

# AUTODESK® VAULT 2017

## What's New – Data Standard

Markus Koechl

Solutions Engineer PDM | PLM – Autodesk Central Europe

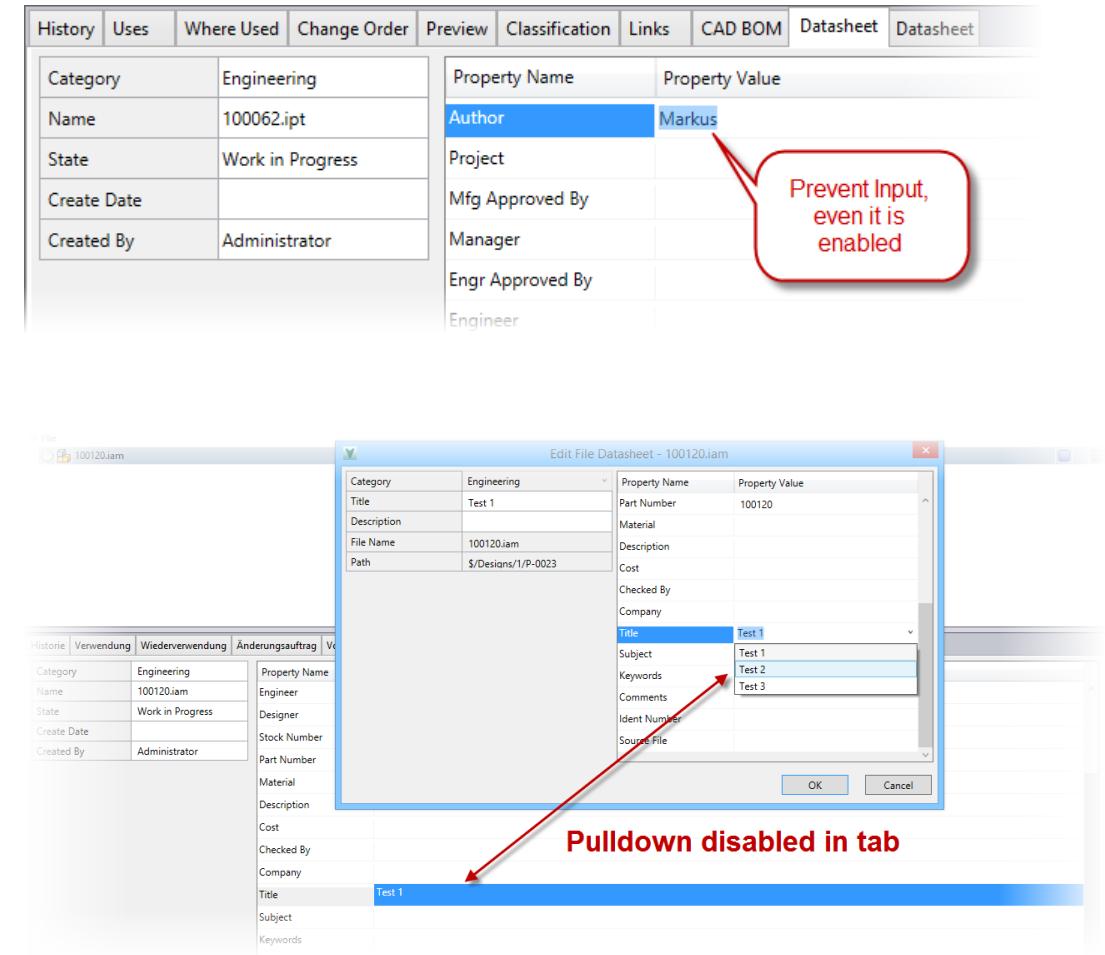
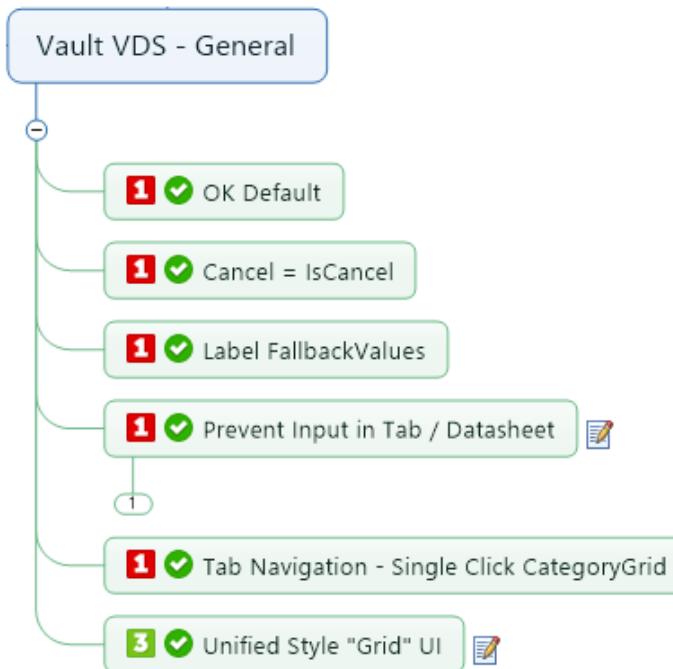
# Agenda - Overview

- What's New – General
- What's New – CAD
  - Save As – Save neutral formats to Vault
- What's New – Vault
  - Insert CAD
  - Numbering Support for File-/Folder-/CustomObj-/ Categories
- Technical Details
- Issues Fixed

# VDS 2017 - General

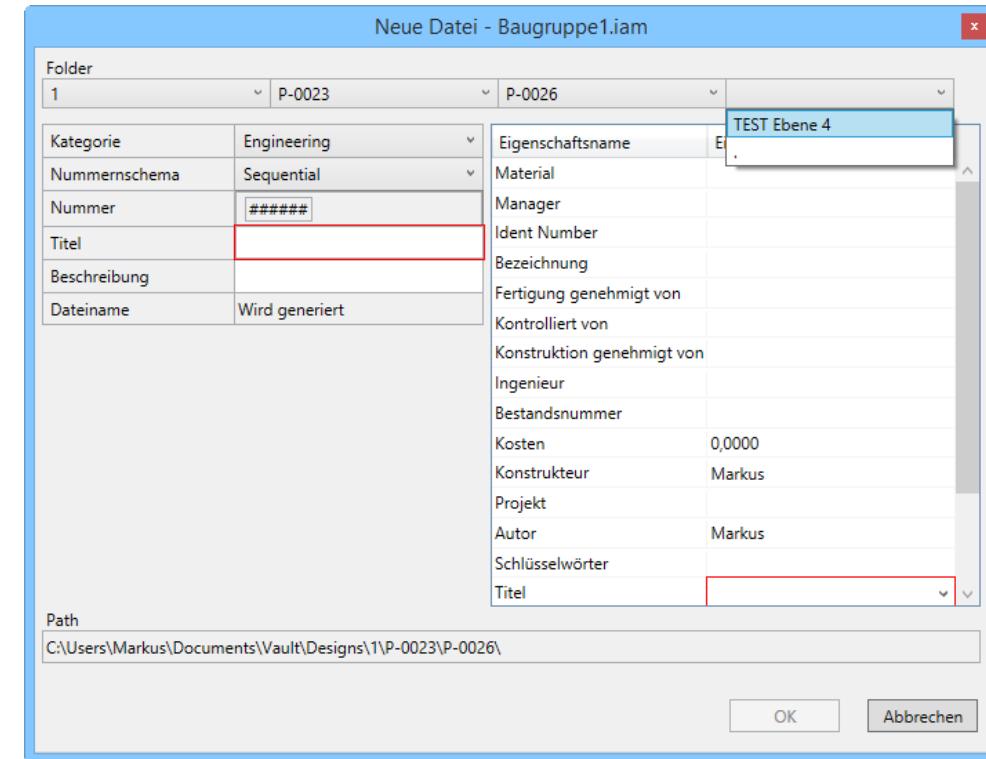
# Default Configuration | General

- Updated configuration
  - user experience



# Default Configuration | CAD

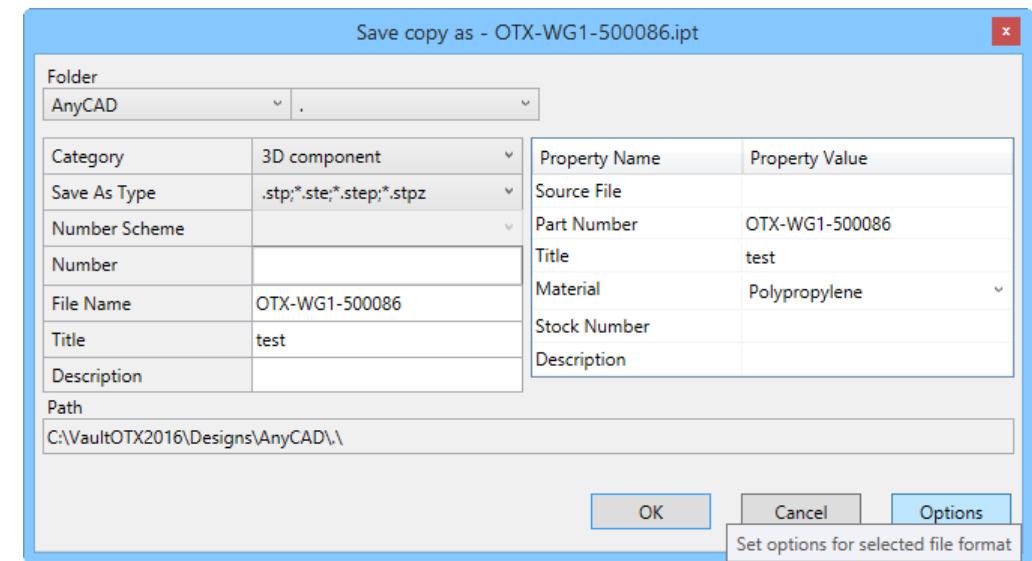
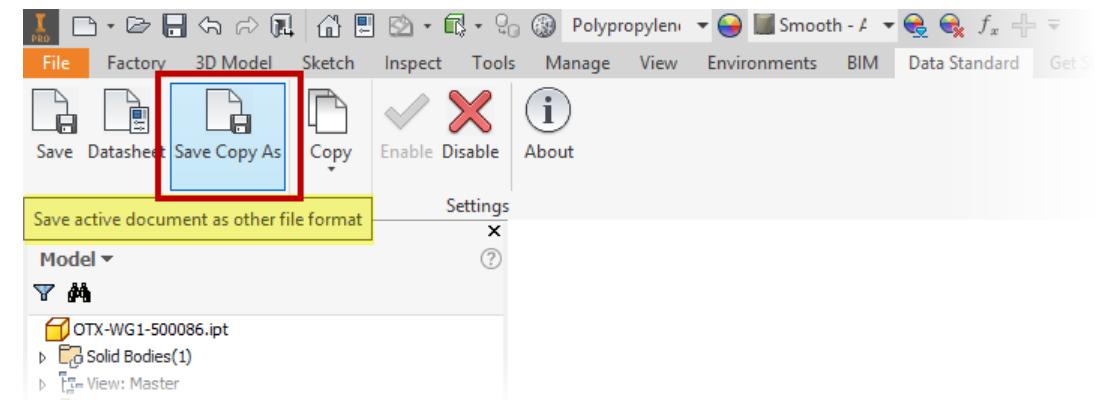
- BreadCrumb
  - Filter according ACL
  - Supports 2017 security model



