishes does not display these finishes if you load just the parent assembly of that part.
- If you set the parent assembly of the part as the context, the part to which you have assigned the finishes displays these finishes if you load the in–context parent assembly.

To assign a finish to a part occurrence in the context of an assembly or subassembly:

1. Locate and open the assembly containing the part occurrence.

2. Select the root assembly or subassembly to set the context to which you want to add the finishes.

3. In the work area toolbar, click **Configure**  > **Set In-Context**.

4. Expand the assembly or subassembly and select the part occurrence to which you want to assign the finish.

   Note:

   You can also select multiple parts to assign a finish.

   a. Click **New** > **Assign Finish**.

   b. In the **Assign Finish** panel, use the **Palette** or the **Search** functions to search for the finish that you want to assign to the occurrence.

      Tip:

      You can either choose a finish that you copied to the **Clipboard** earlier or choose one from your existing **Favorites**.

      You can also choose multiple finishes to attach to the occurrence. In case you want to remove any existing finishes, select them and click **Remove** ⊖.

   c. Click **Add**.

      The finish that you selected is added in the **Finishes** column of the part occurrence in the assembly.

To assign a finish to a part (not in the context of an assembly):

1. Locate and open the part to which you want to assign the finish.

2. In the **Finishes** tab, click **Add** ⊕.

3. In the **Add** panel, use the **Palette** or the **Search** function to search for the finish that you want to assign to the part.

   Note:

   You can either choose a finish that you copied to the **Clipboard** earlier or choose one from the existing **Favorites**.

4. Click **Add**.

   The finish that you selected is added under the **Finishes** tab of the part.

Attach a standard part to a part

A standard part is a part that is common across multiple programs; for example, wheels are common across different aircraft programs and can be considered as a standard part.

You can only attach preferred standard parts to a part. Use the Teamcenter rich client to specify a standard part as preferred.

1. Open the revision of the part to which you want to attach the standard part.
2. Click the **Made From** tab.
3. In the **Standard Parts** section, click **Add** ⊕.
4. In the **Add** panel, use the **Palette** or the **Search** functions to search for that you want to attach to the item.

   You can also choose a standard part that you copied to the **Clipboard** earlier or choose one from the existing **Favorites**.

   > Note:
   >
   > Based on whether your administrator has set the **MakeFrom_Without_ProgramPreferred** preference to false, only *preferred* standard parts can be added to a part. You can specify a standard part as *preferred* using the Teamcenter rich client.

5. Provide appropriate values for **Stock Quantity** and **Unit Of Measure**.
6. Click **Add**.

   The standard part is displayed in the **Standard Parts** section of the **Made From** tab.

View technical documents, parts, drawings, and designs

The **Overview** tab and the information panel of a technical document, part, drawing, or design display the out-of-the-box (OOTB), required, and general properties of the object.

View properties using the Overview tab

1. Navigate to and open the folder containing the technical document, part, drawing, or design whose properties you want to view.
2. Select the desired object, such as the technical document, and open it.
3. Click the **Overview** tab.

The **Properties** section lists the OOTB, required, and general properties of the relevant object.

In the **Attachments** tab, the **Parts** section lists the parts and designs if you have opened a technical document. The **Drawings** section lists the drawings associated with the document.

In the **Notes** tab, the **Standard Notes** and **Custom Notes** sections list the different notes associated with the technical document or part.

In the **Relations** tab, the association between the part and various documents related to it is displayed. You need to configure the **Relations** view to be able to view the association between the part and the standard and custom notes attached to it.

View properties in the information panel

1. Navigate to and open the folder containing the technical document, part, drawing, or design whose properties you want to view.

2. Select the desired object, such as the technical document, and open it.

3. Click **Information** ⓘ.

   In the **Information** panel, the **Summary** section lists the OOTB, required, and general properties of the selected object.

8. Create and manage configuration audits

What is a configuration audit?

A configuration audit helps validate if the functional and physical requirements of a product meet the requirements specified in the product configuration documentation. You can validate this by:

- Inspecting documents and products.
- Reviewing processes and procedures.

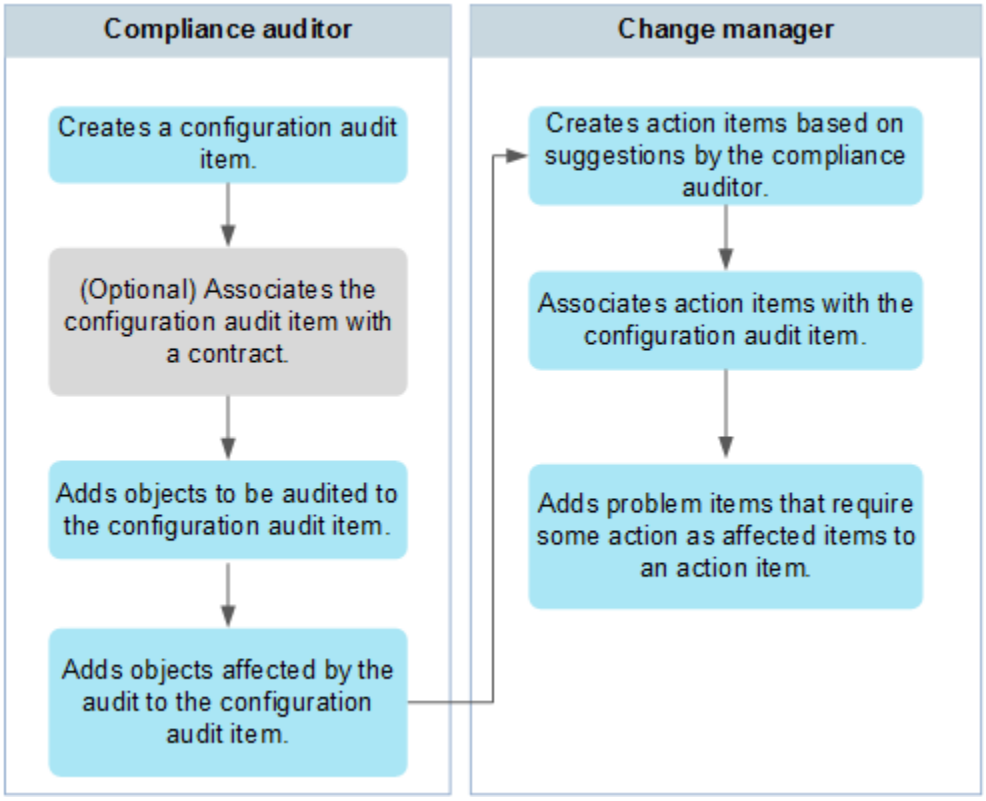
You can perform different **types of audits** to:

- Ensure that a product design provides the expected performance.
- Validate the consistency between a product and its associated configuration documentation.
- Determine that adequate processes are in place to support production.

