

# Hitchhiker's Guide to Property Management

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# Assumptions

- Have a basic understanding of Property Administration
- Class primarily aimed at Vault Administrators
- Main focus of class is File Properties

# Class summary

## Property Management

- Property Administration
- Using Properties
- Property Compliance
- Indexing Properties

# Handout

- Covers everything discussed in this presentation
- Contains more detailed information
- ePub format available

# Key learning objectives

At the end of this class, you will be able to:

- Have a better understanding of Property Administration
- Have a better understanding of Property Compliance
- Have a better understanding of Property Indexing

# Property Administration

# Property Overview

## Types of Property

- System
- User Defined

## Supported Data Types

- Text
- Number
- Boolean
- Date

# Property Overview

## Supported Objects:

- Files
- Items
- Folders
- Change Orders
- Custom Objects
- Reference Designators

## Also Support for:

- BOM Properties
- Change Order Link Properties

## For more on BOM Properties:

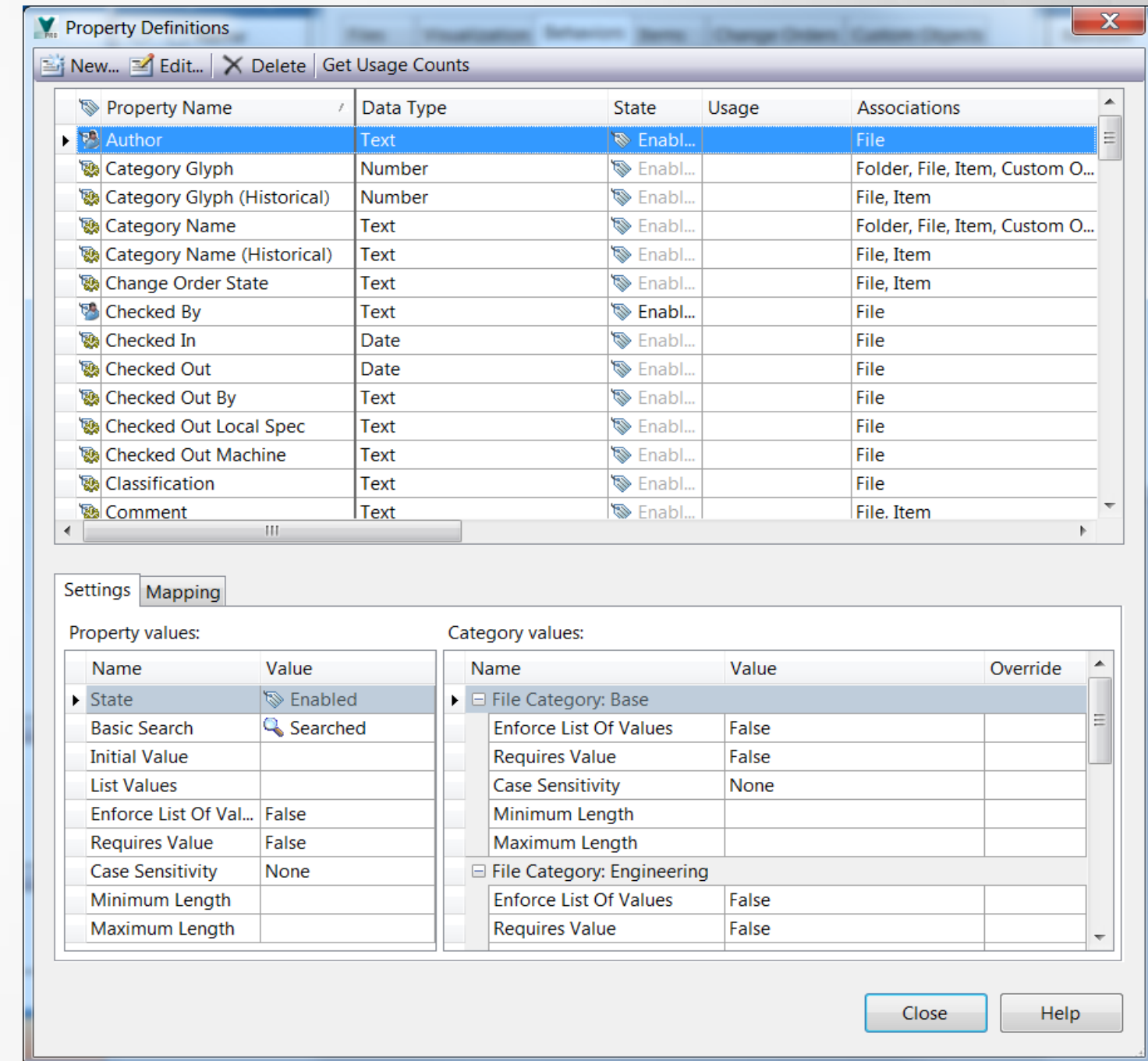
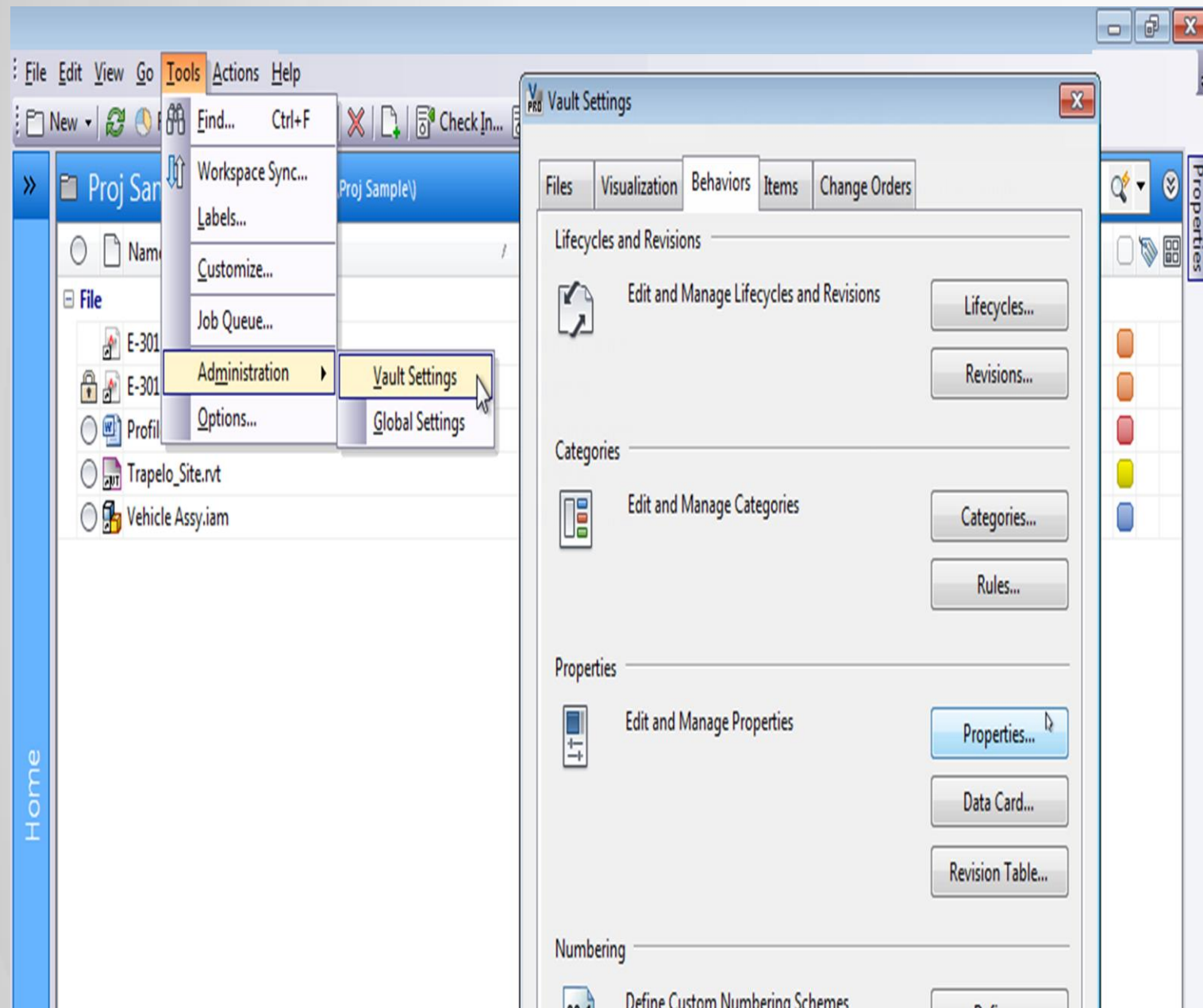
Class PL6547 - All You Want to Know About Items in Vault Professional