# VDS 2017 What's New - CAD

# VDS 2017 – Inventor | Save As Command / Dialog

- 3D Components – Save As
  - STEP
- 2D Drawings – Save As
  - 2D DXF
  - 2D DWG
  - 2D PDF



# VDS 2017 – Inventor | Save As Dialog

- Access to Options
- Auto Check In

File

Drawing Inventor

OTX-WG1-500088.idw

Work in Progress

Other

OTX-WG1-500088.pdf

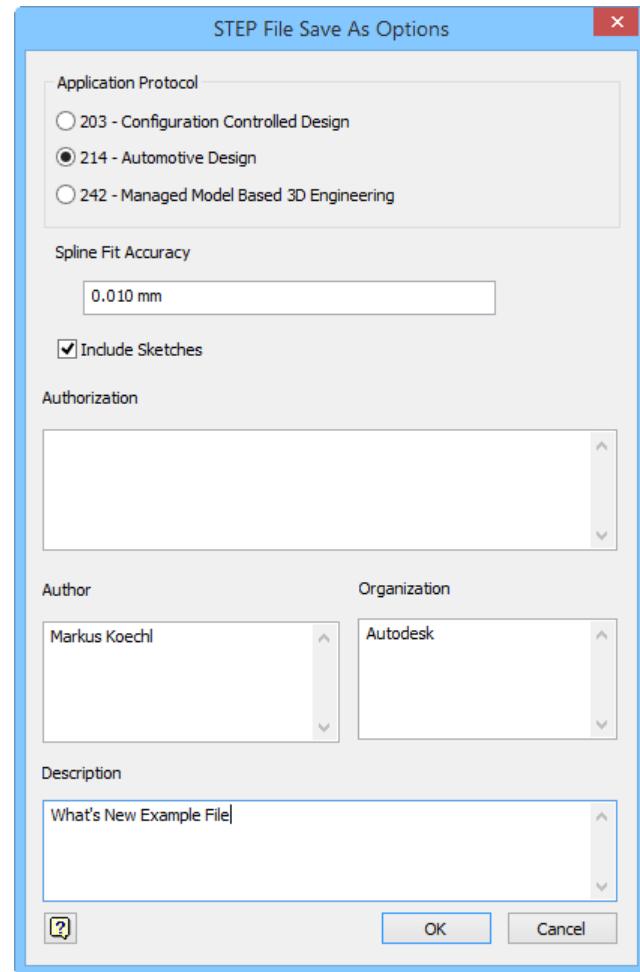
History

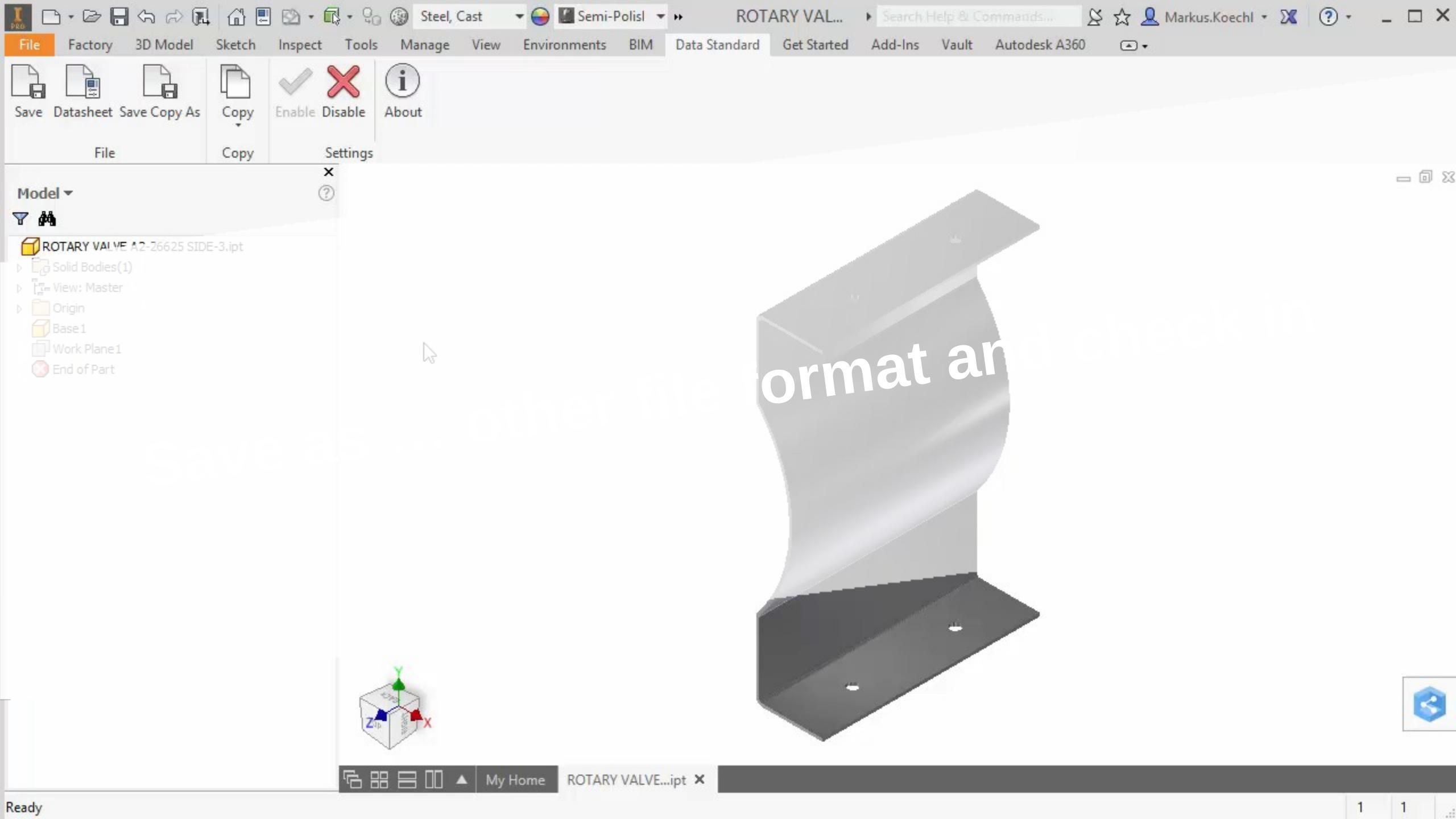
Number of versions: 1 (Local = Version #1)

Number of revisions: 1

Show all versions

Thumb...	File Name	Revision	State (Historical)	Created By	Checked In	Comment
	OTX-WG1-500088.pdf	-		Administrator	4/19/2016 8:45 ...	Added via DataStandard