The findings of the configuration audit results in *action items*, which represent a request for some action to be taken.

The configuration audit process

In the Aerospace and Defense industry, configuration audits consist of the following tasks.



1. A compliance auditor performs a configuration audit on a product or deliverable and creates a configuration audit item.

    a. The compliance auditor adds the objects being audited and the objects affected by the audit to the configuration audit item.

    b. Based on the findings of the audit, the compliance auditor suggests action items.

2. (Optional) If the configuration audit is conducted by a third party, the compliance auditor adds the contract with this third party to the configuration audit item.

3. The change manager creates action items and associates the action item with the configuration audit.

4. The change manager also associates the action item with the problem item.

5. The change manager associates the action item to a change request and then sends the change request using a Change Management workflow process.

Create a configuration audit

The compliance auditor performs a configuration audit on a product or deliverable and creates a configuration audit item for this purpose.

1. (Optional) Navigate to and open the folder where you want to create the configuration audit.
2. Click **Add to** ⊕.
3. In the **Add** panel:

   Select **Configuration Audit** in the **Recent** list.

   OR

   In **Other**, type **Configuration Audit**, and select **Configuration Audit** from the list.
4. In the **CONFIGURATION AUDIT** dialog box, add the following information.

Field name	Value
Synopsis	Provide the name of the configuration audit.
Description	Specify, in brief, the purpose of the configuration audit.
Audit Type	Select the type for the configuration audit from the following: • **PCA**: Physical Configuration Audit • **FCA**: Functional Configuration Audit • **CDR**: Critical Design Review • **PDR**: Preliminary Design Review • **TRR**: Test Readiness Review
Process Date	Provide the date on which you want to conduct the audit.
Comments	Specify any other information about the configuration audit.

5. Click **Add**.

Associate a configuration audit with a contract

You can optionally associate a configuration audit with a contract

1. Locate and open the configuration audit with which you want to associate the contract.
2. In the **Overview** tab, in the **CONTRACT** section, click **Add to** ⊕.
3. In the **Add** panel, use the **Pallete** or **Search** function to find the desired contract.

4. Select the contract and click **Add**.

   The contract is added to the configuration audit in the **CONTRACT** section.

Associate related objects with a configuration audit

You must add the objects to be audited to a configuration audit:

1. Locate and open the configuration audit to which you want to add the action item.
2. In the **AUDIT ITEMS** section, click **Add to** ⊕:
3. In the **Add** panel, use the **Pallete** or **Search** function to find the desired object to audit.

   If such an object does not exist, you can use the **New** function to create a new item to audit.
4. Select the desired item and click **Add**.

   The item is added to the configuration audit in the **AUDIT ITEMS** section.

Once the configuration audit is complete, you must add the items that are impacted by the audit to the **IMPACTED ITEMS** section of the configuration audit.

Create an action item for a configuration audit

The findings of the configuration audit results in *action items*, which represent a request for some action to be taken.

1. (Optional) Navigate to and open the folder where you want to create the action item.
2. From the Primary tool bar, click **New** ✳ > **Create Change**.
3. In the **Create Change** panel, select **Action Item**.
4. In the **Action Item** dialog box, add the following information.

Field name	Value
Synopsis	Provide the name of the action item.
Description	Specify, in brief, the purpose of the action item.
Audit Type	Select the type for the configuration audit from the following: • **Audit**: Physical Configuration Audit

Field name	Value
	• **CCR**: Configuration Change Request • **RFA**: Request For Action • **RFI**: Request For Information
Comments	Specify any other information about the action item.
Impacts	Specifies the name of the impacted item.
Office Primary Responsible	Specifies the person or office responsible for the action item.
Zones	Specifies the product zones affected by the action item.

5. Click **Add**.

Add action items to a configuration audit

Based on the findings of the configuration audit, you may need to request that some action be taken. This request results in the creation of an *action item*. You must associate this *action item* with the configuration audit.

> Caution:
>
> Ensure that the object being audited is added to the **AUDITS ITEM** section of the configuration audit item. If you do not do this, the action items will not be created and added to the **ACTION ITEMS** section of the configuration audit item.

1. Locate and open the configuration audit to which you want to add the action item.
2. In the **Action Items** tab, in the **ACTION ITEMS** section, click **Add** ⊕.
3. In the **Add** panel, use the **New**, **Pallete**, or the **Search** function to create or find the desired action item.
4. Select the action item and click **Add**.

   The action item is added to the configuration audit in the **ACTION ITEMS** section.

After analyzing the findings of the configuration audit, you must add the problem items (parts, design specifications, and so on) that need a change action as *affected items* to the action item.

1. Search for and copy the problem item that you want to add to the action item.

2. Locate and open the action item to which you want to add this problem item.

3. In the **Affected Items** tab, in the **PROBLEM ITEMS** section, paste the problem item.

You can now associate the action item with a change request and proceed using the Change Management workflow process.

9. Managing changes

What is change management?

Change management helps you track changes to a product throughout its lifecycle. You propose a change to a product and then manage the entire cycle of review, approval, and implementation of the change.

Change management enables your organization to ensure the quality of every change made to a product by providing mechanisms for problem identification, change authorization, coordination and planning, cost and benefit analysis, and record keeping.

