

Seven Steps to Building the Ideal Lifecycle

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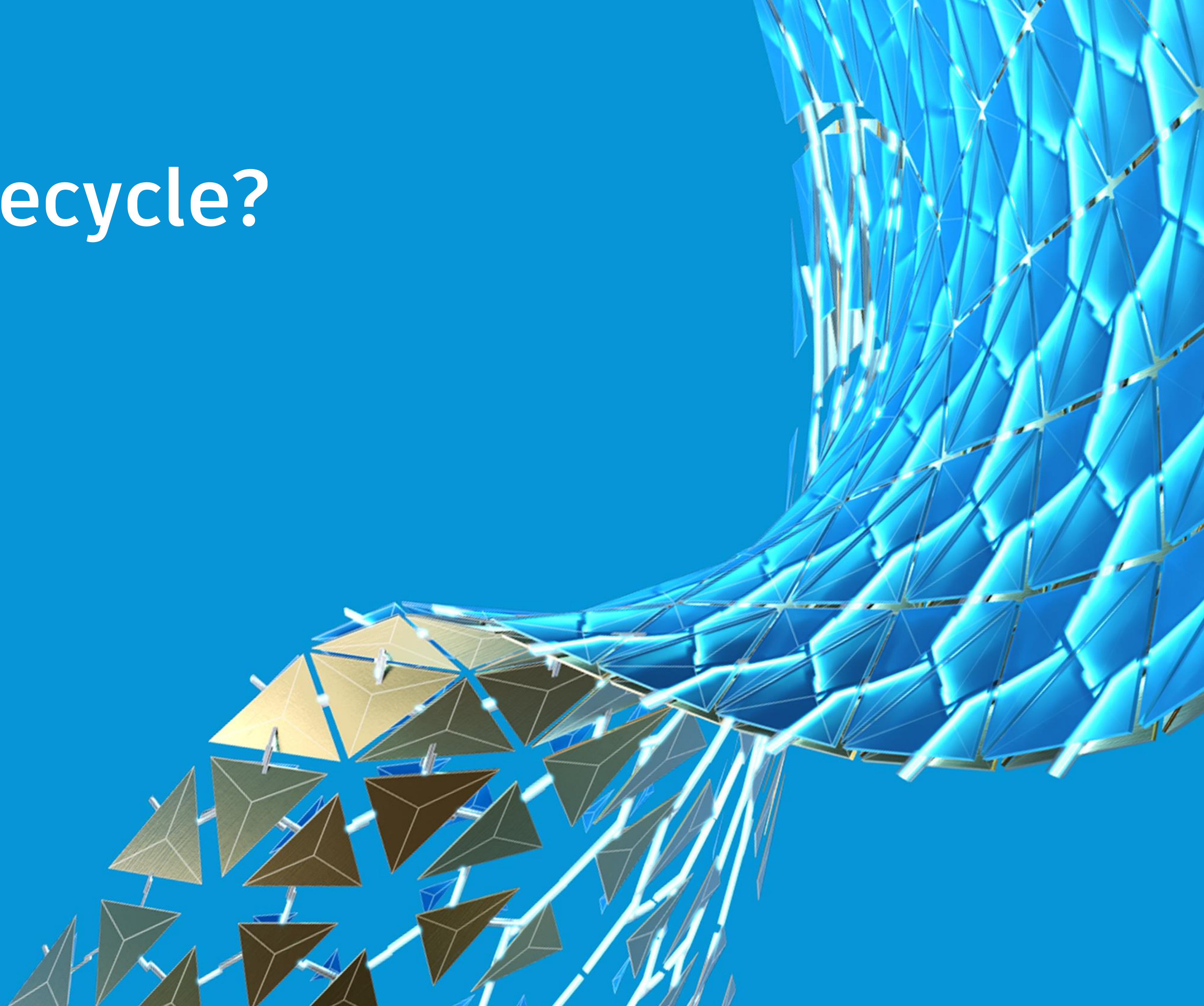


About the speaker

Mike Thomas

I have been using AutoCAD since r13, I cut my solid modeling teeth on Mechanical Desktop, and have been using Inventor since inception. Data Management has always been a big part of my professional life, for the most part with Autodesk Vault.

What is a lifecycle?



A lifecycle definition is an engine that can be configured to automatically assign security, behaviors, and properties to Vault objects based on where the object is in the life of the design process.

- Vault Help

What's in the Vault?

- **Autodesk Vault Basic** only provides Version control, no tools to manage the change
- **Vault Workgroup** and **Vault Professional** provide the tools for managing file and item change