Taught by William Schwerin and Anil Chintamanen

Thursday Dec 4, 10:00 AM - 11:30 AM



# Property Administration



# Property Creation

- Only User Defined Properties (UDPs) can be created
- Category Association automatically adds Property to a File
- No category Association – user must add Property manually to a File

New (Property)

Name: UDP XYZ

Type: Text

Associations: File

Settings Mapping

Property values:

Name	Value
State	Enabled
Basic Search	Searched
Initial Value	
List Values	
Enforce List ...	False
Requires Value	False
Case Sensitivi...	None
Minimum Le...	
Maximum Le...	

Category values:

Name	Value	Override
File Category: Base		
Enforce List Of Values	False	
Requires Value	False	
Case Sensitivity	None	
Minimum Length		
Maximum Length		
File Category: Engineering		
Enforce List Of Values	False	
Requires Value	False	
Case Sensitivity	None	
Minimum Length		
Maximum Length		

OK Cancel Help

# Property Settings

## Basic Settings

- State
- Basic Search
- Initial value

Static, Mapped

- List Values

Text, Number Data Types

Edit (User Defined) - UDP XYZ

Name: UDP XYZ

Type: Text

Associations: File

Settings Mapping

Property values:

Name	Value
State	Enabled
Basic Search	Searched
Initial Value	
List Values	
Enforce List Of Values	False
Requires Value	False
Case Sensitivity	None
Minimum Length	
Maximum Length	

Category values:

Name	Value	Override
File Category: Base		
Enforce List Of Values	False	
Requires Value	False	
Case Sensitivity	None	
Minimum Length		
Maximum Length		
File Category: Engineering		
Enforce List Of Values	False	
Requires Value	True	✓
Case Sensitivity	None	
Minimum Length		
Maximum Length		

OK Cancel Help

# Property Policy Settings

- Enforce List of Values
- Requires Value
- Case Sensitivity
- Minimum Length
- Maximum Length
- Override by Category
- Used in Property Compliance evaluation - Policy

The screenshot shows a software dialog box titled "Edit (User Defined) - UDP XYZ". It contains several input fields and two tabbed sections for settings.

Fields at the top:

- Name: UDP XYZ
- Type: Text
- Associations: File

Two tabs are visible: "Settings" and "Mapping". The "Settings" tab is active.

The "Settings" tab contains two tables:

**Property values:**

Name	Value
State	Enabled
Basic Search	Searched
Initial Value	
List Values	
Enforce List Of Values	False
Requires Value	False
Case Sensitivity	None
Minimum Length	
Maximum Length	