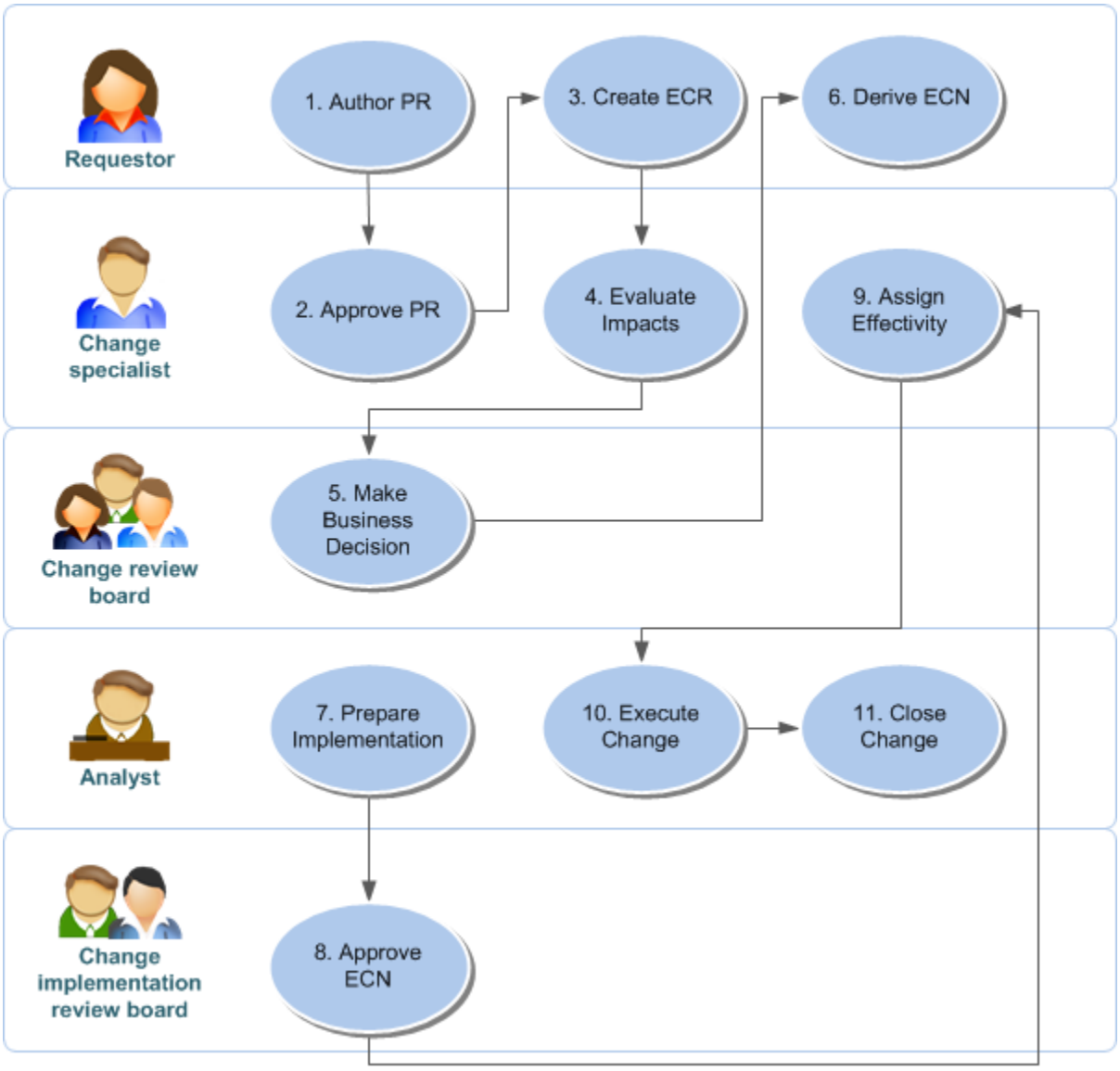
The Aerospace and Defense solution uses the OOTB Change Management on Active Workspace — Usage functionality to help you manage change using the following change objects:

Change object	Description
Problem report (PR)	Initiates a change. A PR captures information about a problem or an enhancement. It includes the information necessary to confirm and reproduce any problems observed or to document the specifics of a request for an enhancement. Additional attributes document the perceived severity of the problem and set the priority for addressing the issue relative to other PRs. The processing of a PR sometimes leads to the creation of an engineering change request (ECR). Creating a PR is an optional step in the change process. Depending on the conventions at your site, you may first identify a problem or enhancement with an ECR, not a PR. A PR may be addressed by one or more ECRs.
Change request (CR)	Initiates a proposal that recommends a change and captures business decisions associated with the change. A CR proposes a solution to the problem with cost estimates and benefits of making the change. The actual solution (for example, a new item revision) is implemented in the change notice (CN). It is typically a response to a PR unless the PR stage is skipped. A single CR may logically group and address issues identified in multiple PRs. A CR may be addressed by one or more CNs.
Change notice (CN)	Implements a change.

Change object	Description
	Provides a detailed work plan to resolve one or more ECRs or a portion of one CR. A CN identifies all items and documents affected by a change and authorizes the actions that address a change.
Deviation request (DR)	Seeks consent to deviate from a solution in production to resolve a set of problems to initiate improvements.

The change management process

You can manage your changes in the way that works best for your company's processes. The following graphic shows the different roles and their tasks that you can adopt to implement the change management process.



1. Author a problem report (PR).

   A requestor creates a problem report to identify a problem or an enhancement, provide a preliminary assessment, and show the steps necessary to reproduce the problem.

2. Approve a problem report.

   A change specialist assigns a priority to the problem report and assigns it to an analyst for technical review. The specialist or analyst recommends a disposition, such as **Approved**.

3. Create an engineering change request (ECR).

   A requestor (who may be the analyst associated with the problem report) creates an ECR to address the problem report.

At this stage, the analyst develops a solution or several alternative solutions. The analyst does this by creating markups on documents, Word documents, presentations, and so on. No decision has been made at this stage about whether to proceed or what new items or item revisions may be required.

Sometimes the PR may propose a solution if the problem is simple to fix. However, the solution would still be formally documented in the ECR. Typically, though, the requestor is unlikely to be in a position to know what the solution should be and may likely have no idea at all.

> Note:
>
> The change request can address more than one PR.