A 7-Step Program

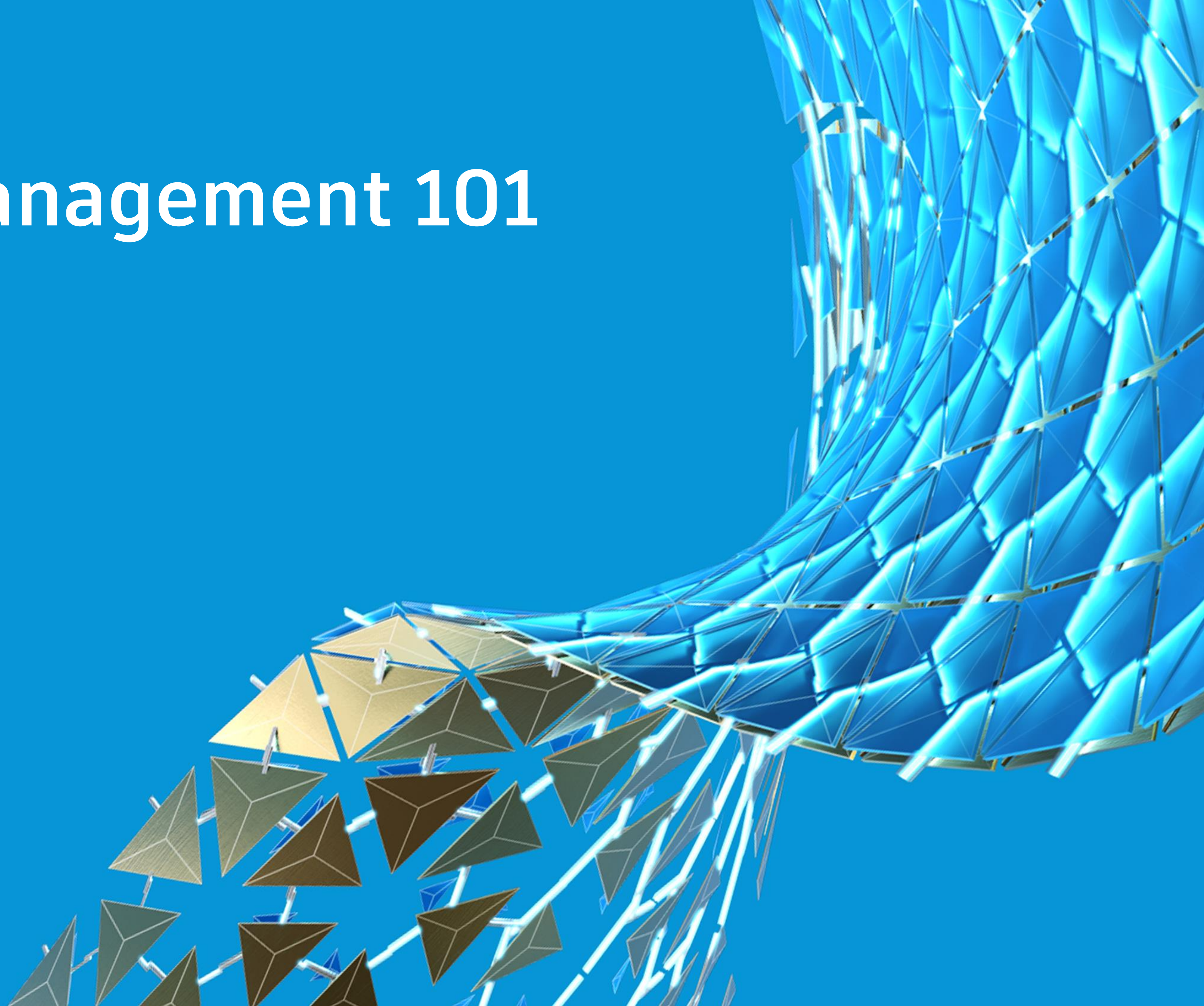


7-Steps

1. Build Your Properties
2. Add a Category
3. Define the Rules
4. Define the Revision Schemes
5. Build the Transitions
6. Make it Secure
7. Track the Change



Property Management 101



Property Administration

WHAT ARE PROPERTIES?

Meta Data is a set of data that describes and gives information about other data (Oxford Dictionary). **Properties** are meta data describing your data in Vault.

VAULT PROPERTIES

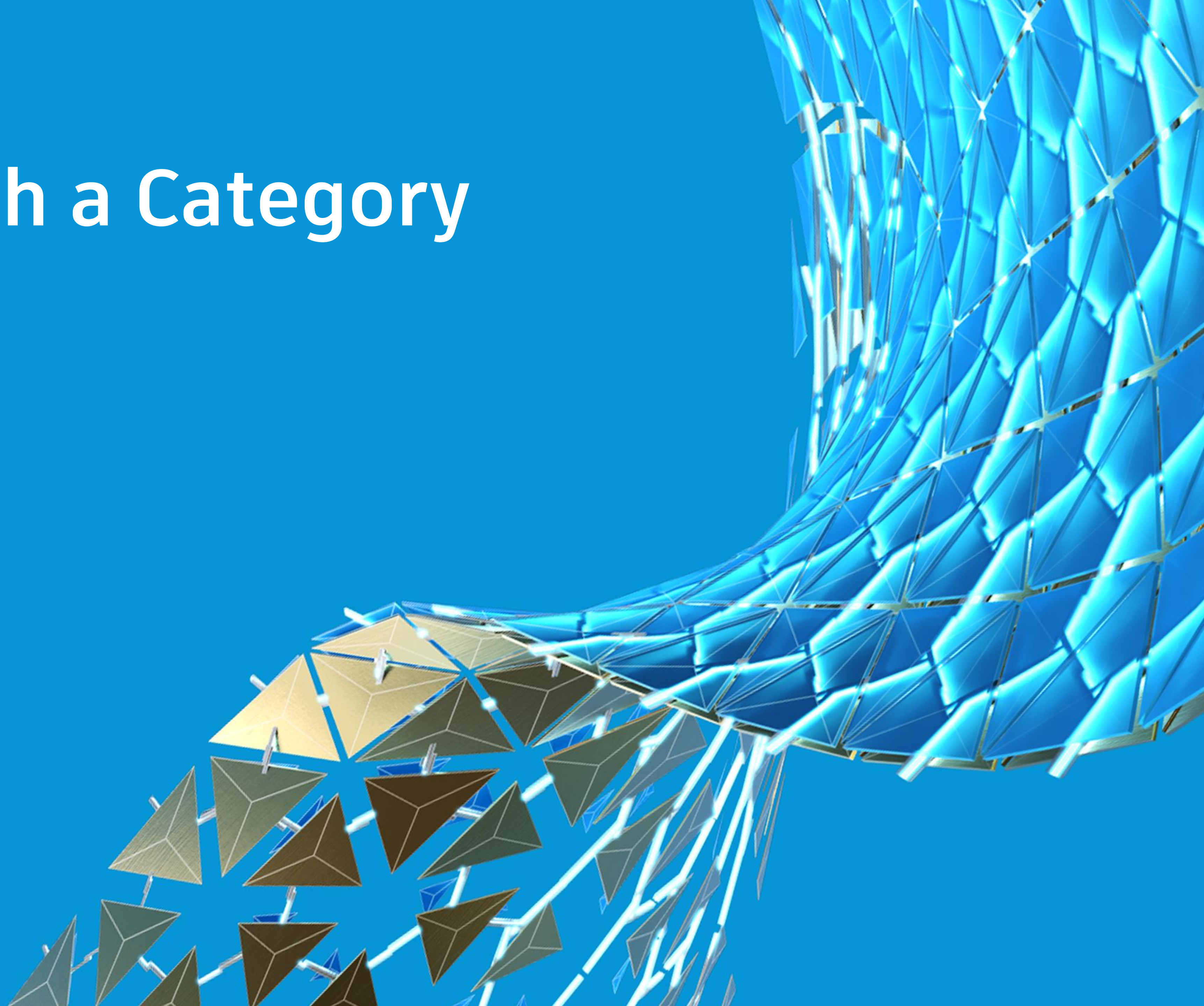
Two types:

- **System-defined** – preset derived from Vault (aka out-of-the-box)
- **User-defined (UDP)** – you build properties

ASSOCIATIONS

Properties are available for files, folders, items (Vault Pro), and custom objects (Vault Pro). You **associate** with **entity classes** the property is available. **Mapping** determines where the property gets its information from.