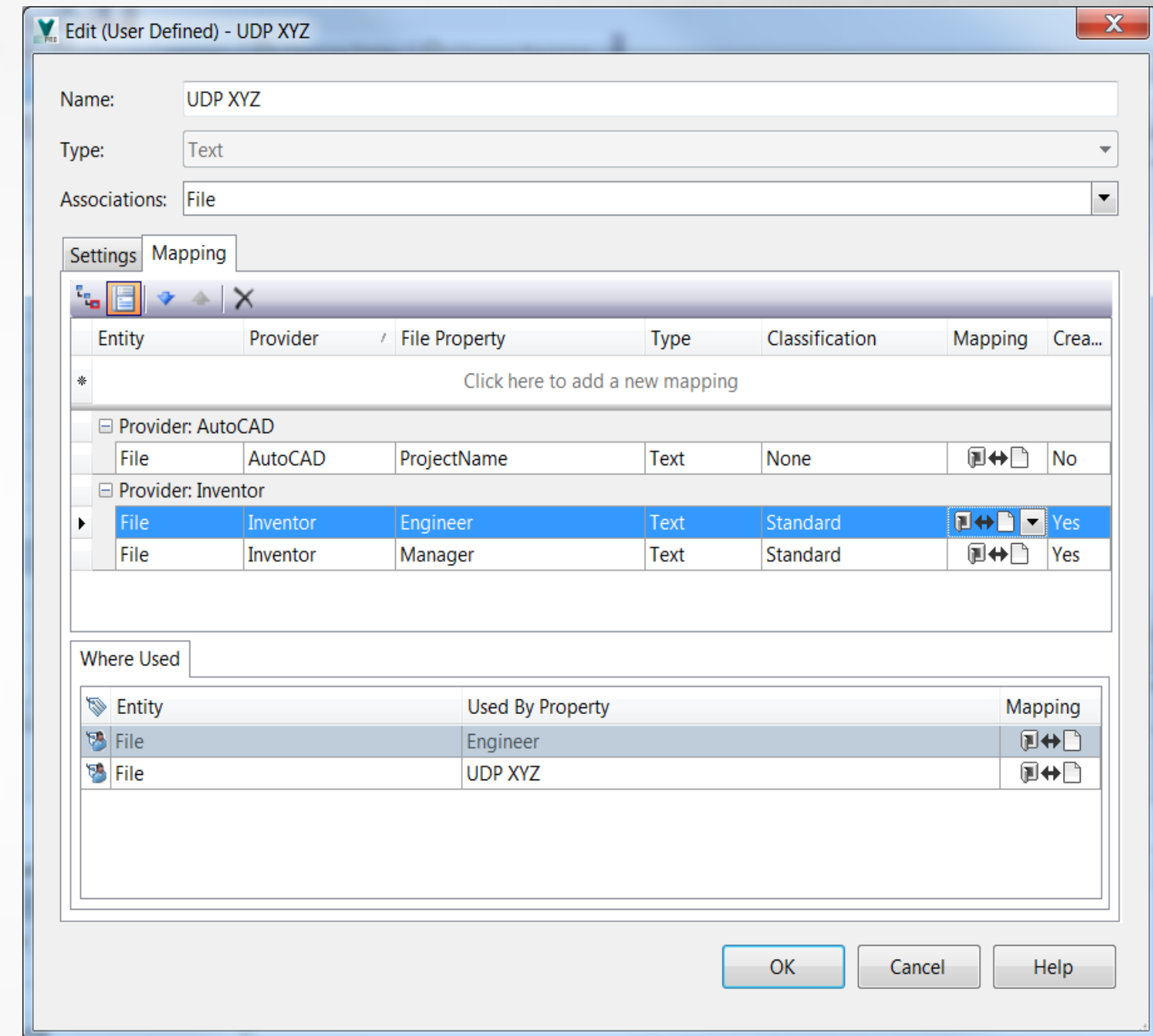
**Category values:**

Name	Value	Override
File Category: Base		
Enforce List Of Values	False	
Requires Value	False	
Case Sensitivity	None	
Minimum Length		
Maximum Length		
File Category: Engineering		
Enforce List Of Values	False	
Requires Value	True	<input checked="" type="checkbox"/>
Case Sensitivity	None	
Minimum Length		
Maximum Length		

At the bottom of the dialog are three buttons: OK, Cancel, and Help.