4. Evaluate the impact.

   The change specialist assigns the ECR to an analyst. The analyst identifies the items impacted by the change, prepares supporting documentation, and prepares a high-level proposal for the actions required to implement the change.

5. Make a business decision.

   A change specialist submits the ECR to a change review board who decides if the change will be made. The change review board can approve the change request, reject it, or require additional investigation. If this is a fast track change, the review board is the owner of the change and the process moves to the execute change step.

   At this stage, a decision is made about whether to revise or create new items, according to the form, fit and function and interoperability.

6. Derive an engineering change notice (ECN).

   The requestor (who may be the analyst of the ECR) either derives a new change notice to address the approved change request or associates the ECR with an existing ECN. The ECN addresses the implementation details of the change. It may address multiple change requests. The requestor can delegate responsibility for elaborating the details of the implementation plan.

   > Note:
   >
   > An ECN is always derived to implement a solution, even for an ECN that went through a fast track process. However, the workflow for the fast track ECN is very short, with a minimal number of steps. It is necessary to create an ECN so the analyst can add solution items, which is not possible in the ECR, whose purpose is only to define a proposed solution.

7. Prepare an implementation plan.

   The analyst develops a detailed plan to address the set of approved ECRs addressed by the ECN.

At this stage the agreed solution is implemented in the new/revised items.

8. Approve the ECN.

   For a standard track process, the change implementation board reviews and approves the plan to address the change. For a fast track process, the approval is informal and may just require the change specialist managing the change.

9. Assign an effectivity.

   A change specialist can assign effectivities to the ECN. The effectivities specify the timing of when the change takes effect.

10. Execute the change.

    The analyst implements and tracks the detailed plan for addressing the change. A change specialist tracks the implementation progress at a high level.

11. Close the change.

    The analyst closes the associated levels of the implementation plan. When all the actions associated with each level of the implementation plan are complete, a change specialist closes the change.

Create a problem report

Use **Problem Report** to submit a problem report and send it for resolution. You can include an image, a report, or a reference document to aid in the investigation of the problem.

You can also create different types of changes to manage the problem.

1. On the home page, click the **REPORT PROBLEM** tile.

2. From the tools and information toolbar, click **Create Change**  .

3. In the **Create Change** panel, select **Problem Report**.

4. Enter the properties for the problem report.

Property	What to enter
PR Number and **Revision**	Enter a problem report ID and revision number.

Property	What to enter
	If you do not provide an ID and revision number, Active Workspace provides them automatically.
Synopsis	Provide a short description of the problem. The synopsis is visible anywhere a list of change objects is found. Therefore, use the synopsis to help you organize your changes.
Description	Provide a more complete description of the problem. The description is only visible when looking at more detailed information about the change. Therefore, use the description to help others understand and execute the change.

5. (Optional) To add supporting objects and reference documents to the problem report, to the right of **Attachments**, click ⊕.

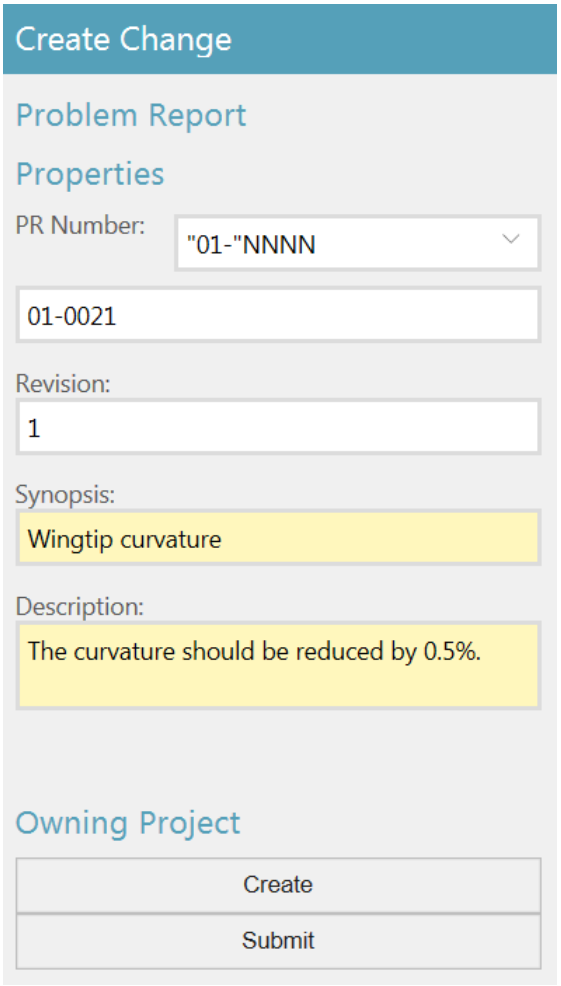
6. Do one of the following:

   - If you want to continue editing later, click **Create**.

     The change is created and displayed in edit mode.

     You can send it for resolution later.

   - If you want to send it for resolution now, click **Submit**.



The change is sent through the default workflow for resolution. Participants to review and approve the change may be automatically assigned depending on how your organization's change process is configured.

Create a change request

> Tip:
>
> If you only want to create a problem report, use a **Problem Report**.

1. On the home page, click the **CHANGES** tile.
2. On the tools and information toolbar, click **Create Change** .
3. In the **Create Change** panel, select the type of change you want to create, in this case, a **Change Request**.
4. Enter the properties for the change request.

Property	What to enter
ECR Number and **Revision**	Enter a change request ID and revision number. If you do not provide an ID and revision number, Active Workspace provides them automatically.
Synopsis	Provide a short description of the problem. The synopsis is visible anywhere a list of change objects is found. Therefore, use the synopsis to help you organize your changes.
Description	Provide a more complete description of the problem. The description is only visible when looking at more detailed information about the change. Therefore, use the description to help others understand and execute the change.
Change Type	Select the acronym that designates the type of change documentation used for a program.
Change Class	Select the government or company change classification code.
Change Category	Select the specific category that the change belongs to.
Change Item Affected	Select (or clear) the check box to indicate whether the change item affects other configuration items.
In Production	Select (or clear) the check box to indicate whether the change item is in production.
Is Primary Change	Select (or clear) the check box to indicate whether the change item is a primary change.
Retrofit Required	Select (or clear) the check box to indicate if the change item requires a retrofit.
Warranty Affected	Select (or clear) the check box to indicate whether the change item affects the warranty.