It starts with a Category

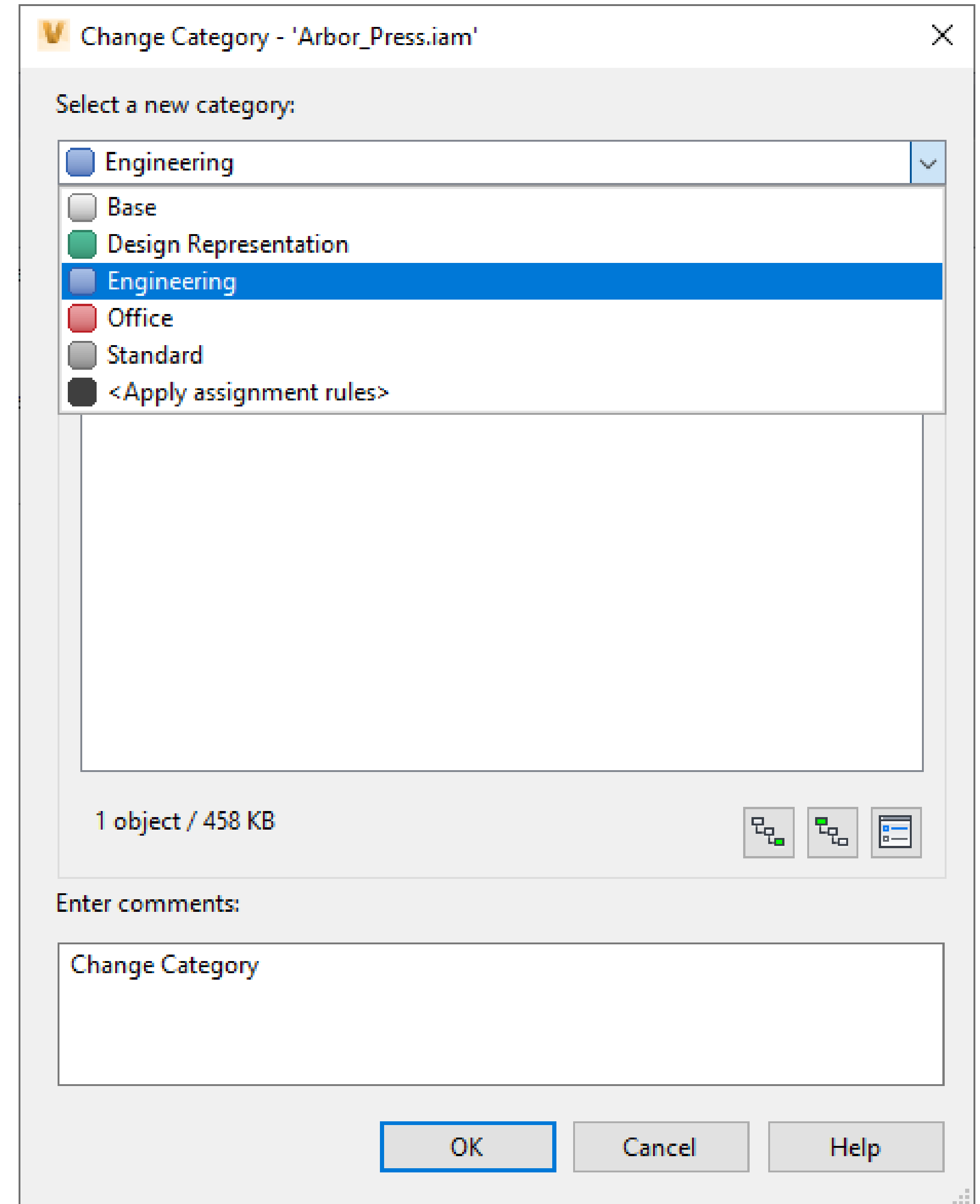


Categories

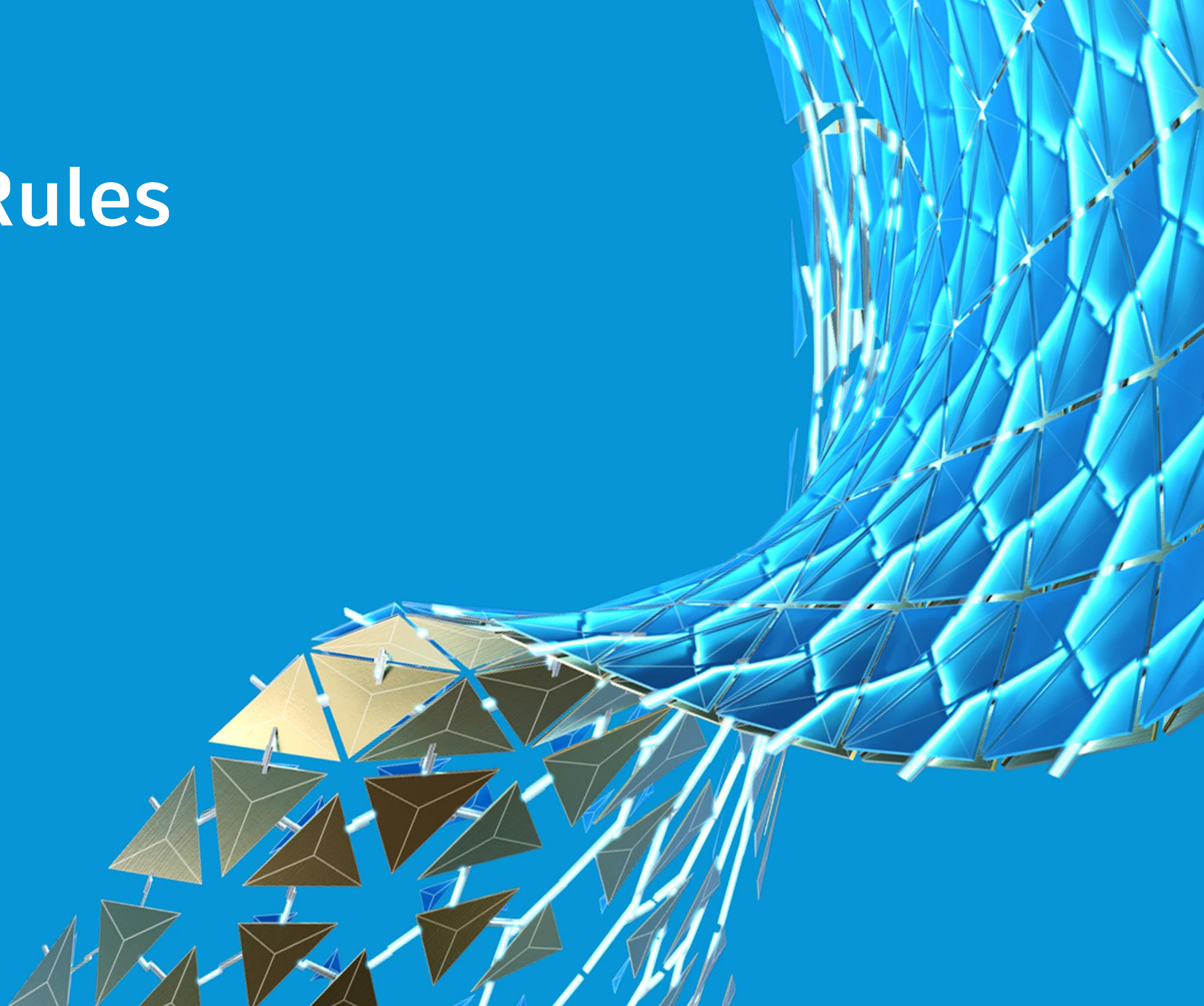
Categories are *labels* that provide a way to group objects logically. Each *category* assigns a defined set of behaviors and rules to objects

