# ENGINEERING WORKSPACE

## OBJECTIVE

**Engineering Workspace** allows designers to pursue complex design activities in an isolated environment while controlling when changes are propagated between team members and domains.

### OVERVIEW

It is sometimes necessary for designers to modify and iterate on design content without impacting the current "master" definition of the design, and without being impacted by on-going modifications from other design teams. **Engineering Workspace** addresses this need by enabling designers to work freely in an isolated virtual environment and only deliver changes to the master enterprise design definition when the work is complete.

**Engineering Workspace** mainly serves teams working on complex assemblies, which may need multiple design iterations before reaching the desired result and without affecting the progress of the rest of the organization. **Engineering Workspace** content is isolated from the reference content and therefore modifications can be made without impact. Conversely, modifications can be made on reference content without any impact to engineering workspace content.

With **Engineering Workspace**, each designer decides when to take into account modifications performed by others and decides when to deliver his or her modifications. Full collaboration on a single product reference is maintained across the different design teams in the company, as they proceed with their work.

### HIGHLIGHTS

Key features and capabilities of **Engineering Workspace** include:

### Creating an **Engineering Workspace**

Designers need to be able to modify and iterate on their content without impacting other's content and without being impacted by on-going content modifications by others. An engineering workspace enables designers to work freely in an isolated virtual environment, and then deliver local changes to the reference when the work is completed.

### Managing **Engineering Workspace** Content

Content to be used within an engineering workspace can be defined by a filter which remains associative to the engineering workspace. Modifications to the filter update the content in the Engineering workspace. Design relations, configuration information, lifecycle states, and revisions are taken into account between the engineering workspace and reference product.

Content in an engineering workspace can have additional access rights applied. 3D indexing supports the engineering workspace content for the user to benefit from 3Dnavigation and volume filtering within the engineering workspace.

### Images

An image is a copy of the reference data used within an engineering workspace. The samedata can be used within multiple engineering workspaces. An image is not a duplicate (object obtained by using duplicate command). In particular, an image has the same name as the original object (which is not the case of a duplicate that has a name different from the original object). From any object, it is possible to retrieve all images of the object and then compare the different images with each other or with the reference to choose the best design. The user is then able to identify geometric or product structure differences.

## Preventing Content Modification Conflicts

**Engineering Workspace** content cannot be modified until it has been explicitly reserved by the designer in order to prevent concurrent edits of the same content. As soon as the content is reserved inside an engineering workspace, it cannot be modified in another engineering workspace or in the reference.

## Bi-directional Synchronization

A user has the ability to refresh the engineering workspace with the changes in the master or publish his or her changes from the engineering workspace to the master. Synchronization enables a user to inherit changes made to the reference product since the engineering workspace was created, or since the last synchronization. All or a subset of modified content can be synchronized depending on designer needs. Conversely, designers can deliver all or some of their local changes to the reference product when work is completed. Design relations, configuration information, lifecycle states and revisions are taken into account between the engineering workspace and reference product.

## Engineering Workspace BI

With the Business Intelligence Essentials tool, users can easily identify data meeting the following conditions in a visual color coded display:

- Content belonging to the connected engineering workspace and reserved
- Content belonging to the connected engineering workspace and not reserved
- Content belonging to a engineering workspace different from the connected one
- Content belonging to the reference

## Tailoring the Engineering Workspace

**Engineering Workspace** can be tailored to meet specific requirements:

- Control what type of data can be used within an engineering workspace.
- Limit creation, synchronization and delivery commands to specific users or roles to ensure proper security.
- Expand the definition of an engineering workspace with additional attributes.

**Key Benefits:**
- Turn innovative ideas to reality by giving designers the freedom to try the design ideas in an isolated environment with the flexibility to decide when to share with others.
- Seamlessly maintain lifecycle states, revisions and iterations, relational design and configuration information, between reference and engineering workspaces.

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