5. (Optional) Click **Attachments** to add supporting objects and reference documents to the request.

6. Do one of the following:

   - To continue editing later, click **Create**.

     The change is created and displayed in edit mode.

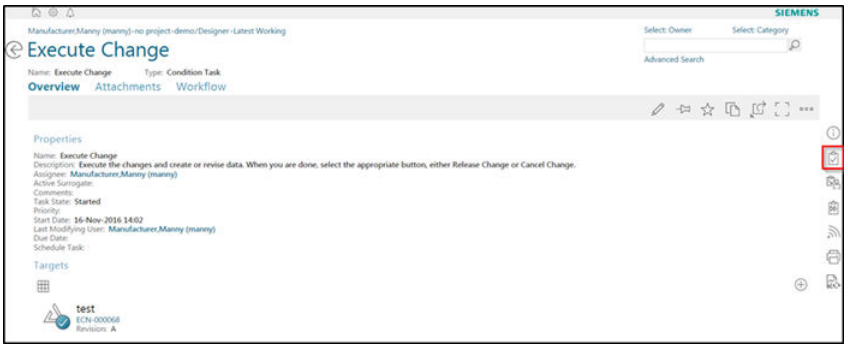
     You can send it for resolution later.

   - To send it for resolution immediately, click **Submit**.

The change is sent through the default workflow for resolution. Participants to review and approve the change may be automatically assigned depending on how your organization's change process is configured.

Tip:

If a task is assigned to you as part of the change workflow, **Perform Task** appears on the tools and information toolbar. You can perform the task the same way that you do from your inbox.



Create a change notice

1. On the home page, click the **CHANGES** tile.
2. On the tools and information toolbar, click **Create Change**.
3. In the **Create Change** panel, select the type of change you want to create, in this case, a **Change Notice**.
4. Enter the properties for the change request.

Property	What to enter
ECR Number and **Revision**	Enter a change notice ID and revision number. If you do not provide an ID and revision number, Active Workspace provides them automatically.
Synopsis	Provide a short description of the problem. The synopsis is visible anywhere a list of change objects is found. Therefore, use the synopsis to help you organize your changes.
Description	Provide a more complete description of the problem. The description is only visible when looking at more detailed information about the change. Therefore, use the description to help others understand and execute the change.

Property	What to enter
Change Type	Select the acronym that designates the type of change documentation used for a program.
Change Class	Select the government or company change classification code.
Paper Change	Select (or clear) the check box to indicate whether the change notice is an unincorporated change.

5. (Optional) Click **Attachments** to add supporting objects and reference documents to the change notice.

6. Do one of the following:

   - To continue editing later, click **Create**.

     The change is created and displayed in edit mode.

     You can send it for resolution later.

   - To send it for resolution immediately, click **Submit**.

     The change is sent through the default workflow for resolution. Participants to review and approve the change may be automatically assigned depending on how your organization's change process is configured.

Create a deviation request

1. On the home page, click the **CHANGES** tile.

2. On the tools and information toolbar, click **Create Change** .

3. In the **Create Change** panel, select the type of change you want to create, in this case, a **Deviation Request**.

4. Enter the properties for the change request.

Property	What to enter
ECR Number and **Revision**	Enter a change notice ID and revision number. If you do not provide an ID and revision number, Active Workspace provides them automatically.
Synopsis	Provide a short description of the problem.

Property	What to enter
	The synopsis is visible anywhere a list of change objects is found. Therefore, use the synopsis to help you organize your changes.
Description	Provide a more complete description of the problem. The description is only visible when looking at more detailed information about the change. Therefore, use the description to help others understand and execute the change.
Deviation Type	Select the type of change documentation used for a program.
Change Item Affected	Select (or clear) the check box to indicate whether the change item affects other configuration items.
Warranty Affected	Select (or clear) the check box to indicate whether the change item affects the warranty.

5. (Optional) Click **Attachments** to add supporting objects and reference documents to the deviation request.

6. Do one of the following:

   - To continue editing later, click **Create**.

     The change is created and displayed in edit mode.

     You can send it for resolution later.

   - To send it for resolution immediately, click **Submit**.

     The change is sent through the default workflow for resolution. Participants to review and approve the change may be automatically assigned depending on how your organization's change process is configured.

Deriving a change

Once you have identified a problem and investigated it, you can derive another change object from it to manage the next phase of the change process.