So What?

- They group objects
- They assign User-defined Properties
- They assign the lifecycle definitions (and available states)
- They make available the desired revisions schemes



Define the Rules



Assignment Rules

Use **Rules** to define conditions where objects automatically assign to a category based on the object's properties

Assignment Rules

Item Rules

Rule

DRILLS

Part

Virtual

Assembly

Purchased

Standard

General

☐

☒

☐

☐

☒

☐

☐

☒

Category Assignment

DRILLS

Part

Part

Assembly

Purchased

Purchased

General

Rule Condition Builder

Property:

Condition:

Value:

Add

Replace

Remove

Rule Criteria:

Description (Item,CO) contains DRILL

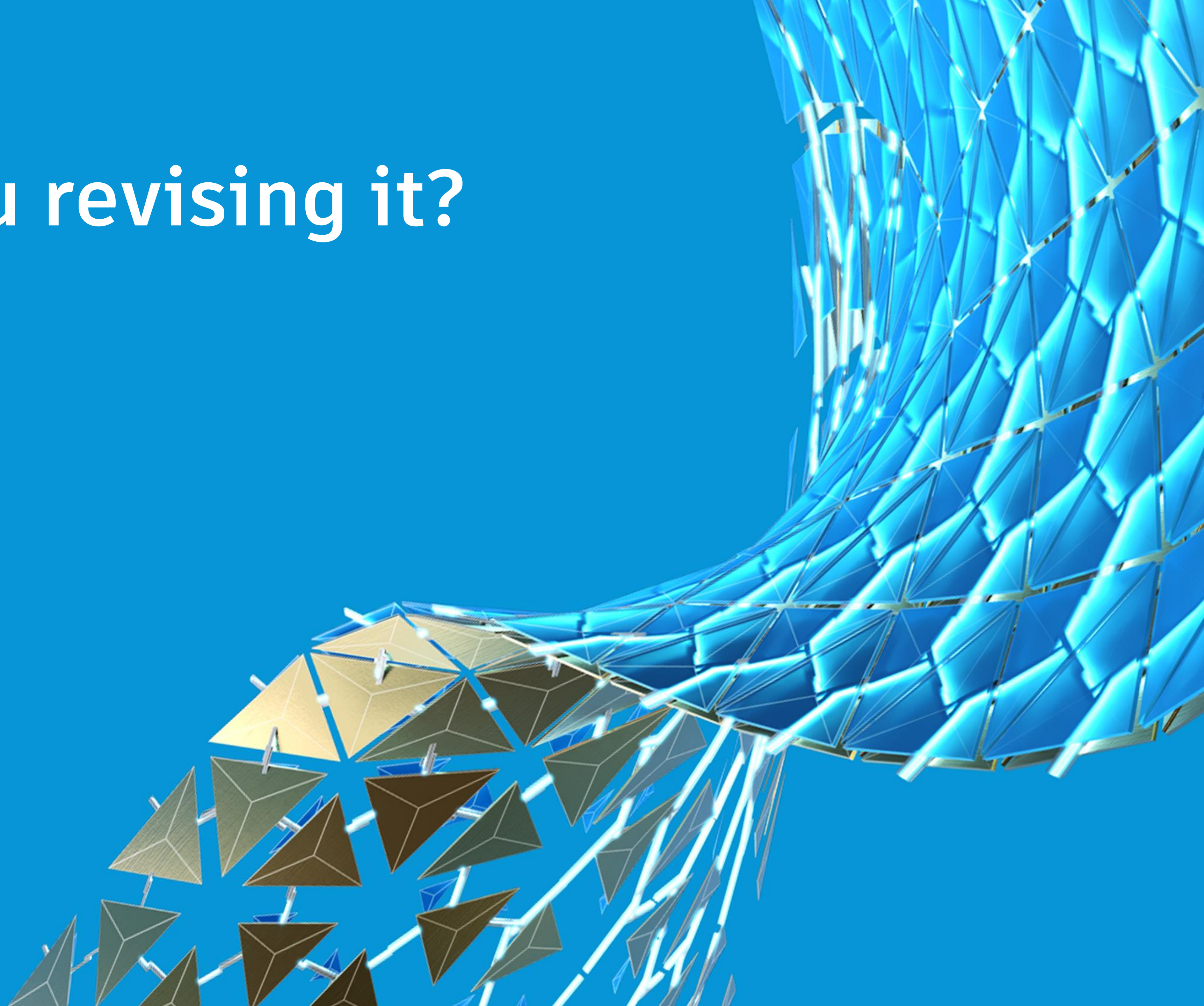
Apply

OK

Cancel

Help

How are you revising it?