# Property Mappings

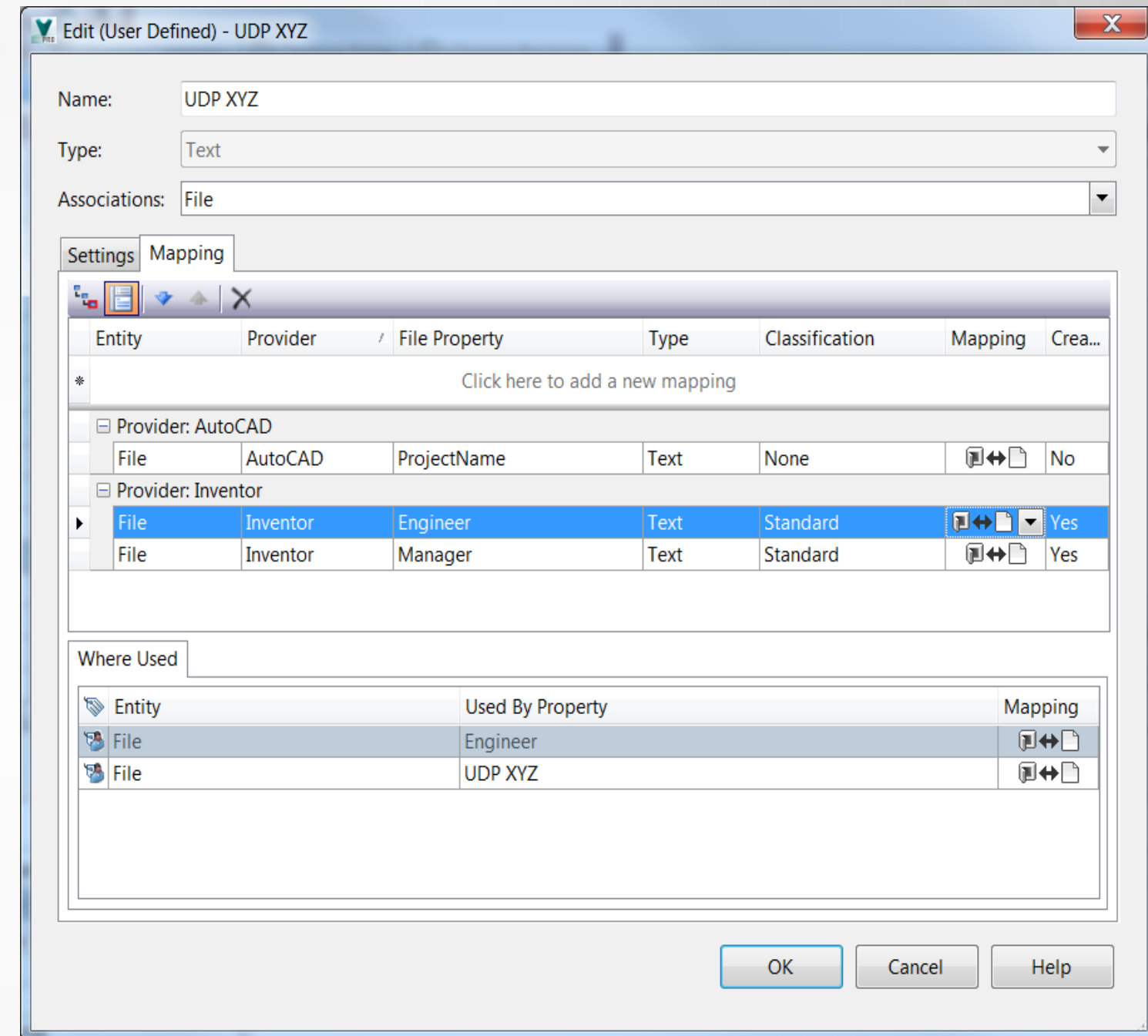
- Create the required Read and Write Mappings
  - ← Read Only
  - Write Only
  - ↔ Read & Write (default)
- UDP mapped to a File Property
- File properties extracted from a file on disk or from the vault





# Content Providers

- “Provide” the File Properties used for mappings
- Write Mapping enabled if Provider supports write back
- Pre-Configured Providers installed:  
AutoCAD, Inventor, Office, Revit, etc.
- Ifilter used if no Provider



# Property Mappings

- Mappings are listed in “Read” Priority Order

- Read Mappings processed in priority order

Engineer->Manager  
if no value

Initial Value Mapping\*

Initial Value\*

\*only used for initial creation

The screenshot shows the 'Edit (User Defined) - UDP XYZ' dialog box. The 'Name' field is 'UDP XYZ', 'Type' is 'Text', and 'Associations' is 'File'. The 'Mapping' tab is active, displaying a table of mappings. The table has columns: Entity, Provider, File Property, Type, Classification, Mapping, and Crea... (Create). There are two providers: AutoCAD and Inventor. Under AutoCAD, there is one mapping for 'File' with 'ProjectName' as the file property, 'Text' type, 'None' classification, and 'No' for creation. Under Inventor, there are two mappings for 'File': one for 'Engineer' with 'Text' type, 'Standard' classification, and 'Yes' for creation; and another for 'Manager' with 'Text' type, 'Standard' classification, and 'Yes' for creation. The 'Engineer' mapping is selected. Below the table is a 'Where Used' section with a table showing where the property is used. It has columns: Entity, Used By Property, and Mapping. It shows two entries: 'File' used by 'Engineer' and 'File' used by 'UDP XYZ'. At the bottom are 'OK', 'Cancel', and 'Help' buttons.