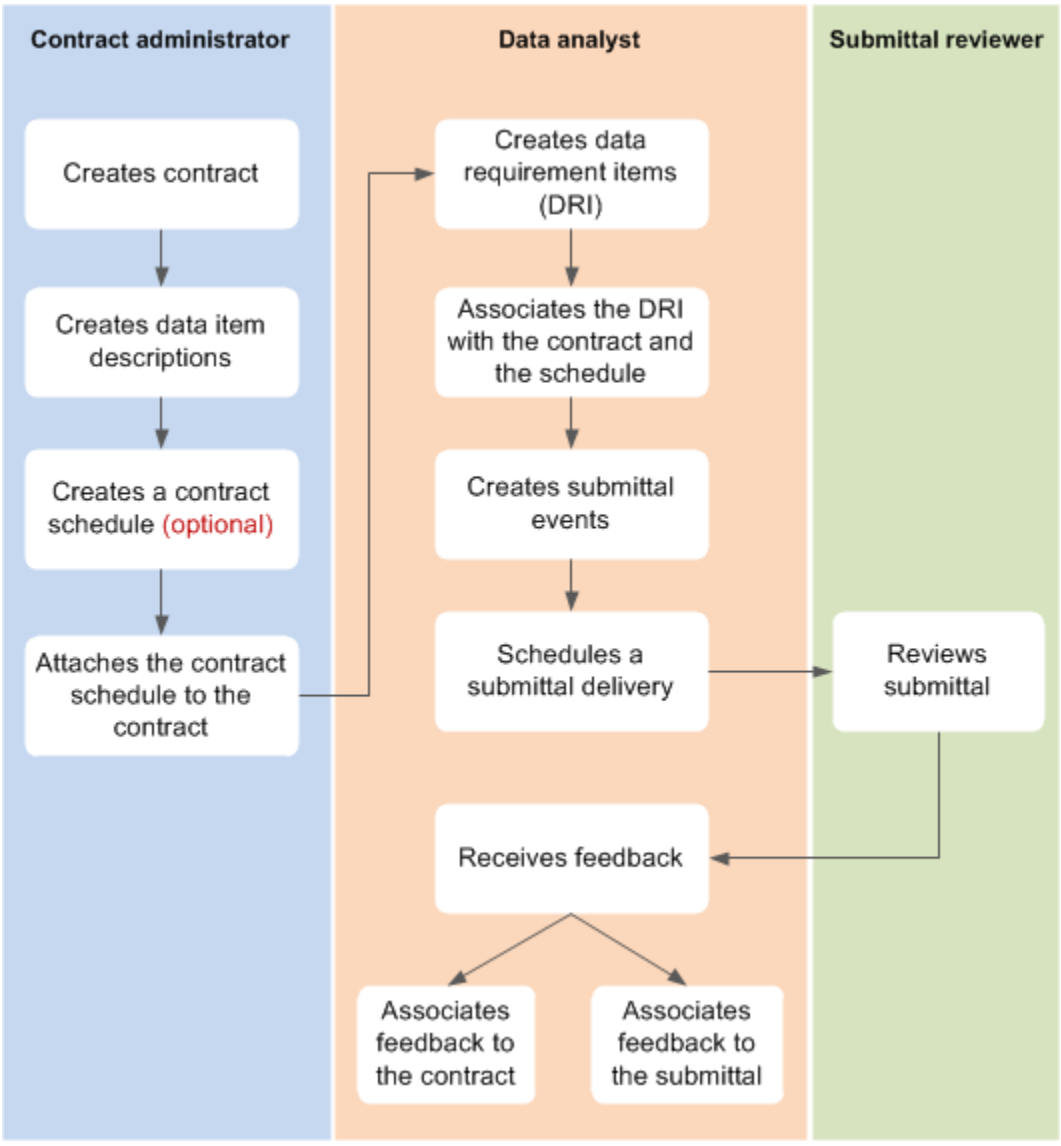
- Derive a change request from a problem report to determine a solution for the problem.
- Derive a change notice from a change request to implement the solution to the problem.
- Derive a deviation request from a problem report to allow a deviation.

Active Workspace Change Management describes how to derive a change.

10. Contract data management

Overview of contract data management

In the Aerospace and Defense industry, a contract is a structured procurement document that lists the milestones and schedule dates. As part of the contracting process, the contractor must submit data deliverables such as reports and documents. Contract data management helps the contractor manage the creation, review, and delivery of these deliverables.



A typical process for managing contract data is as follows:

1. Create a contract.

A *contract* in Active Workspace represents the contract you are working on. It has schedules that contain tasks and milestones.

2. Create data item descriptions.

   A data item description (DID) is a standard form that specifies which data deliverables will be supplied as part of the contract. Contractors submit these forms as part of the response to a contract proposal.

   A contract administrator creates DIDs in Active Workspace to keep track of the data deliverables that are promised to the customer.

3. Create a contract schedule.

   A schedule defines when a document or submittal is due for submission. You can create a new schedule or use existing schedule templates in Active Workspace.

4. Attach the contract schedule to the contract.

5. Create data requirement items.

   A data requirement item (DRI) represents a single data deliverable that the contractor must supply to the customer. For each DRI, the contractor must submit submittals at predefined intervals. The DRI lists how the different events, namely, the schedule tasks align with the schedule.

6. Associate the DRI with the contract and the schedule.

7. Create submittal events.

   Submittal events specify when and which submittals must be sent to the customer. Submittal events are defined in the DRI.

8. Schedule a submittal delivery.

   After creating submittal events, evoke an automatic generation of the submittals.

9. Review the submittals.

   The data analyst reviews the submittal tasks to ensure that they are aligned with the submittal events.

10. Once the review workflow is triggered, data deliverables are sent to customers for review and approval.

    Data deliverables are the submittals that are sent to the customer in the physical or electronic form.

11. Receive and store feedback.

    The data analyst can store the feedback received from the customer in a correspondence item. Associate this feedback with the contract and the submittal, as required.

Elements of contract data management

As a contractor, you come across the following terms in Teamcenter for managing the creation, review, and delivery of various data deliverables.

Term	Description
Data item description (DID)	Is a standard form submitted as part of the response to a contract proposal between a contractor and the United States Department of Defense. The DID defines the data content, format, and intended use of the data to comply with the standardization objectives of the Department of Defense.
Contract	Is a structured procurement document between a customer and a supplier. In Teamcenter Aerospace and Defense, this element contains schedules that in turn contain tasks and milestones.
Contract schedule	Defines when a submittal is due to be submitted.
Data requirement item (DRI)	Represents a single data deliverable that the contractor must supply to the customer.
Submittal event	Specifies when and which submittals must be sent to the customer. Submittal events are defined in the DRI.
Submittal	Refers to the data deliverable (such as a report or document) that is sent to the customer in physical or electronic form.
Correspondence	Is the feedback that you receive from the customer. You can associate this feedback to the contract and the submittal.

Creating and managing data required for a contract

Create a data item description

1. (Optional) Navigate to and open the folder where you want to create the data item description (DID), for example, your **Newstuff** folder.

2. Click **Add** ⊕.

3. In the **Add** panel:

   - Select **Data Item Description** in the **Recent** list.

OR

- In **Other**, type **Data Item Description**, and select **Data Item Description** from the list.

4. Enter a unique **Name** for the DID.
5. (Optional) Provide an appropriate **Description** to explain the purpose of the DID.
6. Provide the appropriate **DID Type** for classifying the document item.
7. (Optional) Provide the appropriate **Program Phases** for the DID.
8. Click **Add**.