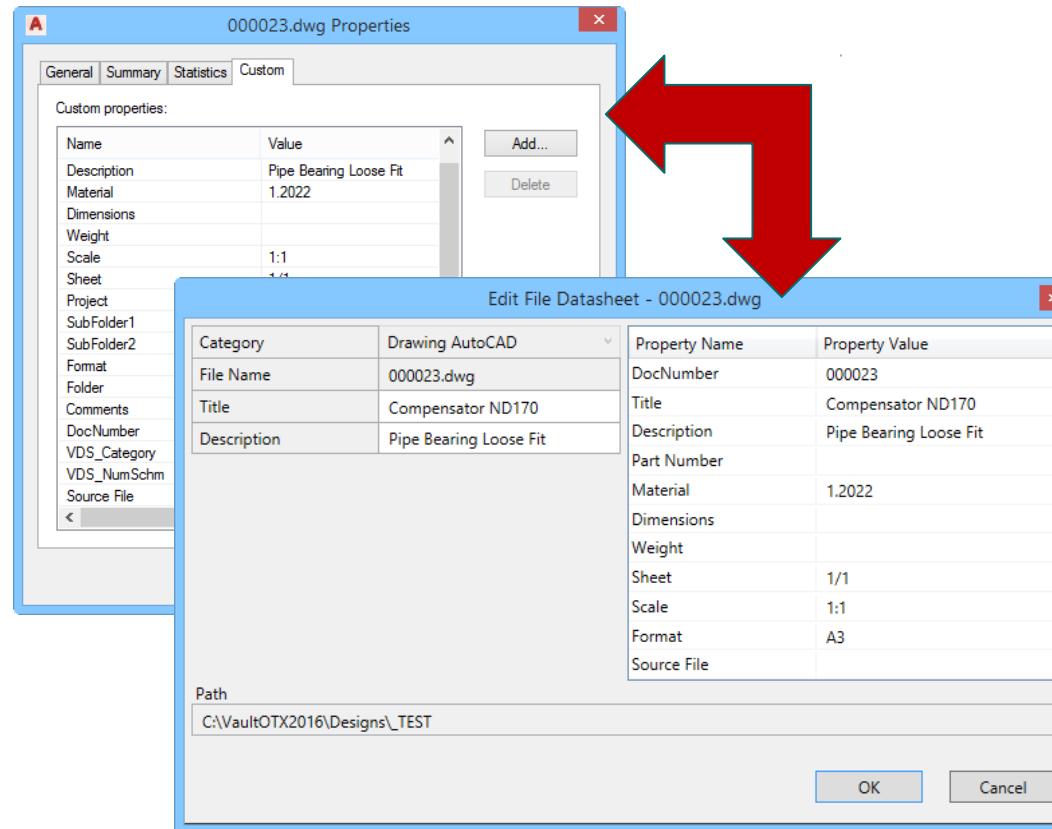
# VDS AutoCAD – Property Management

Property Mapping | Property Labeling / Dynamic Category Properties

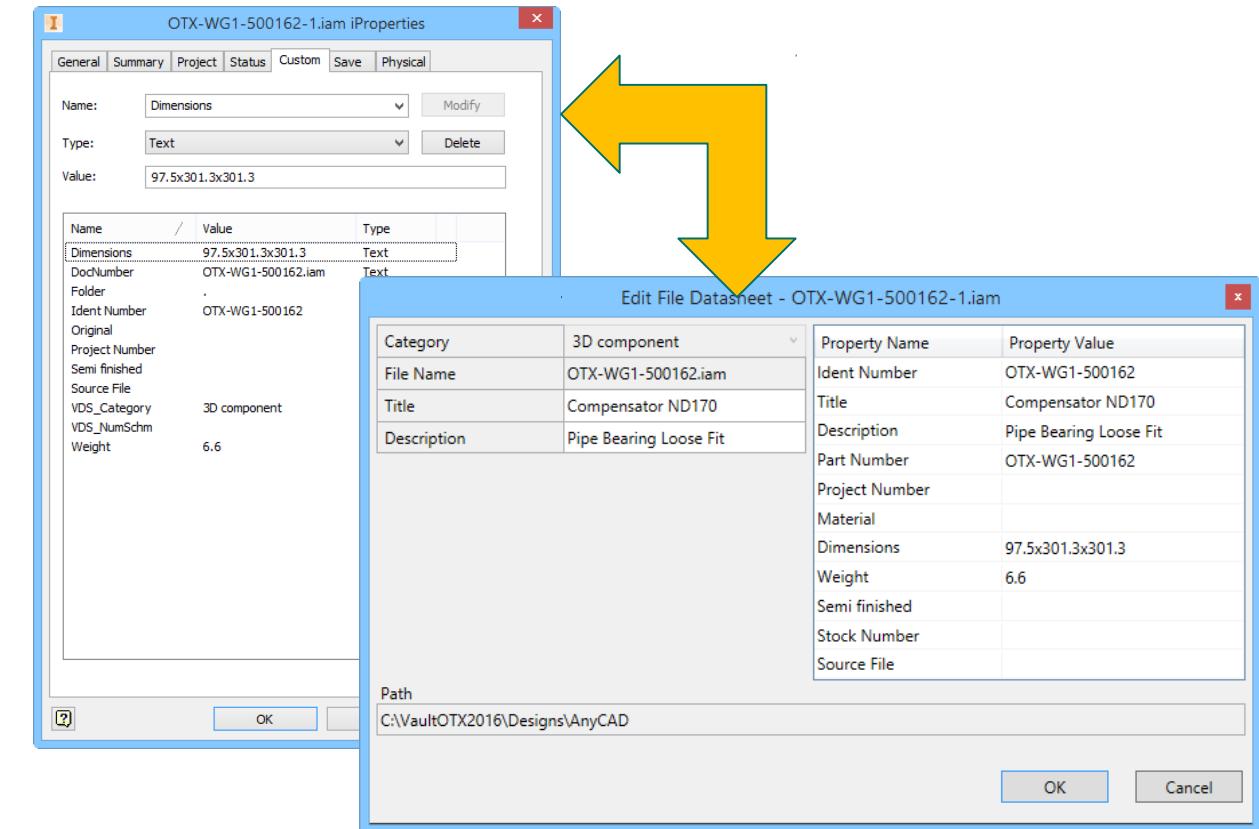
# VDS – CAD | Property Management – Overview 1

VDS works with...