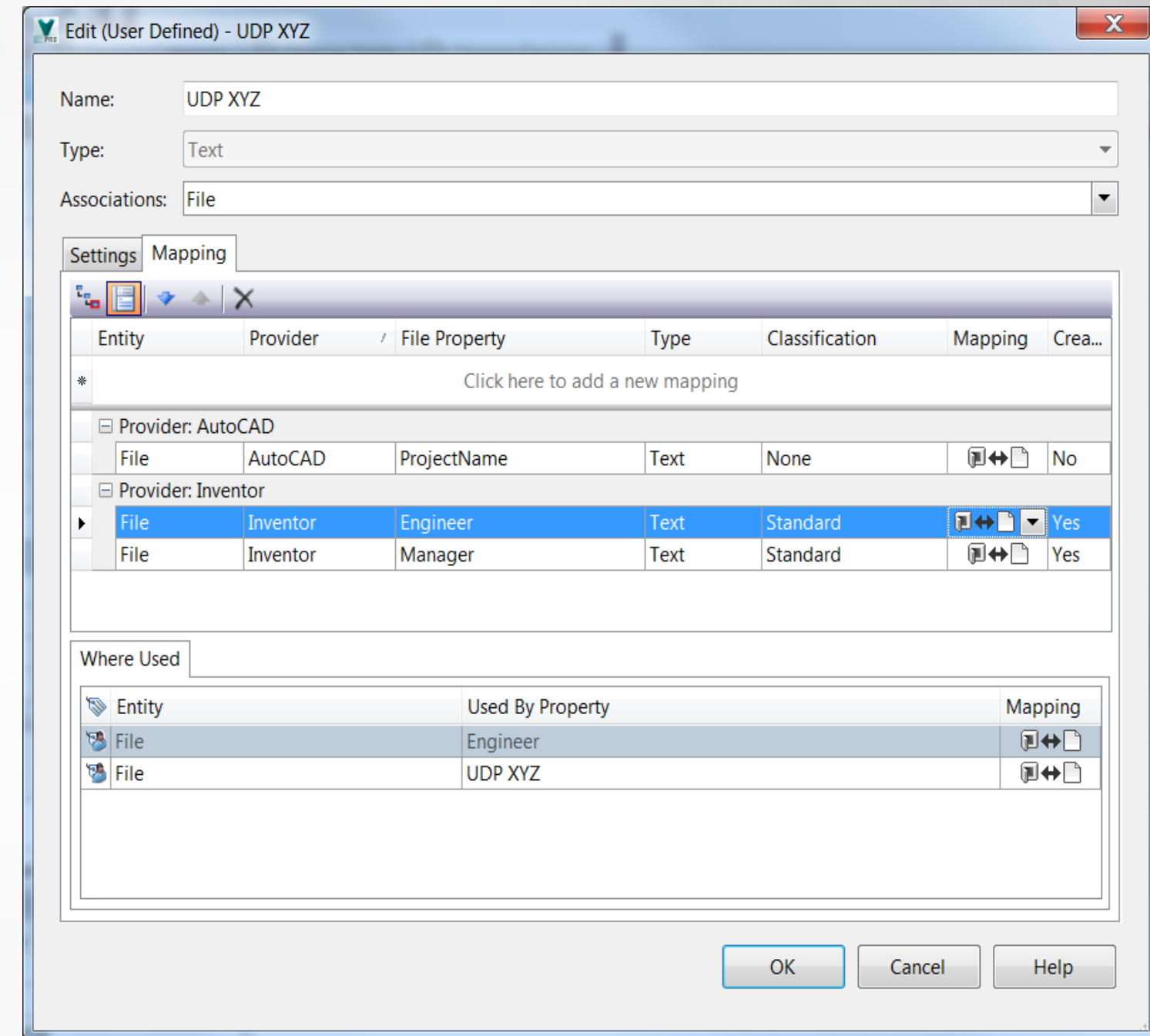
Entity	Provider	File Property	Type	Classification	Mapping	Crea...
* Click here to add a new mapping						
Provider: AutoCAD						
File	AutoCAD	ProjectName	Text	None		No
Provider: Inventor						
File	Inventor	Engineer	Text	Standard		Yes
File	Inventor	Manager	Text	Standard		Yes

Entity	Used By Property	Mapping
File	Engineer	
File	UDP XYZ	

# Property Mappings

- Where Used displays the Write Mappings for the selected File Property
- Mappings are listed in “Write” Priority Order
- Create Option only for Write Mappings