All the data requirement items (DRIs) associated with this DID are listed in the **DRIs** tab. However, you cannot add any DRIs to this DID in this section. To add a DRI to this DID, **open the particular DRI revision and then associate it with this DID**.

Create a contract

A contract is signed between a customer and a supplier. Each contract defines a set of required deliverables, such as a purchase order or other procurement documentation.

The contract administrator creates a contract object, defines a master schedule with milestones, and associates this schedule with the contract.

1. (Optional) Navigate to and open the folder where you want to create the contract, for example, your **Newstuff** folder.
2. Click **Add** ⊕.
3. In the **Add** panel:
   - Select **Contract** in the **Recent** list.

     OR

   - In **Other**, type **Contract**, and select **Contract** from the list.
4. Enter a unique **Name** for the contract.
5. (Optional) Provide an appropriate **Description** to help understand the purpose of the contract.
6. Select the appropriate **Contract Category** from the list:

- **CONTRACT**: Any contract documents used for procurement.
- **TWO**: A temporary work order.
- **PO**: A purchase order.

7. Click **Add**.
8. (Optional) Open the newly-created contract and click **Start Edit** ✎.
9. Provide the values for other attributes, such as the contract cost, and so on.

   You can either fill these properties now or as the contract progresses. For example, you may not want to provide the cost before negotiating on it.

10. Click **Save Edits** 🖫 to save your changes.

Creating and associating schedules and tasks

Create a schedule for your contract

When planning the schedule for the contract, ensure to verify the off days, holidays, and working hours in a day as set in your work calendar because these impact the timelines of the schedule. See *Setting up work calendars* in the Teamcenter documentation to know about user and schedule calendars and the preferences that your administrator must set for configuring dates and times.

Based on the requirements of your organization, you can either use an existing schedule template to create a schedule, or create a new schedule template.

After you create the schedule, add tasks to it, and then **associate the schedule with your contract**.

Associate a schedule with a contract

As a contract administrator, you must associate a schedule with the contract to provide a timeline for different submissions.

1. Open the revision of the contract with which you want to associate the schedule.
2. Click the **Schedule** tab.
3. In the **Contract Event Schedule** section, click **Add** ⊕.
4. In the **Add** panel, in the **New** tab, select the appropriate **Schedule Template** from the list.

You can also use the **Palette** tab to choose a template from the **Clipboard**, **Favorites**, or **Recent** section.

> Note:
>
> If you are unable to find your template in the **Schedule Template** list, it is because the schedule may not have been saved as a template earlier.

Based on the template that you choose, a new schedule is created. The template name is appended with the contract ID and revision.

5. Click **Add**.

The schedule is attached to the contract and is available in the **Schedule** tab.

> Note:
>
> - You can attach only one schedule to a contract at a time.
> - You can attach a schedule that is different from the one attached only if no submittals have been generated for any of the data requirement items attached to the contract.

To replace an existing schedule:

1. Perform steps 1 through 4 of **associating a schedule with the contract**.
2. Click **Add**.

   A message asking you whether to replace the earlier schedule is displayed.
3. Click **Replace** to replace the earlier schedule or **Cancel** to retain the existing schedule.

   If any pre - existing submittals are not found, the schedule you select is attached to the contract. Else, the existing schedule is retained and a message providing the reason for not enabling the selection of the new schedule is displayed.

Creating deliverables

Create a data requirement item

A data requirement item (DRI) is a container for the data deliverables described in the contract and the contract schedule.

You can create a DRI either in the context of a contract or as a standalone instance.

1. Search for and select the revision of the contract under which you want to create the DRI.
2. Click the **DRIs** tab.
3. Click **Add to** ⊕.
4. In the **Add** panel:
   - Select **Data Requirement Item** in the **Recent** list.

     OR

   - In **Other**, type **Data Requirement Item**, and select **Data Requirement Item** from the list.
5. Enter a unique **Name** for the DRI.
6. (Optional) Provide an appropriate **Description** to help understand the type of deliverable you are creating.
7. Click **Add**.

   The DRI is created and attached to the contract and is available in the **DRI** tab of the contract.

Once created, you can associate this DRI to the revision of a data item description (DID) which is submitted as part of the response to a contract proposal. To do this:

1. Open the revision of the newly created DRI.
2. Click the **DIDs** tab.
3. Click **Add to** ⊕.
4. In the **Add** panel, use the **Pallete** or **Search** function to find the desired DID. You can also create a **New** DID, if required.
5. Click **Add**.

Create a submittal event for a data requirement item

Submittal events specify the timeline to submit submittals or deliverables for a contract. To enable submitting documents on specified dates, as a data analyst, you must define submittal events for a data requirement item (DRI). The data (that you enter) from these submittal events is used to generate a submittal delivery schedule.

Create a submittal event

1. Open the revision of the DRI for which you want to create the submittal event.

2. In the **Overview** tab, in the **EVENT LIST** section, click **Add** ⊕.

3. In the **Add** panel, choose the **Schedule Task** that you want to associate with the DRI.

   Here, **Schedule Task** lists the tasks that are part of the schedule associated with the contract with which this DRI is associated.

4. Provide the **Start Date** and the **End Date** for the submittal event.

5. Provide an **Offset** from the start or end date to calculate the submittal due date.

   In some cases, even when the submittal is ready, you may need some extra time for submitting the deliverables. The offset in such cases is the time added to the deliverable submission date or the submittal due date. A submittal due date is the date for the first submittal delivery.

6. Choose the appropriate **Relative To** to specify whether the starting point should be the start date or the end date of the event.

   For example, to keep the starting point the same as the start date, set **Relative To** to *Start Date*.

7. Based on your requirement, select an appropriate **Recurrence** to specify the frequency of the submittal event, for example, once a month or once in a quarter.

8. Provide the **Recurrence End Date** to specify the last date for the recurrence of the submittal event schedule.

   The recurrence end date is the closing date for generating submittals.

9. Click **Add**.

   The submittal event is displayed in the **Overview** tab > **EVENT LIST** section. The **Submittal Start Date** is displayed only in one of two cases: either after either you **generate a new submittal delivery schedule** or **after you generate an existing one again**.