## ■ AutoCAD File Properties



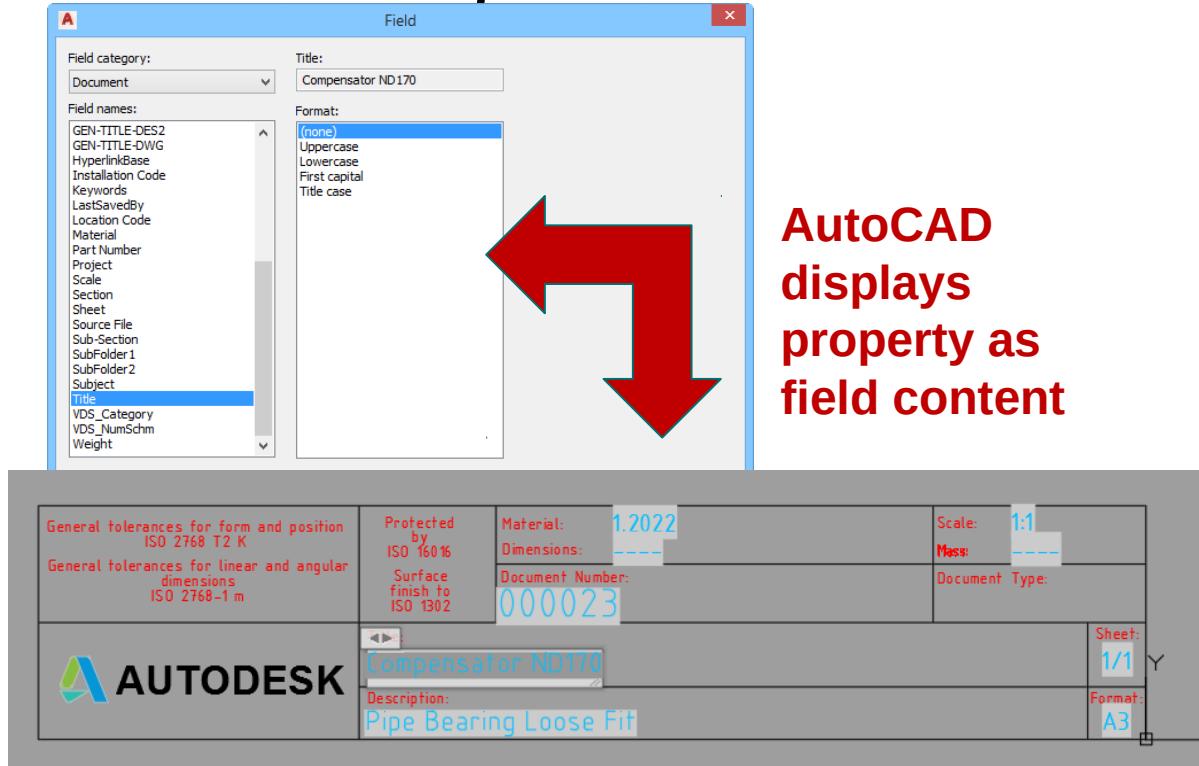
## Inventor File / iProperties



# VDS – CAD | Property Management – Overview 2

## AutoCAD

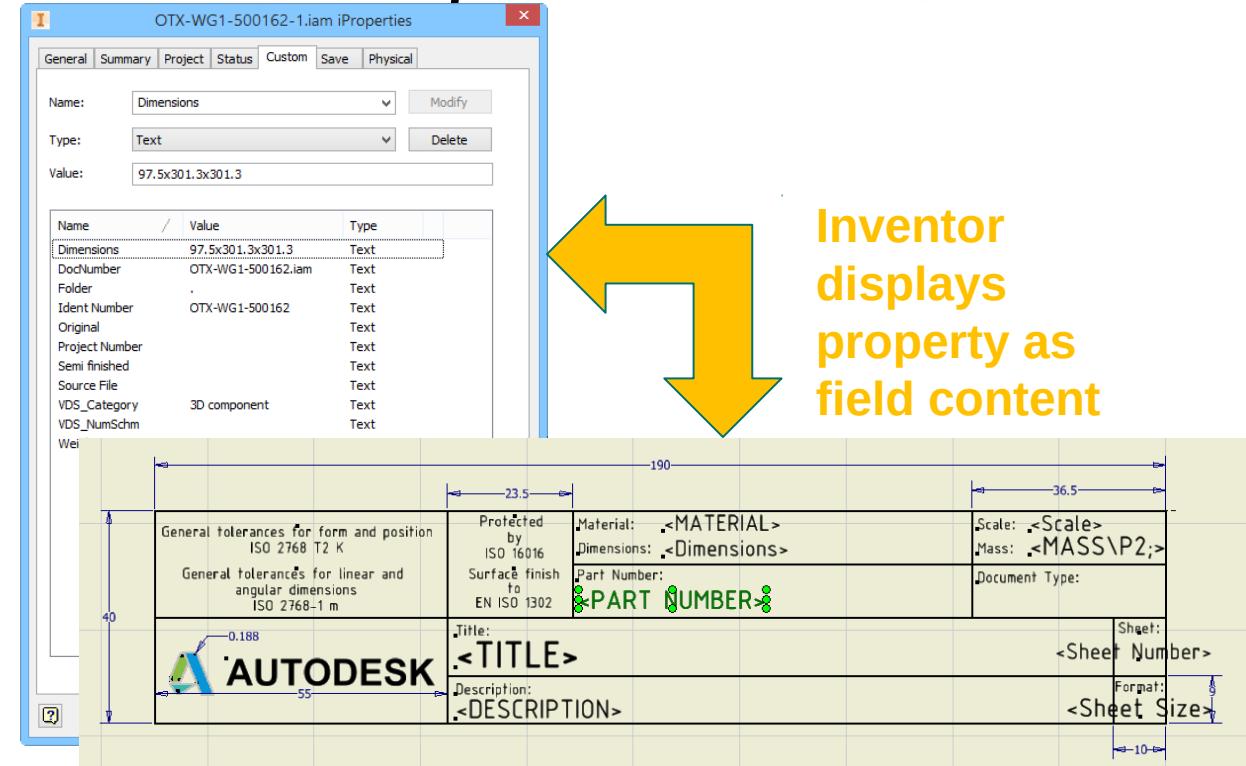
### ■ Drawing Title - Fields



AutoCAD displays property as field content

## Inventor

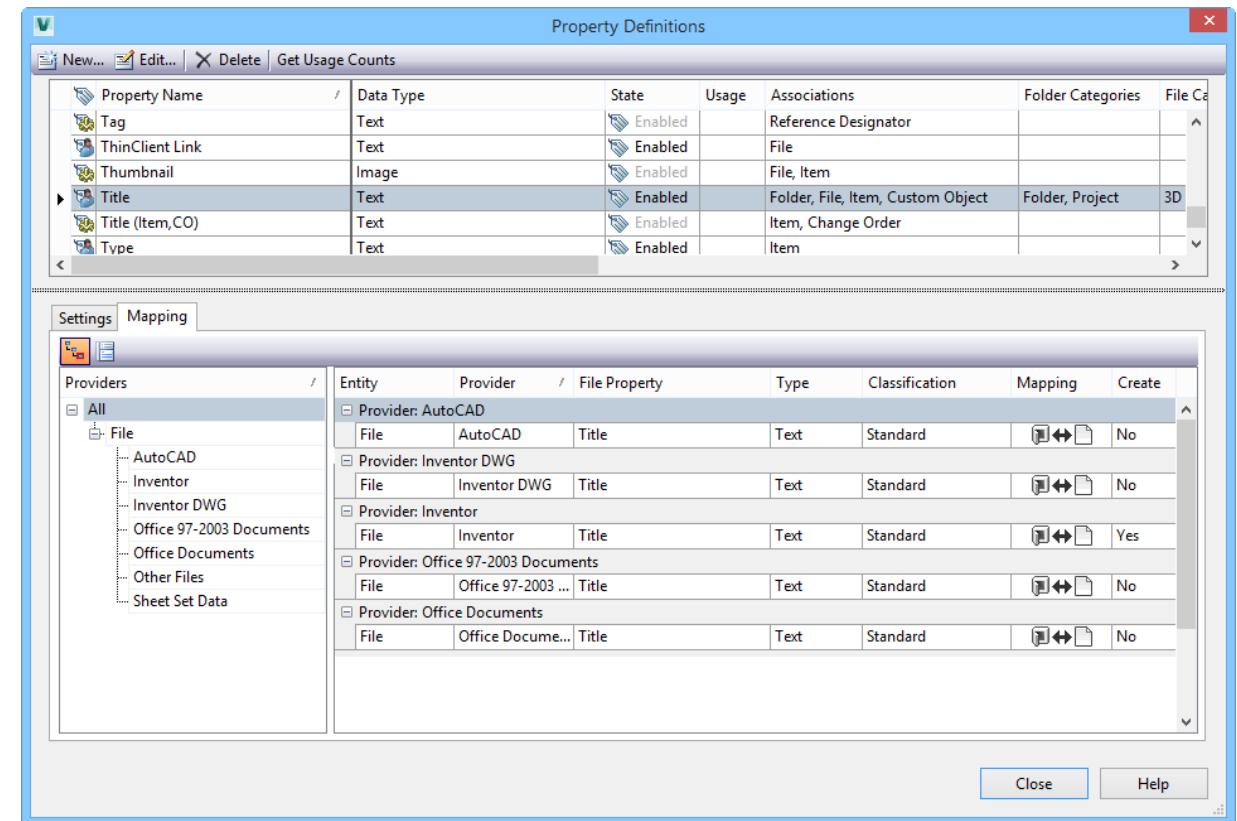
### ■ Drawing Title - Fields



Inventor displays property as field content

# VDS – CAD | Property Management – Overview 3

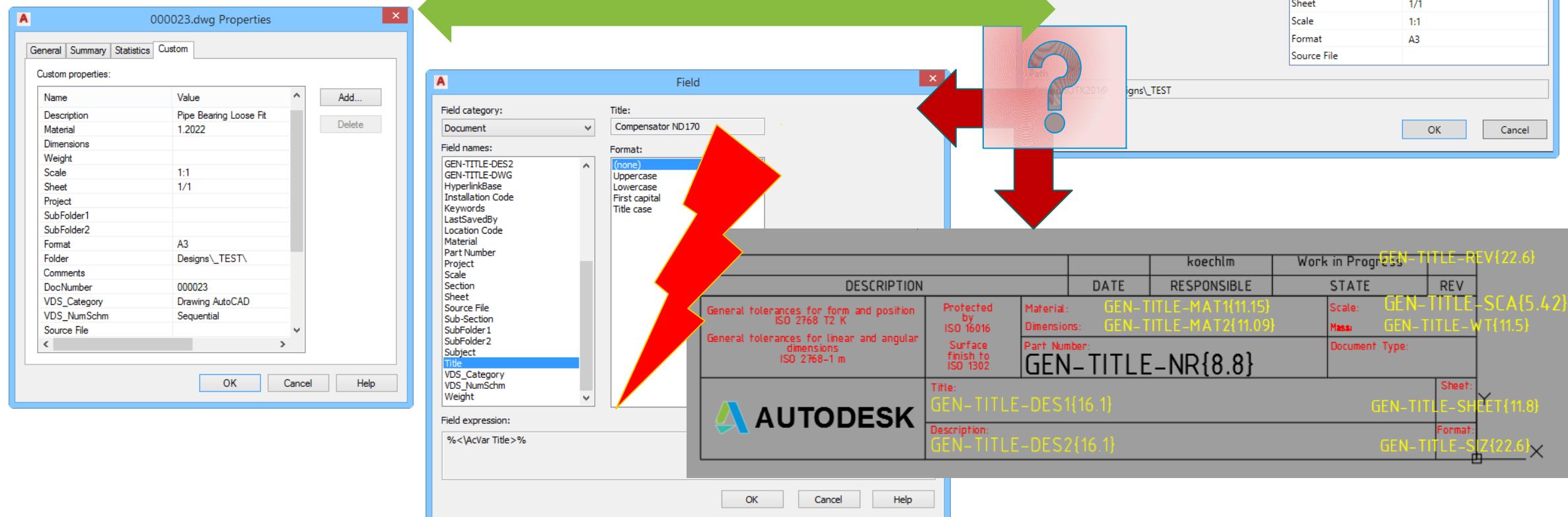
- Vault – UPD Mapping
  - Standard Properties
  - Custom Properties



# VDS – AutoCAD | Property Management – Block Attributes

## AutoCAD

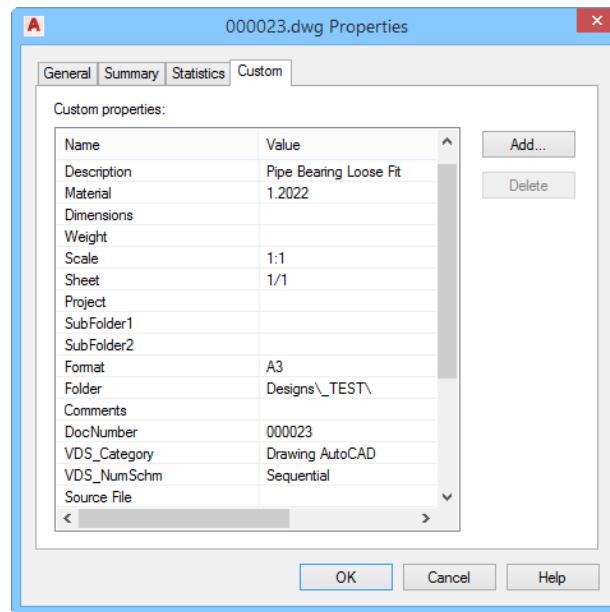
### ■ Drawing Title – Attributes



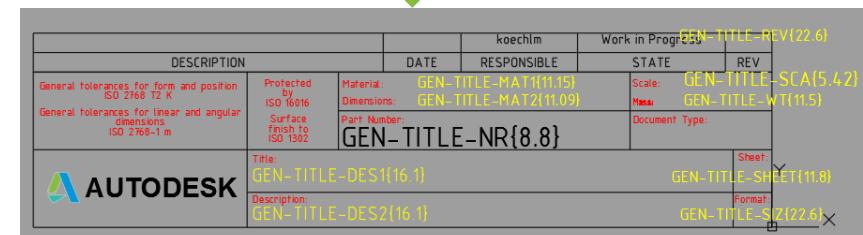
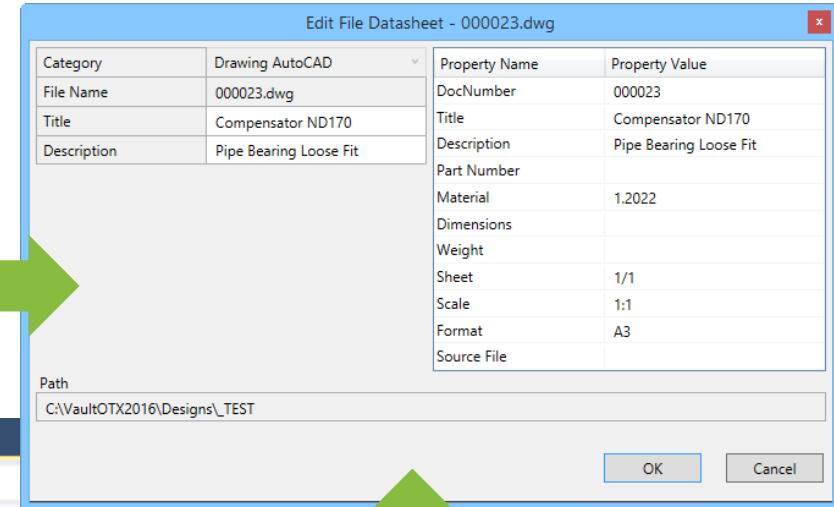
# VDS – AutoCAD | Property Management – Block Attributes

## AutoCAD

### ■ Drawing – Title Attributes



```
<?xml version="1.0" encoding="utf-8"?>
<Configuration>
  </PropertyDefinitions>
  <ShowCheckInDialog>True</ShowCheckInDialog>
  <TitleBlock>ISO_TITLEA,ISO_TITLEB,DIN_TITLE</TitleBlock>
</Configuration>
```

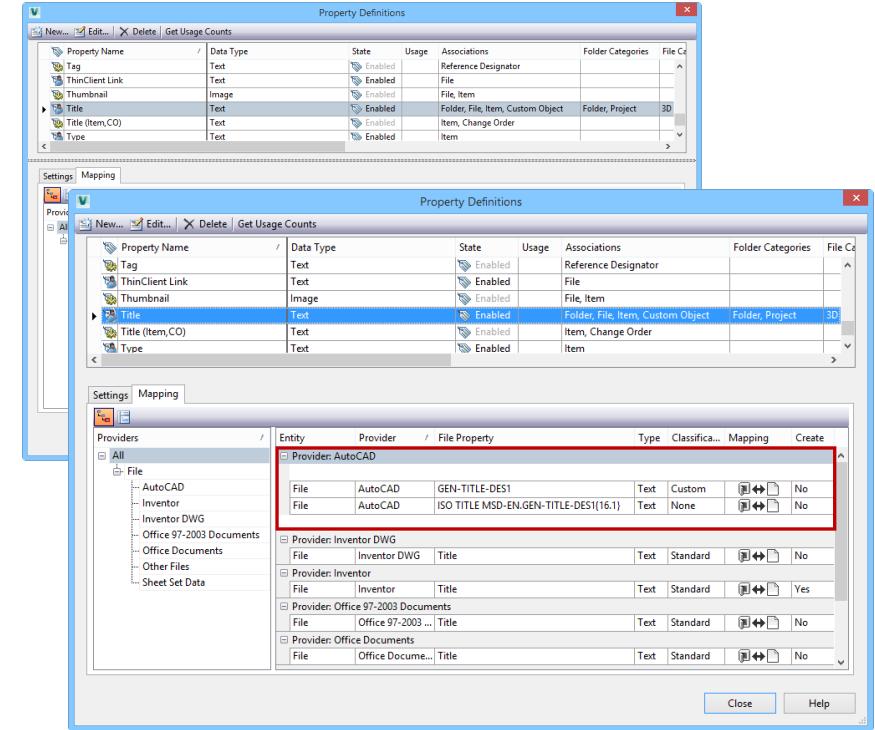


# VDS – AutoCAD | Property Management – Block Attributes

- ✓ Vault – UPD Mapping
  - Standard Properties
  - Custom Properties

- For Legacy Support and VDS independency add...

- Vault – Block Index
- Vault – Block Mapping

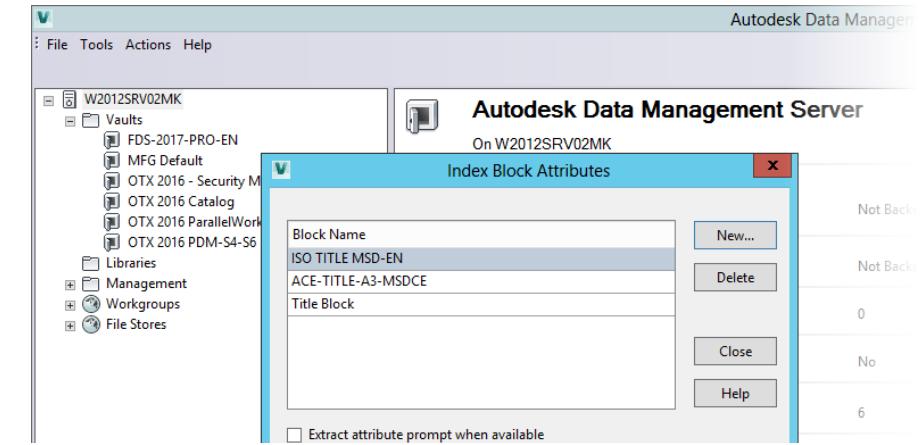


# VDS – AutoCAD | Property Management – Block Attributes

➤ For Legacy Support and VDS independency add...