Revision Management

What is a Revision?

- The act of revising, which is to make new, amended, improved, or up-to-date version
- A milestone
- Revisions are permanent versions

Revisions in Vault

- Revise your files by BUMPING the revision






Revision Schemes

- **Revisions Schemes** define the format and sequence of the revision

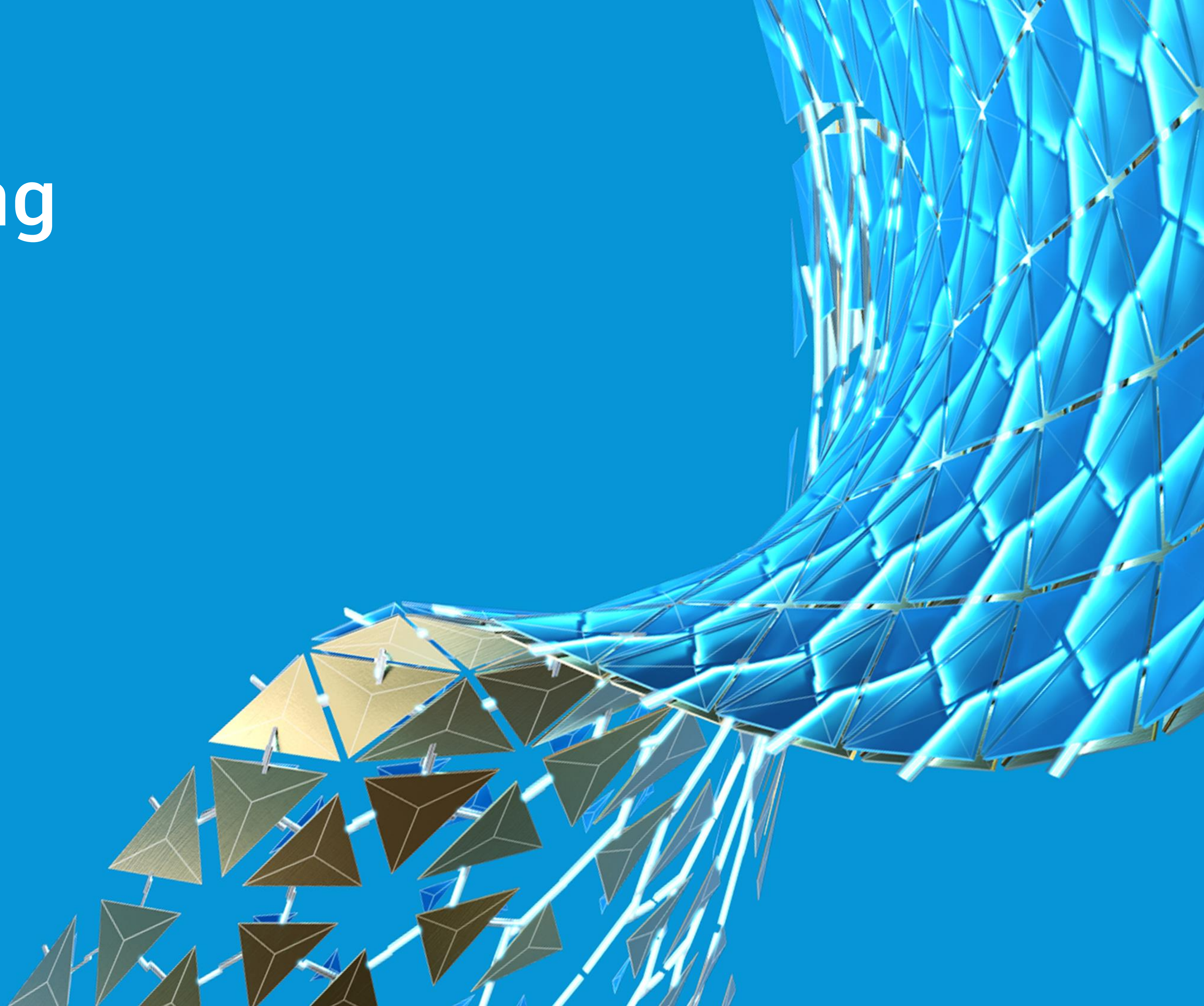
HistoryUsesWhere UsedChange OrderPreview

Number of versions:9(Local = Version #8)

Number of revisions:2

Thumbnail	File Name	Revision	State (Historical)	Created By	Checked In ▾	Comment
	20000B-PROTO.ipt	B	Released	mthomas	10/6/2019 11:08 ...	Released to manufacturing
	20000B-PROTO.ipt	B	Work in Progress	mthomas	10/6/2019 11:08 ...	
	20000B-PROTO.ipt	B	Work in Progress	mthomas	10/6/2019 11:07 ...	
	20000B-PROTO.ipt	B	Work in Progress	mthomas	10/6/2019 11:00 ...	Available for editing
	20000B-PROTO.ipt	A	Released	mthomas	10/6/2019 10:58 ...	Released to manufacturing

Transitioning



States

States identify the current status within the lifecycle

- The **Category** sets the states available

The State Transition determines:

- The **Property Criteria** requirements (compliance)
- The **Actions** that occur
- The **Purge Control**

Change State - 'Arbor_Press.iam'

Select a new lifecycle state:

Flexible Release Process ...