Schedule Task	Event Name	Start Date	End Date	Offset	Relative To	Recurrence	Recurrence End Date	Submittal Start Date
SubmitReports	SubmitReports	02-Jul-2019 08:00	28-Dec-2019 17:00	2	Start Date	Monthly	31-Dec-2019 17:00	

Set scheduling properties for a submittal event

After creating a submittal event, you must set the scheduling properties required to generate a submittal delivery schedule.

1. Open the revision of the DRI for which you created the submittal event.

2. From the Primary toolbar, click **Edit** > **Start Edit** to set the scheduling properties.

3. In the **Overview** tab, in the **Scheduling Properties** section:

   - Select the appropriate **Align Task** from the list to align the submittal due date with either the start or the end date of the submittal event.

     Align task specifies whether the submittal delivery starts on the date calculated using the submittal event attributes or whether it ends on the calculated date.

   - Select an appropriate **Process Template** for the event to decide which workflow template to use to specify what needs to be done with the submittals once they are generated.

   - Select the **Submittal Type** from the list to specify the object type of the deliverable.

   - Provide the approximate **Task Duration Hours** to specify the duration of the submittal task in hours.

4. From the primary toolbar, click **Edit** > **Save Edits** to save your changes.

Generate a submittal delivery schedule

As a data analyst, after you **create a submittal event** for a data requirement item (DRI) revision, you must generate a submittal delivery schedule. This schedule contains the timeline for the various submittal tasks.

1. Search for and open the revision of the DRI for which you want to generate the submittal delivery schedule.

   > Note:
   >
   > Ensure that the **Event List** section lists schedule tasks (also called active tasks).
   >
   > If the **Event List** section does not list your schedule tasks, verify whether you attached the contract schedule to the contract.

2. Click the **Submittal Schedule** tab.

3. From the Primary tool bar, click **New** > **Generate Submittal Delivery Schedule**.

   The submittal delivery schedule calculates the dates and times of the various submittal tasks based on the off days, holidays, and working hours in a day as set in the work calendar. See *Setting up work calendars* in the Teamcenter documentation to learn more about user and schedule calendars and the preferences that your administrator must set for configuring dates and times.

The various submittal tasks for the generated schedule are displayed in the **Submittals** section in the **Submittal Schedule** tab.

Rescheduling in contract data management

Occasionally the contract between two parties gets extended. In such cases, the different milestones within the schedule associated with the contract are also impacted.

Additionally, in some cases, either the event properties for generating submittals (for example, recurrence) or the alignment properties for a data requirement item (DRI) are changed. For example, instead of a half-yearly report, a monthly report is required or the task hours are reduced from eight to six hours.

In all such cases, you must reschedule to reflect the updates to the schedule tasks, milestones, or parameters.

Consider the following use cases:

A task within the schedule attached to a contract is updated

- The DRI containing a submittal event (also called as an event) based on the task being updated is impacted.
- In case the duration of the task is shortened, the submittal event that occurred in the past is retained as is. Also, if an event has not yet started and the end date of the event falls outside the end date of the task, the new submittals are generated based on the frequency or recurrence.
- For a work-in-progress submittal event, the submittals or deliverables not yet started are impacted and generated again. The submittals that are already in a workflow or are work-in-progress continue on to complete the workflow and are not changed.

The event list properties associated with a submittal event under a DRI are updated

- The completed and the work-in-progress submittals are deleted.
- A complete new set of submittals is generated based the updated properties.

The alignment (scheduling) properties associated with a DRI are updated

- All generated submittals are ignored and a completely new set of submittals is generated based the updated properties.
- *Alignment* properties take precedence over *event list* properties.

Reschedule your submittal events

Based on changes in the contract, the data analyst may need to reschedule the submittal events.

1. Open the revision of the contract for which you need to reschedule the submittal events.
2. Click the **DRIs for Reschedule** tab.

   The **Impacted DRIs** section lists only the data requirement items (DRIs) that are impacted because of the change in the schedule.

   The **Impacted events** section lists only those events that are impacted DRIs because of the change in the schedule.
3. In the **Impacted DRIs** section, select the DRIs that you want to reschedule.
4. From the Primary tool bar, click **Manage** > **Reschedule Data Requirement Items**.

   Based on the rescheduled dates, the events from the impacted DRIs are updated. Additionally, the submittals are updated and listed in the **Submittal** section of the impacted DRIs.

Creating and associating feedback with schedules or contracts

Create a correspondence

A data analyst creates a correspondence for a submittal and attaches the feedback documents to the correspondence object.

1. (Optional) Navigate to and open the folder where you want to create the correspondence.
2. Click **Add to** ⊕.
3. In the **Add** panel:
   - Select **Correspondence** in the **Recent** list.

     OR
   - In **Other**, type **Correspondence** and select **Correspondence** from the list.
4. In the **Add** panel, in the **Correspondence** section, enter a unique **Name** for the correspondence.
5. (Optional) Provide an appropriate **Description** to distinguish the purpose of the correspondence.

6. Select the appropriate **Category** from the list to specify the category of the correspondence, for example, a memo.

7. Click **Add**.

You can also **create a correspondence from a submittal**.

Associate a correspondence revision with a submittal revision

1. Open the revision of the submittal to which you want to attach the correspondence.

2. Click the **Correspondence** tab.

3. Click **Add to** ⊕.

4. In the **Add** panel, perform either action:

   - Click **New** to **create and attach a correspondence** to the submittal.

   - Select a correspondence from the **Clipboard**, **Favorites**, or **Recent** section in the **Palette** tab, and click **Add**.

   - **Search** for the desired correspondence, select it, and click **Add**.

Associate a contract with a correspondence revision

You can add a single contract or add multiple contracts to a correspondence revision. You cannot add a correspondence to a contract revision or to a data requirement item.

1. Open the revision of the correspondence to which you want to attach the contract.

2. Click the **Contracts** tab.

3. Click **Add to** ⊕.

4. In the **Add** panel, perform either action:

   - In the **New** tab, create a contract to attach it to the correspondence.

   - Select a contract from the **Clipboard**, **Favorites**, or **Recent** section in the **Palette** tab, and click **Add**.

   - Use the **Search** tab for finding the desired contract, select it, and click **Add**.