➤ Vault – Block Index

➤ Vault – Block Mapping



Entity	Provider	File Property	Type	Classification	Mapping	Create
File	AutoCAD	GEN-TITLE-DES1	Text	Custom		Yes
File	AutoCAD	ISO TITLE MSD-EN.GEN-TITLE-DES1{16.1}	Text	None		No
File	AutoCAD	ISO TITLE MSD-EN.GEN-TITLE-DES1{16.1}	Text	None		No
File	AutoCAD	ISO TITLE MSD-EN.GEN-TITLE-DES1{16.1}	Text	None		No

*VDS 2016 Update 1*  
*VDS 2016 Update 2*  
**VDS 2016 Update 3**  
**VDS 2017**

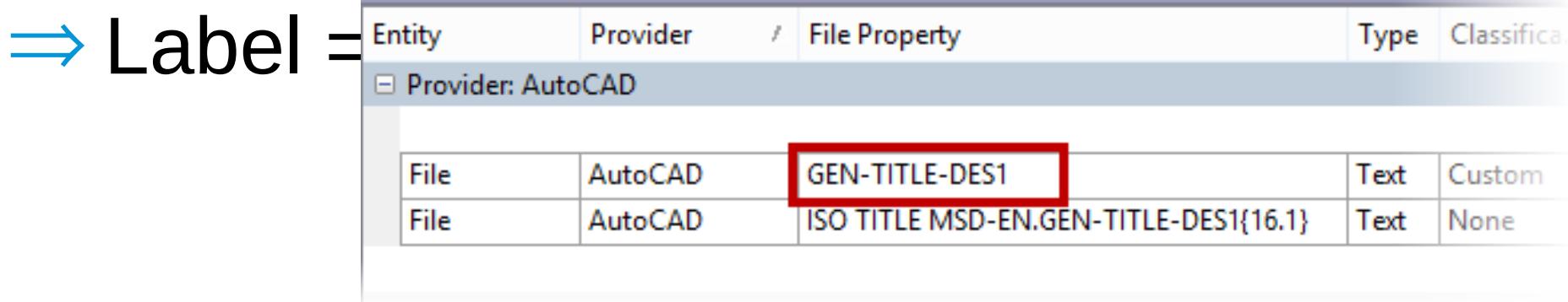
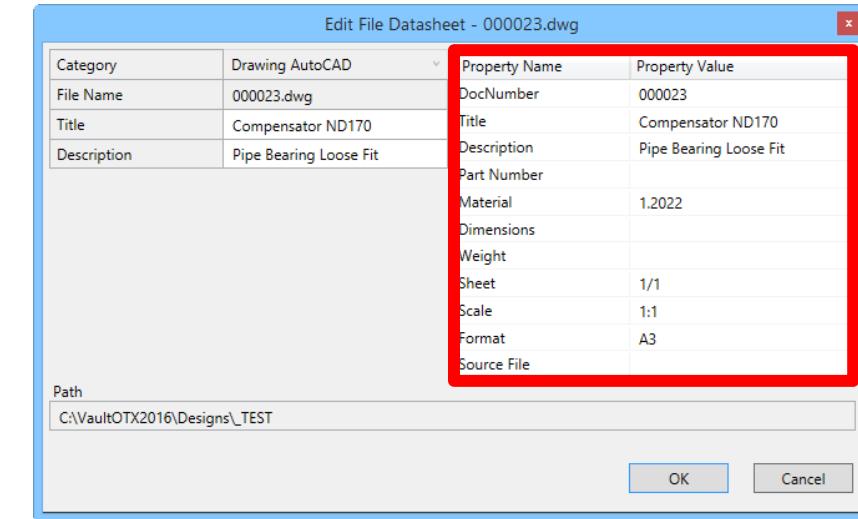
# **VDS AutoCAD – Property Management**

Property Mapping |

Property Labeling / Dynamic Category Properties

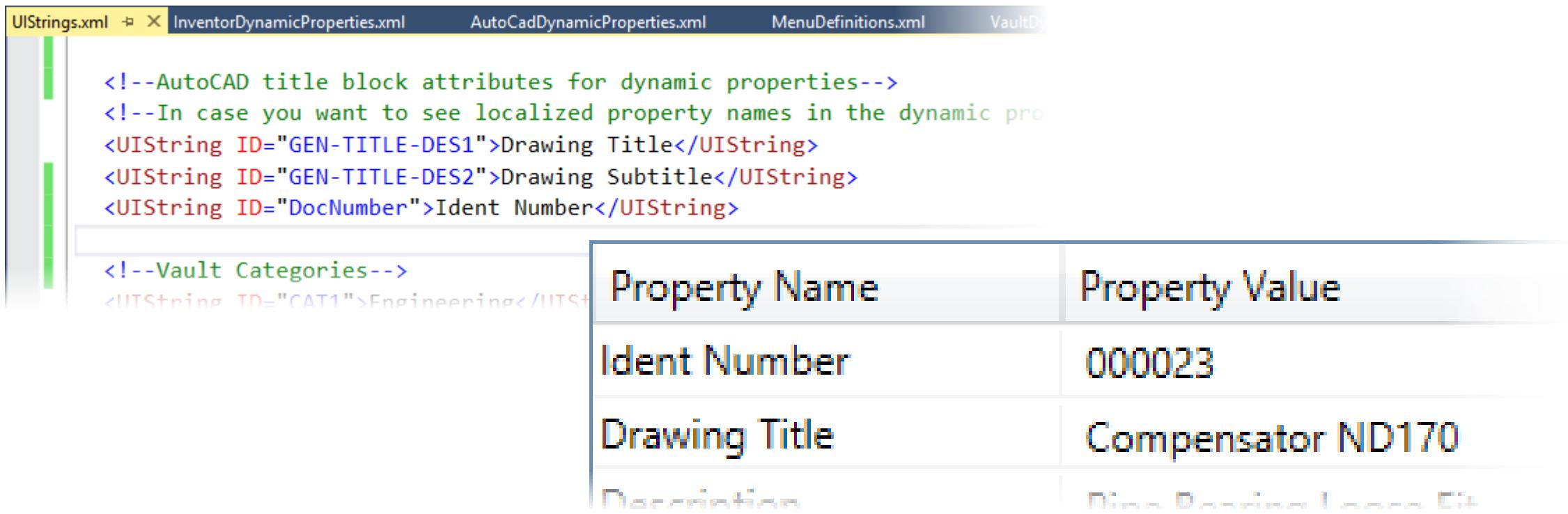
# VDS – AutoCAD | Dynamic Property Grid - Labeling

- Dynamic properties bind to
  - Category
  - **Primary** mapping



# VDS – AutoCAD | Dynamic Property Grid - Labeling

- Override property/attribute name to “friendly label”



The image shows a screenshot of AutoCAD's Dynamic Properties dialog box and its corresponding XML configuration file.

**XML Configuration (UIStrings.xml):**

```
<!--AutoCAD title block attributes for dynamic properties-->
<!--In case you want to see localized property names in the dynamic pro
<UIString ID="GEN-TITLE-DES1">Drawing Title</UIString>
<UIString ID="GEN-TITLE-DES2">Drawing Subtitle</UIString>
<UIString ID="DocNumber">Ident Number</UIString>

<!--Vault Categories-->
<UIString TD="CAT1">Engineering</UIString>
```

**Dynamic Properties Dialog Box:**

Property Name	Property Value
Ident Number	000023
Drawing Title	Compensator ND170
Description	None. Drawing Name: ND170

# VDS – Inventor | Dynamic Property Grid - Labeling

- Override custom iProperty name to get a “friendly label”

Property Name	Property Value
aim_description_2	Extended description text

Description

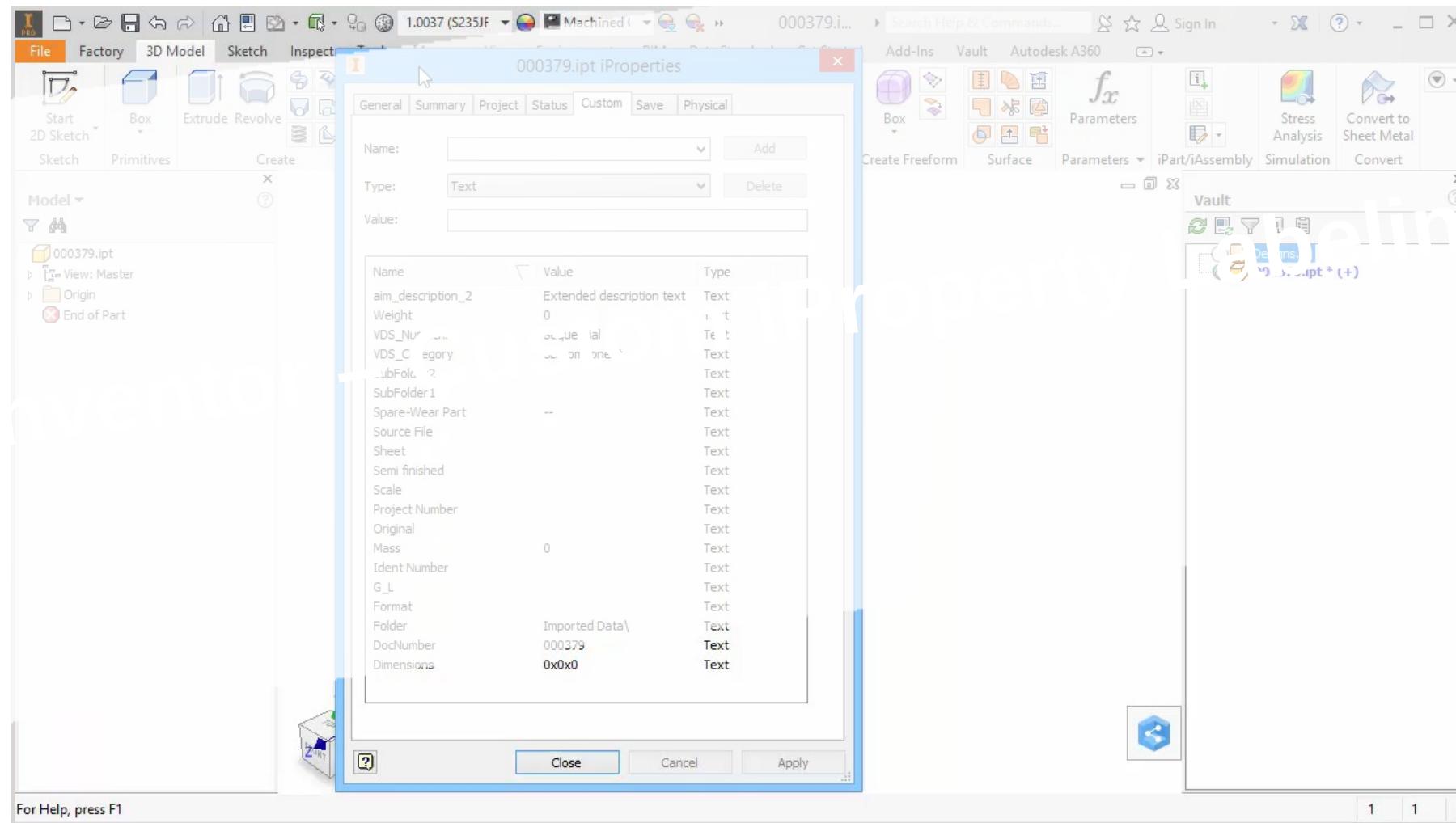
<!--Inventor custom iProperty labeling-->