Work in Progress

Work in Progress

For Review

Released

Obsolete

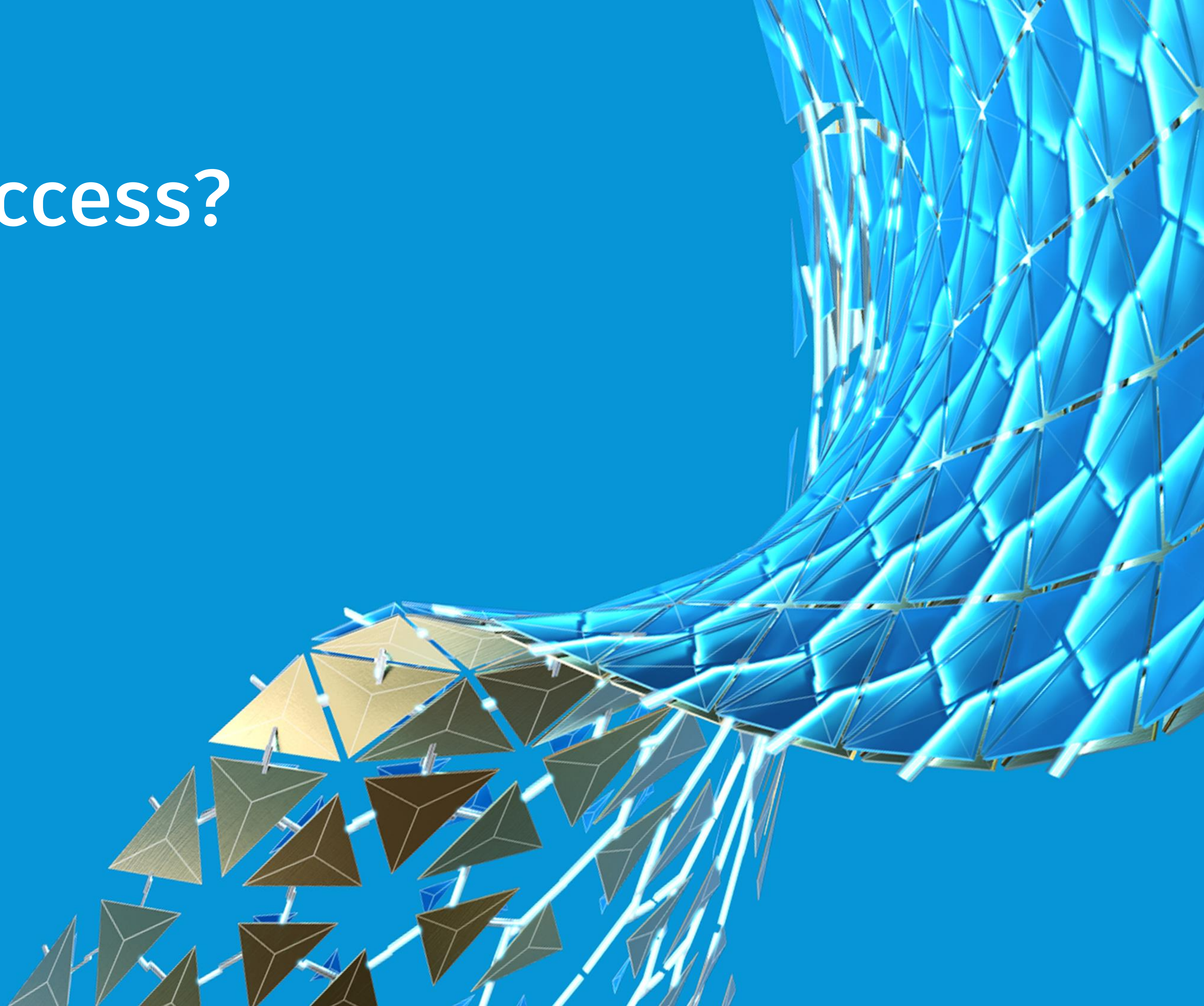
Name	State
✓ Arbor_Press.iam	Work in Progress

1 object / 458 KB

Enter comments:

OK Cancel Help

Who's got access?



Security

The **State Transition** determines the **Security**... who can make the change and what can users do once in that state.

Lifecycle Definition - 'Item Release Process'

Definition Name:

Item Release Process

Category:

Assembly, Document, DRILLS, Electrical, Electrical Projec...

Definition Security:

Combine with object-based security

Description:

Item lifecycle process for release control

Lifecycle Details

Lifecycle States:

	Name	Description
	Work in Progress	Item is available for editing
	In Review	Item is awaiting further a...
	Released	Item is ready for producti...
	Quick-Change	State for controlling Item ...
	Obsolete	Item is no longer used in ...

General

Transitions

Security

Control

Comments

Edit...

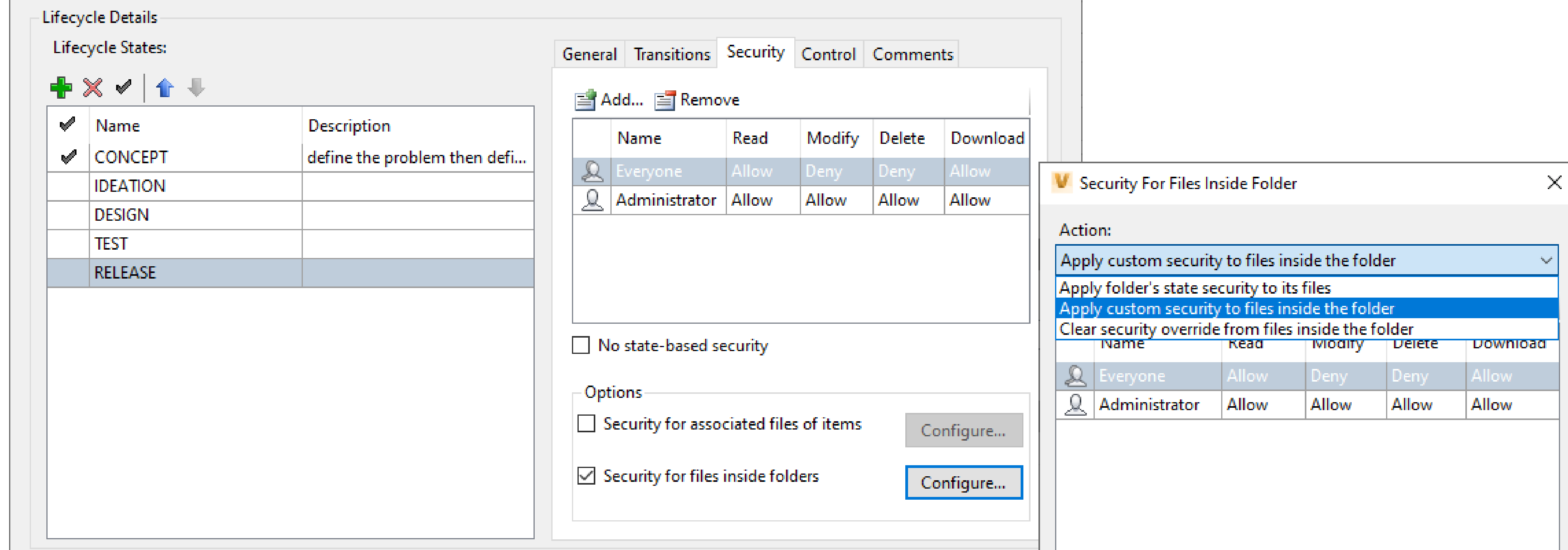
State		State
Work in Progress	➡	In Review
Work in Progress	➡	Released
Work in Progress	➡	Quick-Change
Work in Progress	➡	Obsolete
Work in Progress	⬅	In Review
Work in Progress	⬅	Released
Work in Progress	⬅	Quick-Change
Work in Progress	⬅	Obsolete

OK

Cancel

Apply

Help



States and Folders

A **Vault Project** is a **Folder** with **Lifecycle** applied. Start by assigning the **Category** to the folder.