<!--Use overrides to localize or change display names of mapped cu

→<UIString ID="aim\_description\_2">Description (long)</UIString>

| Property Name      | Property Value            |
|--------------------|---------------------------|
| Description        |                           |
| Description (long) | Extended description text |

# VDS – Inventor | Dynamic Property Grid – Labeling Video

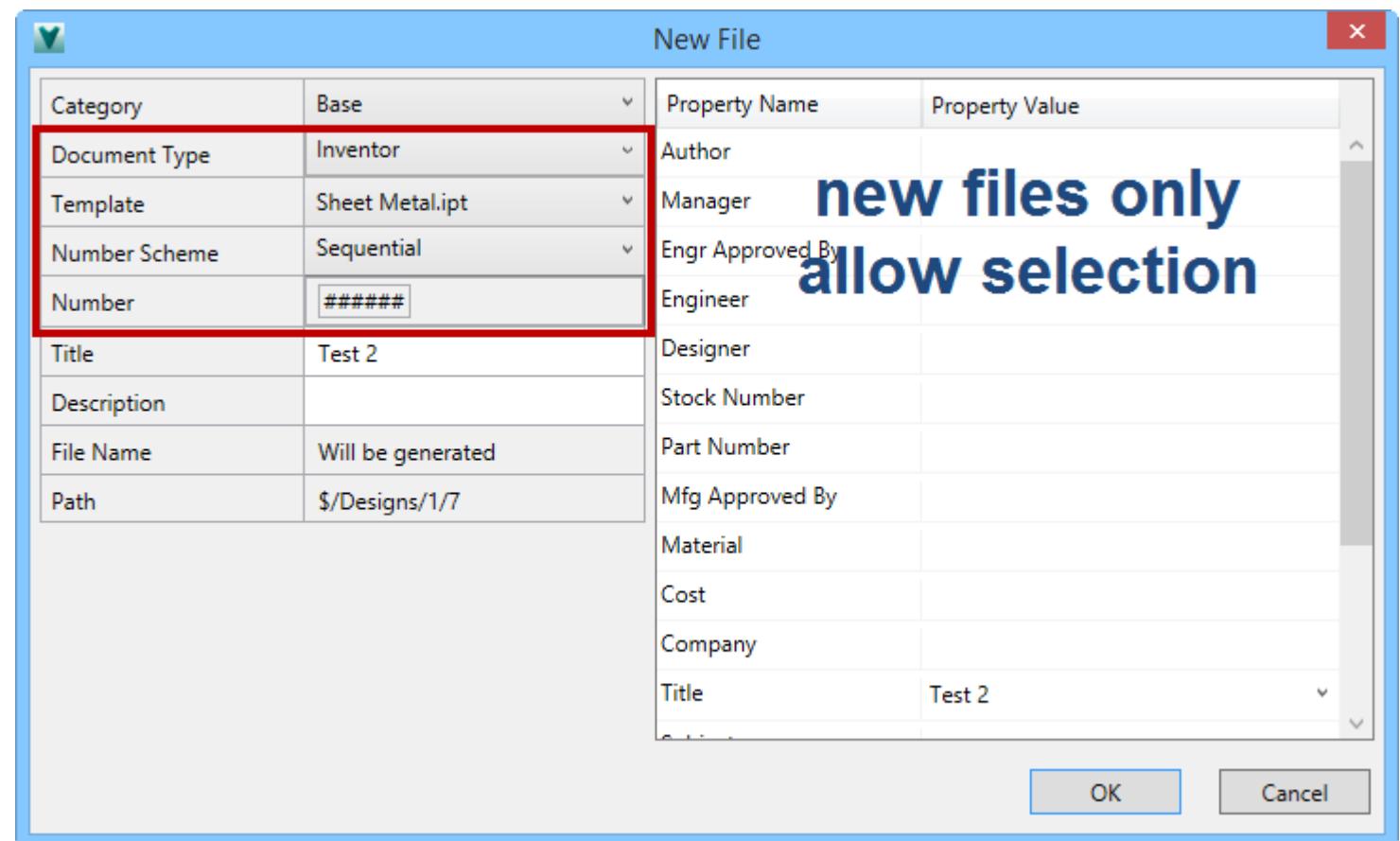


# VDS 2017 What's New - Vault

# VDS 2017 – Vault | New File...

## Dynamic Visibility – General Properties

- Create Mode
- Edit Mode



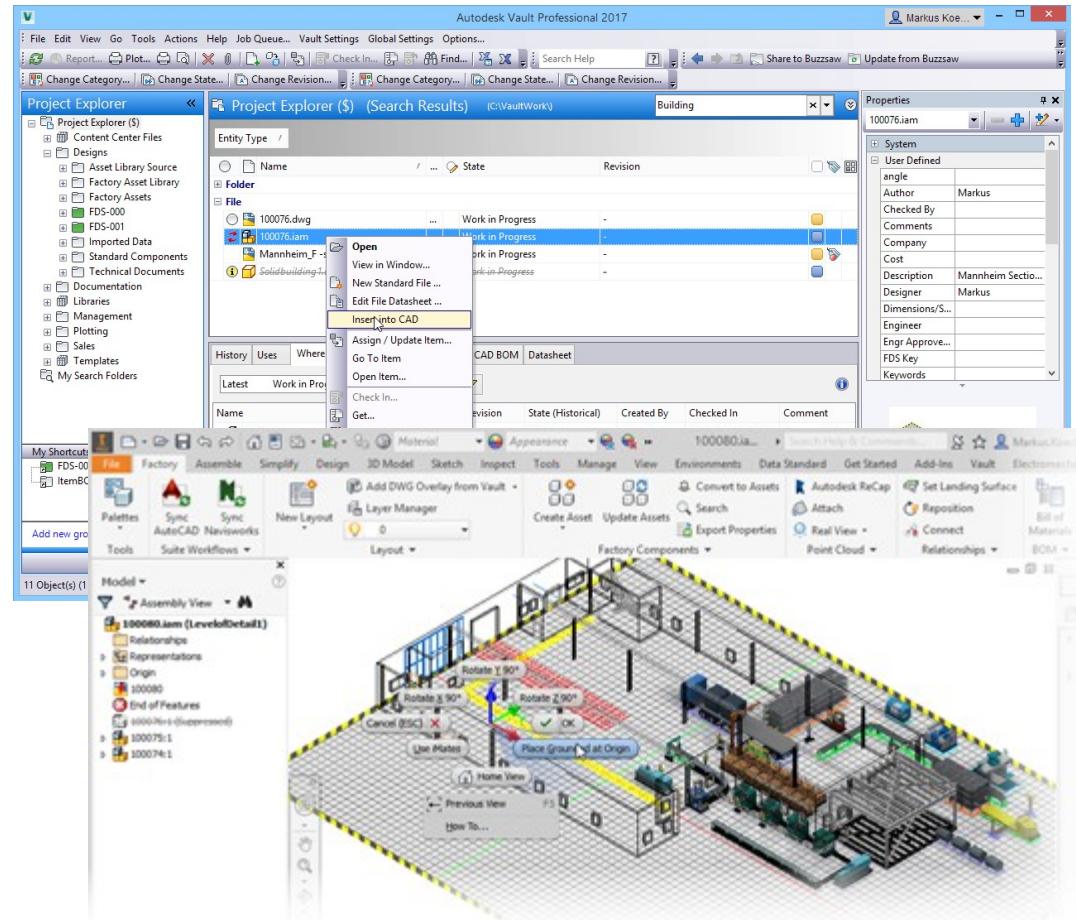
# VDS 2017 – Vault | CAD – BOM

## Thumbnail Support

| History   | Uses     | Where Used     | Change Order | Preview        | CAD BOM                  | Datasheet       |                                 |  |  |
|-----------|----------|----------------|--------------|----------------|--------------------------|-----------------|---------------------------------|--|--|
| Thumbnail | Position | Part Number    | Quantity     | Component Type | Material                 | Title           | Description                     |  |  |
|           | 4        | 20-200-356     | 4            | Part           |                          | WELDED ASSEMBLY | FRAME MOUNTING FOOT             |  |  |
|           | 1        | 200-375        | 1            | Part           | NA                       | FRAME LAYOUT    | WIREFRAME LAYOUT DRAWING        |  |  |
|           | 3        | 200-371        | 1            | Part           | STEEL - HIGH GRADE ALLOY | PLATE           | MAIN WELDED FRAME, CENTER BRACE |  |  |
|           | 2        | 200-350        | 4            | Part           | STEEL - HIGH GRADE ALLOY | PLATE           | 120X60 TUBE END CAP             |  |  |
|           | 9        | 200-374        | 2            | Part           | Steel, Alloy             | PLATE           | NAME PLATE, SHORT               |  |  |
|           | 0        | OTX-WG1-500001 | 1            | Assembly       |                          |                 |                                 |  |  |

# VDS 2017 – Vault | Insert CAD

- Context Command in
  - List Views
  - Search Results
- Auto – Switch to Inventor



Autodesk Vault

# Autodesk Exchange App - Insert To CAD

Markus Koechl

Solutions Engineer PDM | PLM – Autodesk Central Europe

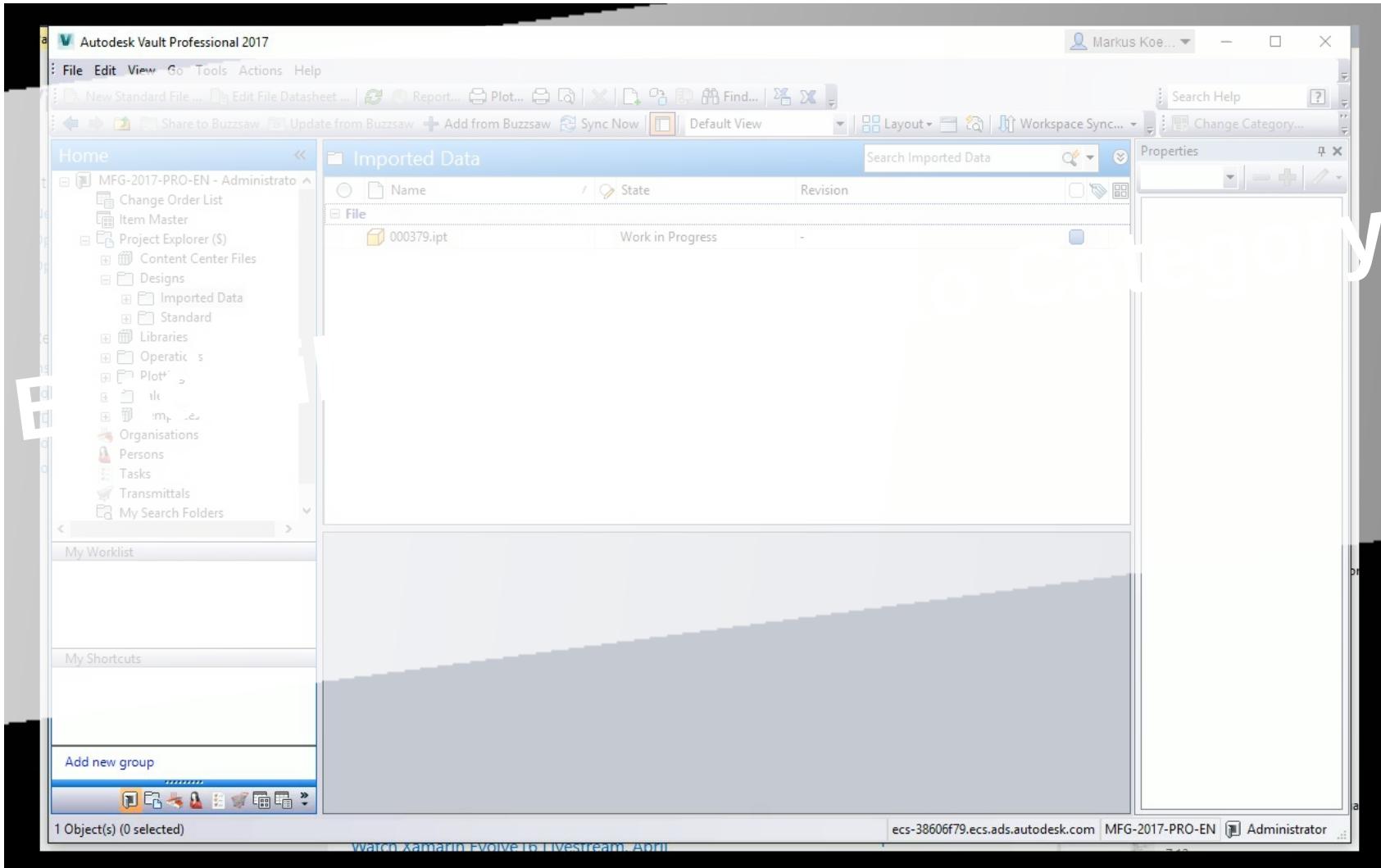


# VDS 2017 – Vault | File / Folder / Project Numbering

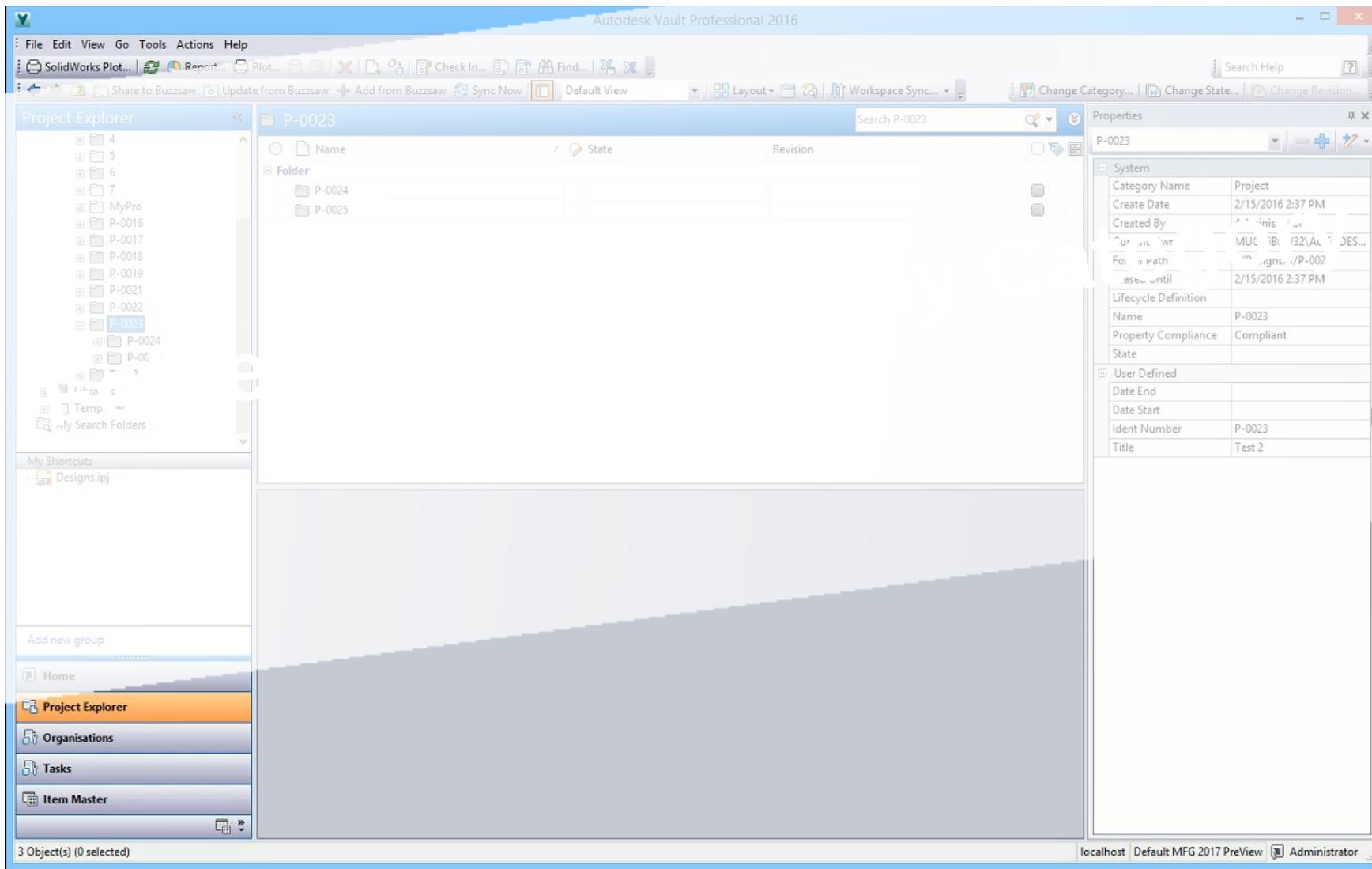
## Concept

- Numbering Scheme = Entity Category Name
- Enable | Disable Numbering

# File Numbering | Video



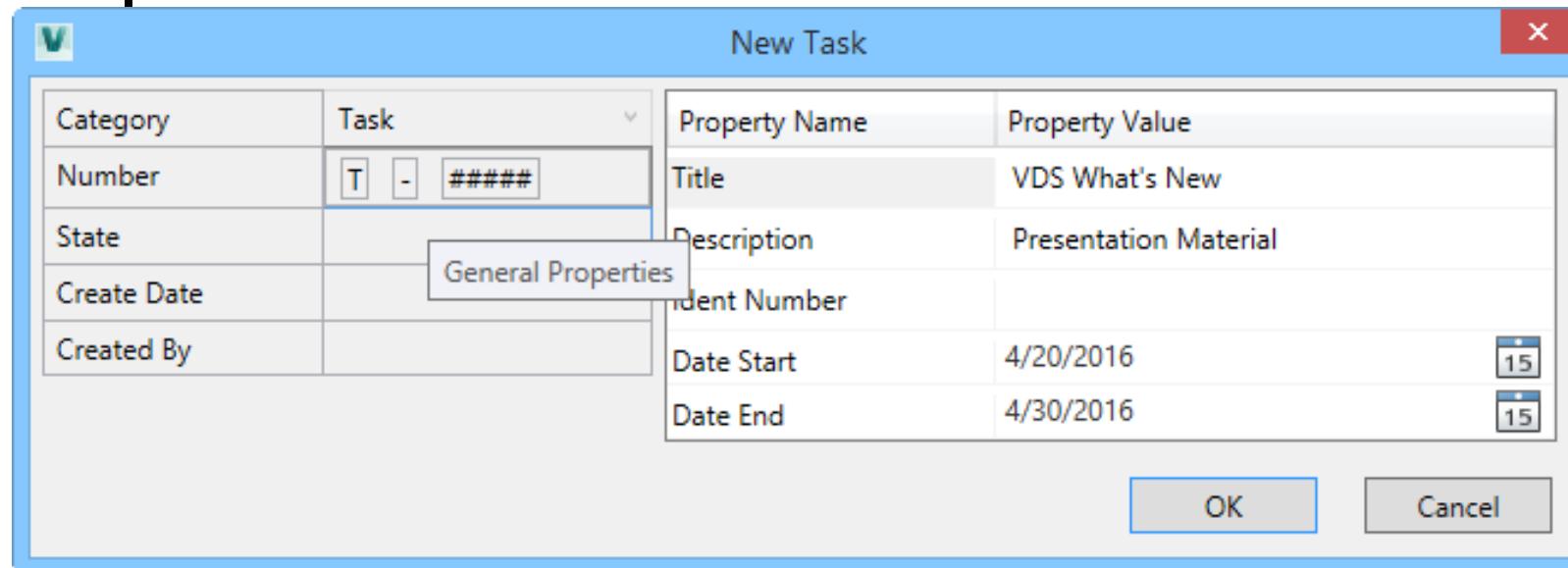
# Folder / Project Numbering | Video



# VDS 2017 – Vault | Custom Object Numbering

## Concept

- Numbering Scheme = Custom Object Def Name
- Enable | Disable



# Addendum – Technical Details

# VDS 2017 | Menu File Format

## XML to support

- Multilanguage Definitions
- Unicode Names

```
<mymenu>
  <MenuItem>
    <NewTask Label="$UIString[MNU22]" Description="$UIString[MNU17]" Hint="$UIString[MNU18]" PSFile="CreateCustomObject.ps1"
             Image="NewCustomObject.ico" ToolbarPaintStyle="TextAndGlyph" NavigationTypes="$UIString[MNU23]" MultiSelectEnabled="True" />
    <EditTask Label="$UIString[MNU21]" Description="$UIString[MNU19]" Hint="$UIString[MNU20]" PSFile="EditCustomObject.ps1"
              Image="EditCustomObject.ico" ToolbarPaintStyle="TextAndGlyph" NavigationTypes="Task" MultiSelectEnabled="False" />
    <NewFile Label="$UIString[MNU1]" Description="$UIString[MNU11]" Hint="$UIString[MNU7]" PSFile="CreateFile.ps1"
             Image="NewStandardFile.ico" ToolbarPaintStyle="TextAndGlyph" NavigationTypes="File,Folder"
             MultiSelectEnabled="False" />
    <EditFile Label="$UIString[MNU2]" Description="$UIString[MNU12]" Hint="$UIString[MNU8]" PSFile="EditFile.ps1" />
  </MenuItem>
</mymenu>
```

# VDS 2017 | Menu File Format

## Vault Explorer – Start Up | Menu Load

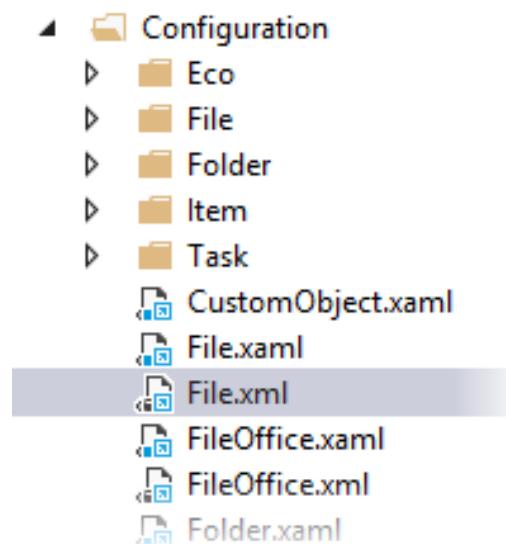
- Error Handling
- Messages

```
<!-- New 2017 -->
<UIString ID="MSG6">More than one entry found for menu item {0}. Please correct the MenuDefin
<UIString ID="MSG7">The label attribute for the menu item {0} could not be found. Please corre
<UIString ID="MSG8">The PS1File attribute for the menu item {0} could not be found. Please cor
<UIString ID="MSG9">The Location attribute for the command site {0} could not be found. Please
<!--Messages used in AutoCAD.cfg and Inventor.cfg-->
```