The **State Transition** manages what happens to the files in the folder

Item State File Control

Item Security

- By default when an Item is released the files associated with the item are locked.
- By adjusting the security specific users can be granted the ability to modify files and / or delete them even when the item is released / locked

Change State - 'MISCP-00100'

Select a new lifecycle state:

Item Release Process ...

Work in Progress
Work in Progress
In Review
Released
Obsolete

		Name	State	Lifecycle Definition
✓	☐	MISCP-00100	Work in Progress	Item Release Process

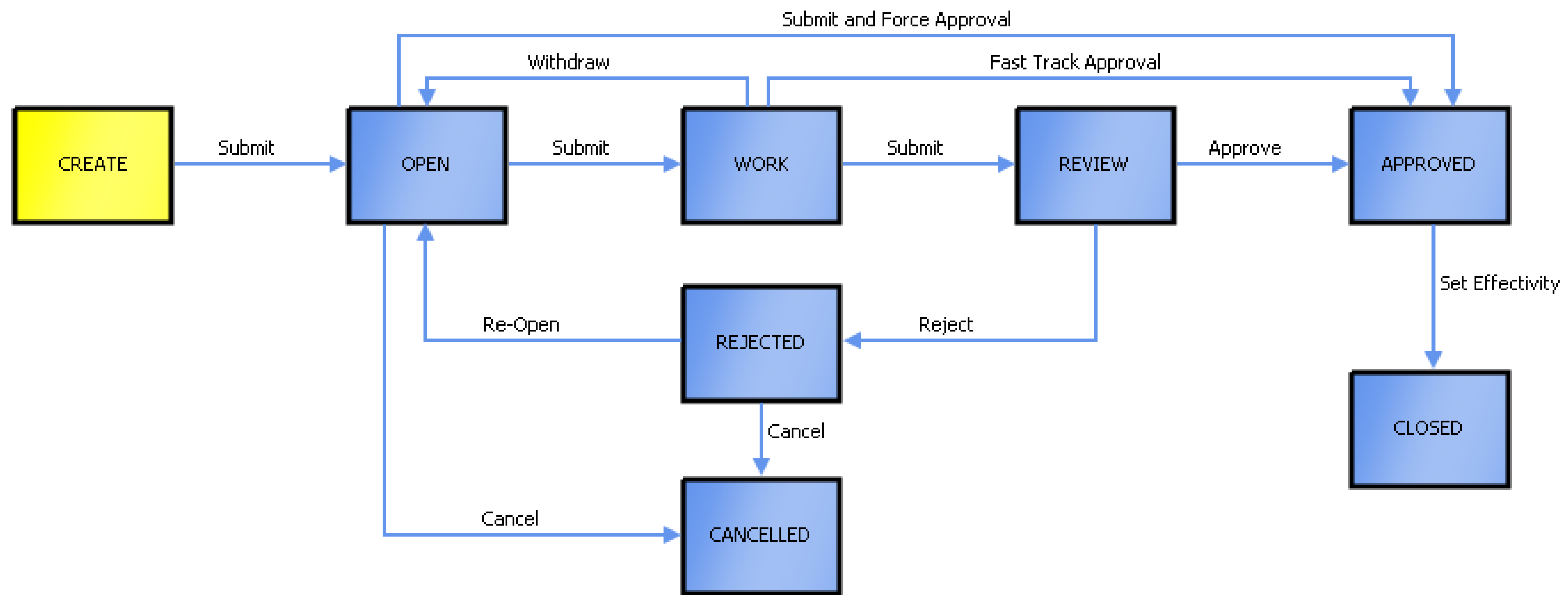
1 object

Enter comments:

OK Cancel Help

Tracking Changes

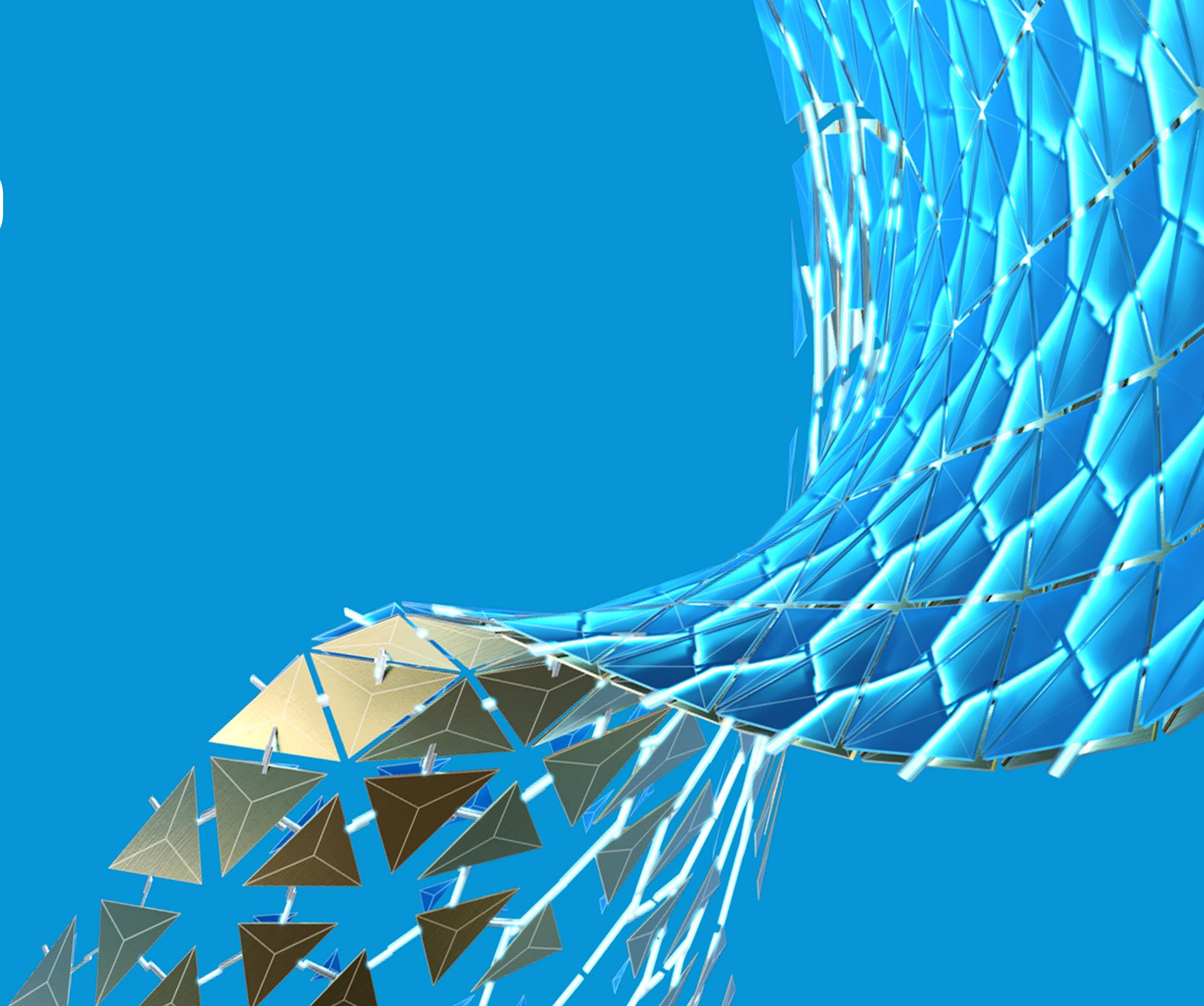




Change Orders

Vault provides **Change Orders** to capture the changes and manage the change as the modifications are completed, reviewed, and released to be manufactured. The change order is the historical “*paper trail*” of the why, how, when, who, and what of the design modifications

7-Steps (+1)



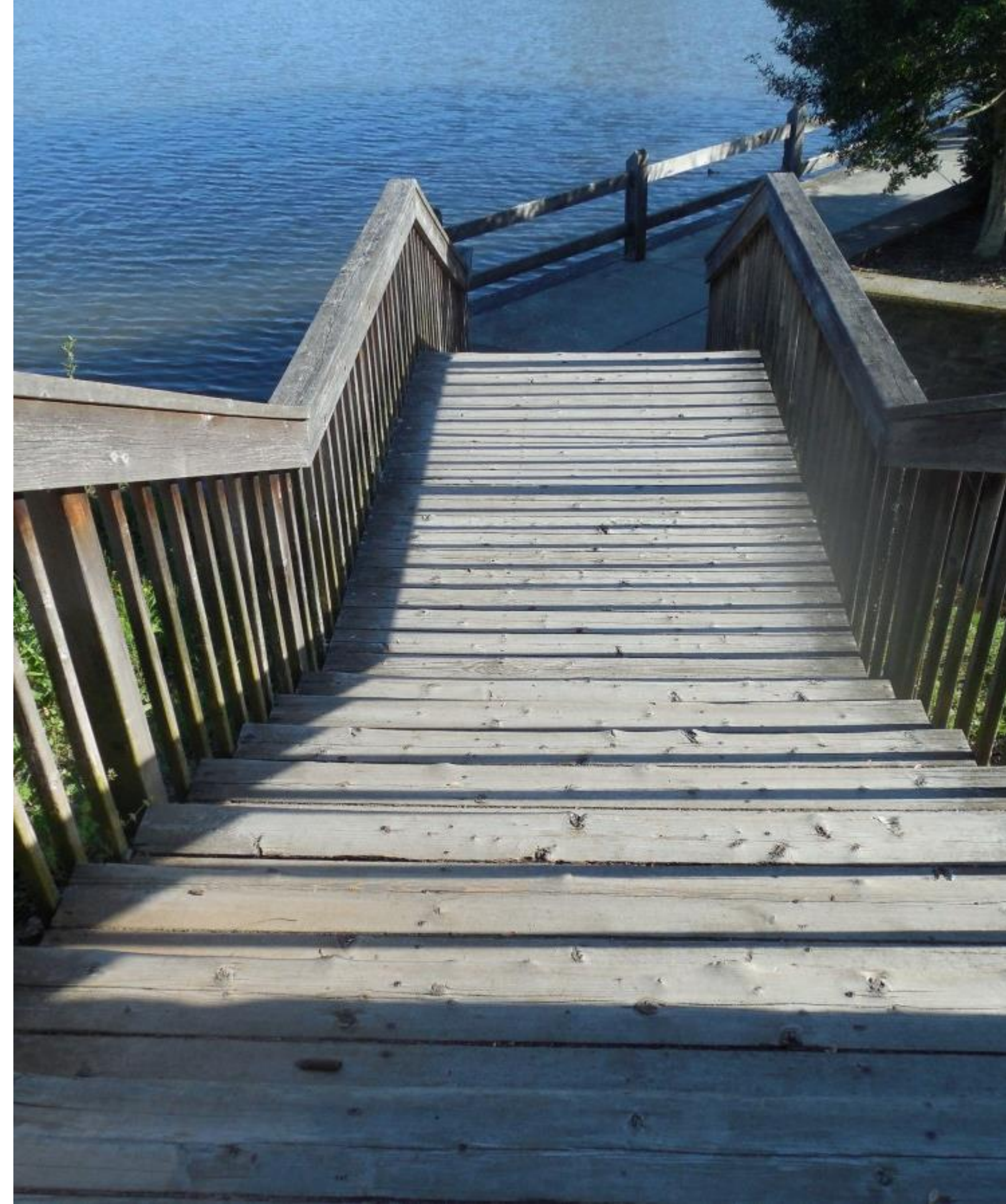


Test, Test, and Test It Again!

There's a lot of integrated components, meaning you'll need to build it, test it, tweak it, rinse & repeat.

7-Steps

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**“By changing nothing,
nothing changes.”**

– Tony Robbins

Thank You



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