# VDS 2017 | Template Structure – File.XML

DocTypeData Node externalized to

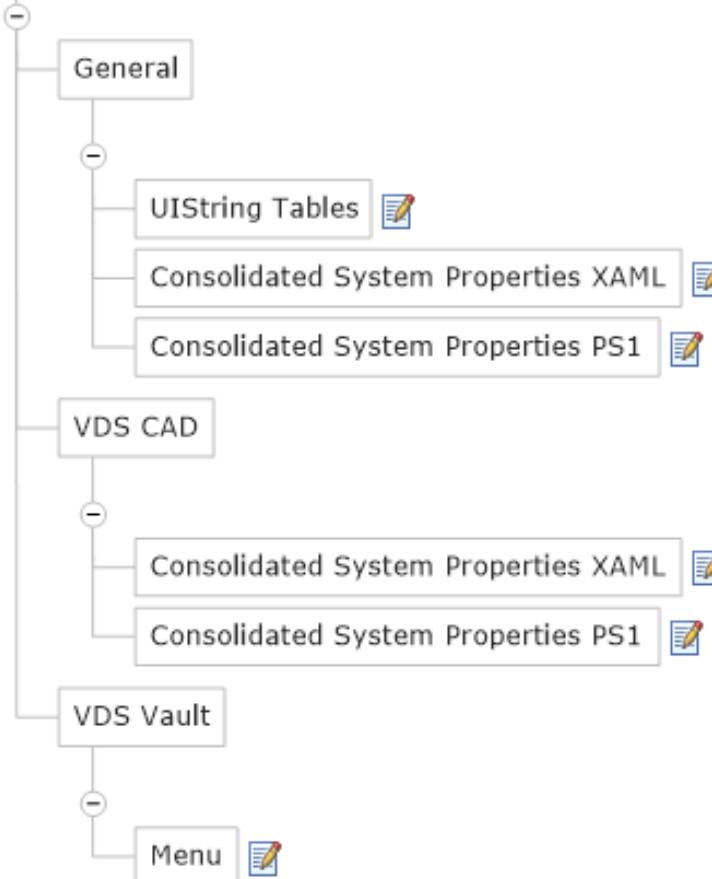
- File.xml
- FileOffice.xml



```
<?xml version="1.0" encoding="utf-8" ?>
<DocTypeData xmlns="">
  <DocTypeInfo>
    <DocName>Inventor</DocName>
    <Path>$/Templates/Inventor</Path>
  </DocTypeInfo>
  <DocTypeInfo>
    <DocName>AutoCAD Drawings</DocName>
    <Path>$/Templates/AutoCAD</Path>
  </DocTypeInfo>
  <DocTypeInfo>
    <DocName>Office Document</DocName>
    <Path>$/Templates/Office</Path>
  </DocTypeInfo>
</DocTypeData>
```

# VDS 2017 | Consolidated System Properties

## WN Technical Details VDS 2017



## Consolidated System Properties PS1

```
Entity Type "FILE"  
$Prop["_FileName"].Value  
$Prop["_FilePath"].Value  
$Prop["_FileExt"].Value  
$Prop["_CreateMode"].Value  
$Prop["_EditMode"].Value  
$Prop["_ReadOnly"].Value  
$Prop["_Category"].Value  
$Prop["_NumSchm"].Value  
  
Entity Type "FOLDER"  
$Prop["_Category"].Value  
$Prop["_CreateMode"].Value  
$Prop["_EditMode"].Value  
$Prop["_FolderPath"].Value  
$Prop["_FolderName"].Value  
$Prop["_ReadOnly"].Value  
$Prop["_NumSchm"].Value  
  
Entity Type "CustomObject"  
$Prop["_CustomObjectDefName"].Value  
$Prop["_CustomObjectName"].Value  
$Prop["_Category"].Value  
$Prop["_CreateMode"].Value  
$Prop["_EditMode"].Value  
$Prop["_ReadOnly"].Value  
$Prop["_NumSchm"].Value
```

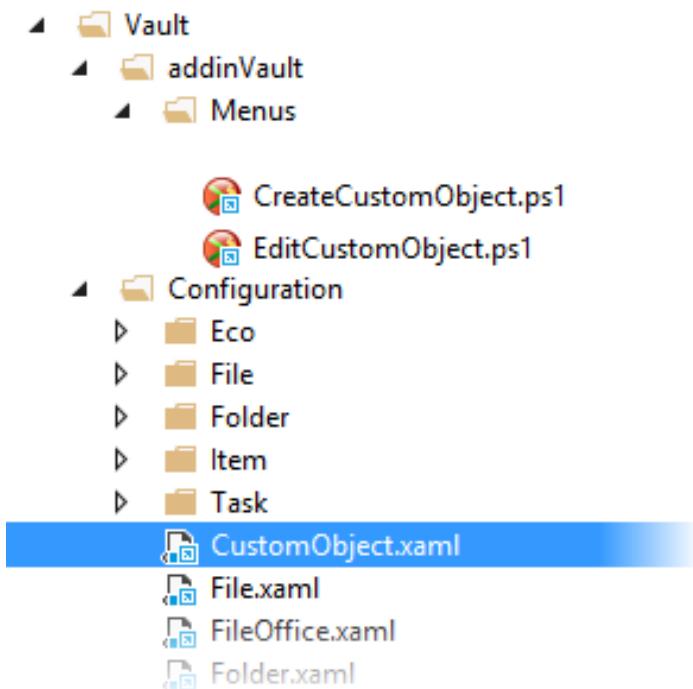
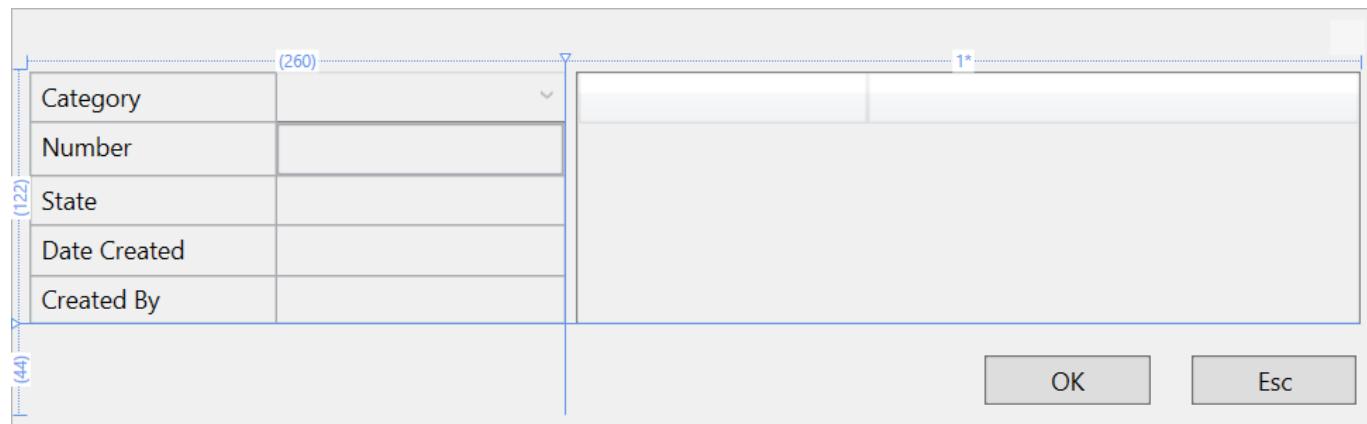
## Consolidated System Properties PS1

```
Accessible Properties in CAD Dialog Context:  
$Prop["_Category"].Value  
$Prop["_HasBOM"].Value  
$Prop["_WorkspacePath"].Value  
$Prop["_VaultVirtualPath"].Value  
$Prop["_CreateMode"].Value  
$Prop["_NotCreateMode"].Value  
$Prop["_EditMode"].Value  
$Prop["_NotEditMode"].Value  
$Prop["_CopyMode"].Value  
$Prop["_SaveCopyAsMode"].Value  
$Prop["_FileName"].Value  
$Prop["_FilePath"].Value  
$Prop["_FileExt"].Value  
$Prop["_OriginalFileName"].Value  
  
$Prop["PathAndFileNameHandler.EXT"].Value  
$Prop["PathAndFileNameHandler.FileName"].Value  
$Prop["PathAndFileNameHandler.FileNameNoExtension"].Value  
$Prop["PathAndFileNameHandler.FullName"].Value  
$Prop["PathAndFileNameHandler.OriginalFileName"].Value  
$Prop["PathAndFileNameHandler.OriginalFullName"].Value  
$Prop["PathAndFileNameHandler.Path"].Value
```

# VDS 2017 | Dialog Template – Custom Object

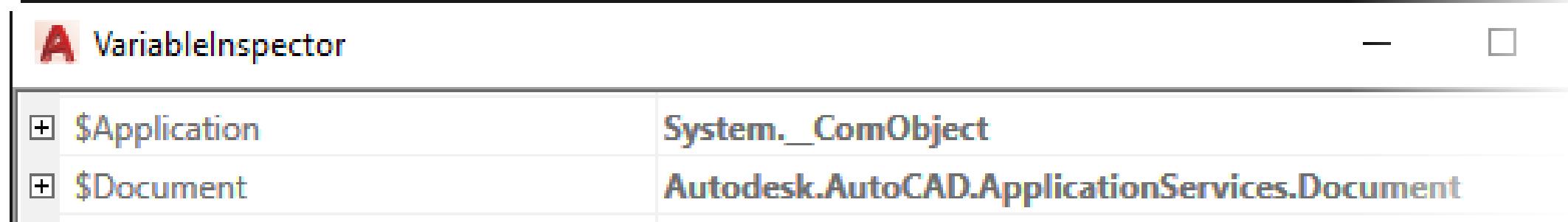
One Single Neutral Template allows

- Copy & Paste for new ones
- Add Menu
- ✓ Done



# VDS 2017 – CAD | Application / Document Objects

- AutoCAD and Inventor Objects available
  - \$Application
  - \$Document



# Issues Fixed

# VDS – CAD | Folder Selection – ACL

- Issue: Folders with ACL applied are listed in breadcrumb folder tree
- ✓ Solution: Folder listing added filter based on Vault “cloaked” (user accessible) property.

## VDS – CAD | Folder Selection – ACL

- Issue: VDS for CAD - ValidatedBinding not validated on save event
- ✓ Solution: systematic change added capability to validate during runtime (created/edit) and on save event

## VDS – Vault | Template Selection – ACL

- Issue: Templates with ACL / object security applied are not filtered for new file...
- ✓ Solution: VDS template list returns filtered listing according user's file access

# VDS – Vault | Custom Command – Restrictions

- Issue: "Umlaut" / special characters not allowed in mymenu.mnu file
- ✓ Menu definition changed to XML format and supports Unicode characters.