# Property Mappings

- Used in Property Compliance evaluation
  - Equivalence Compliance
  - Both Read and Write Mappings are evaluated

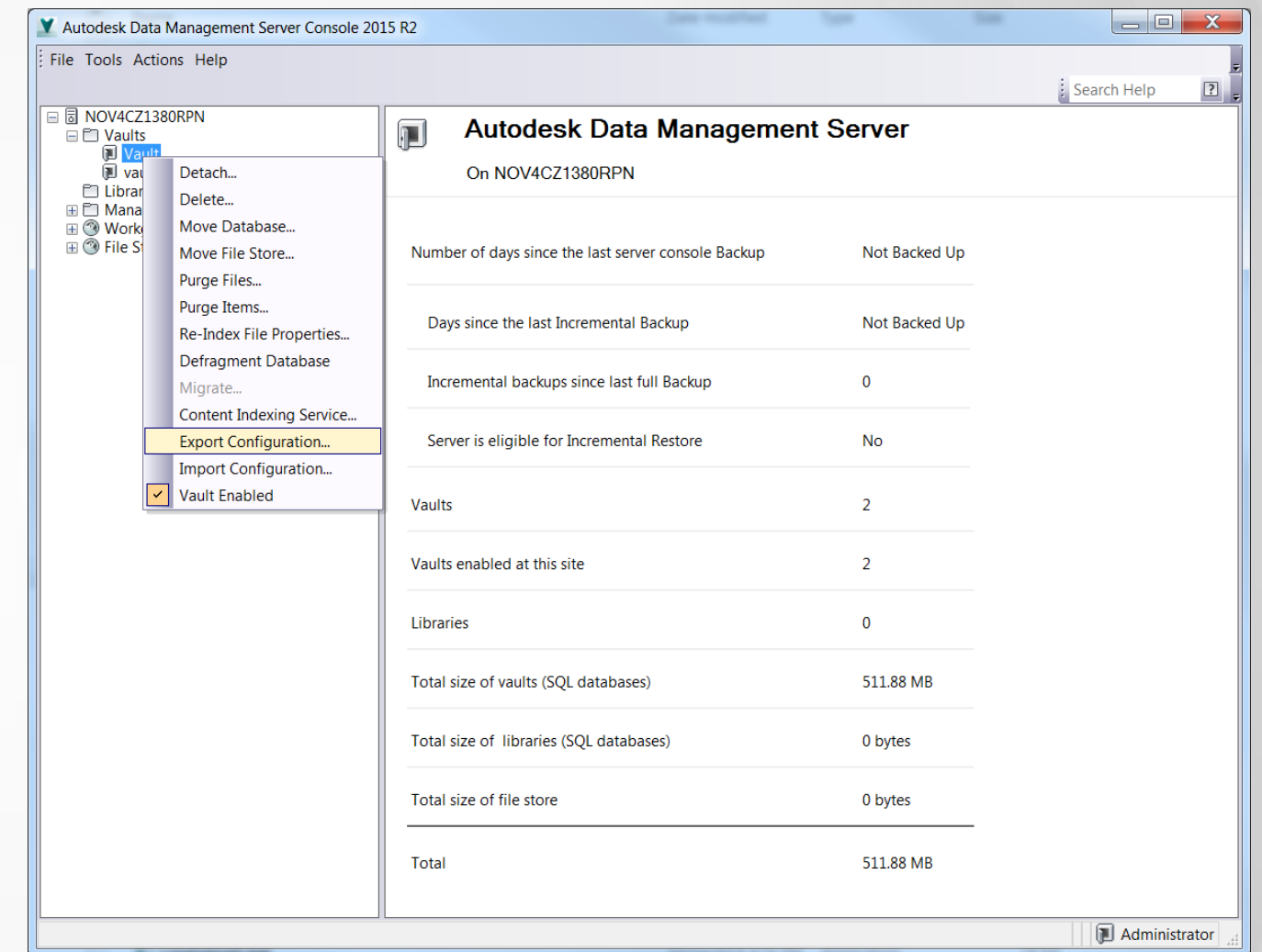
# Export/Import Property Definitions

## Export Vault Configuration

- Exports Property Definitions
- Includes Settings and Mappings
- Exports the other behaviors

## Import Vault Configuration

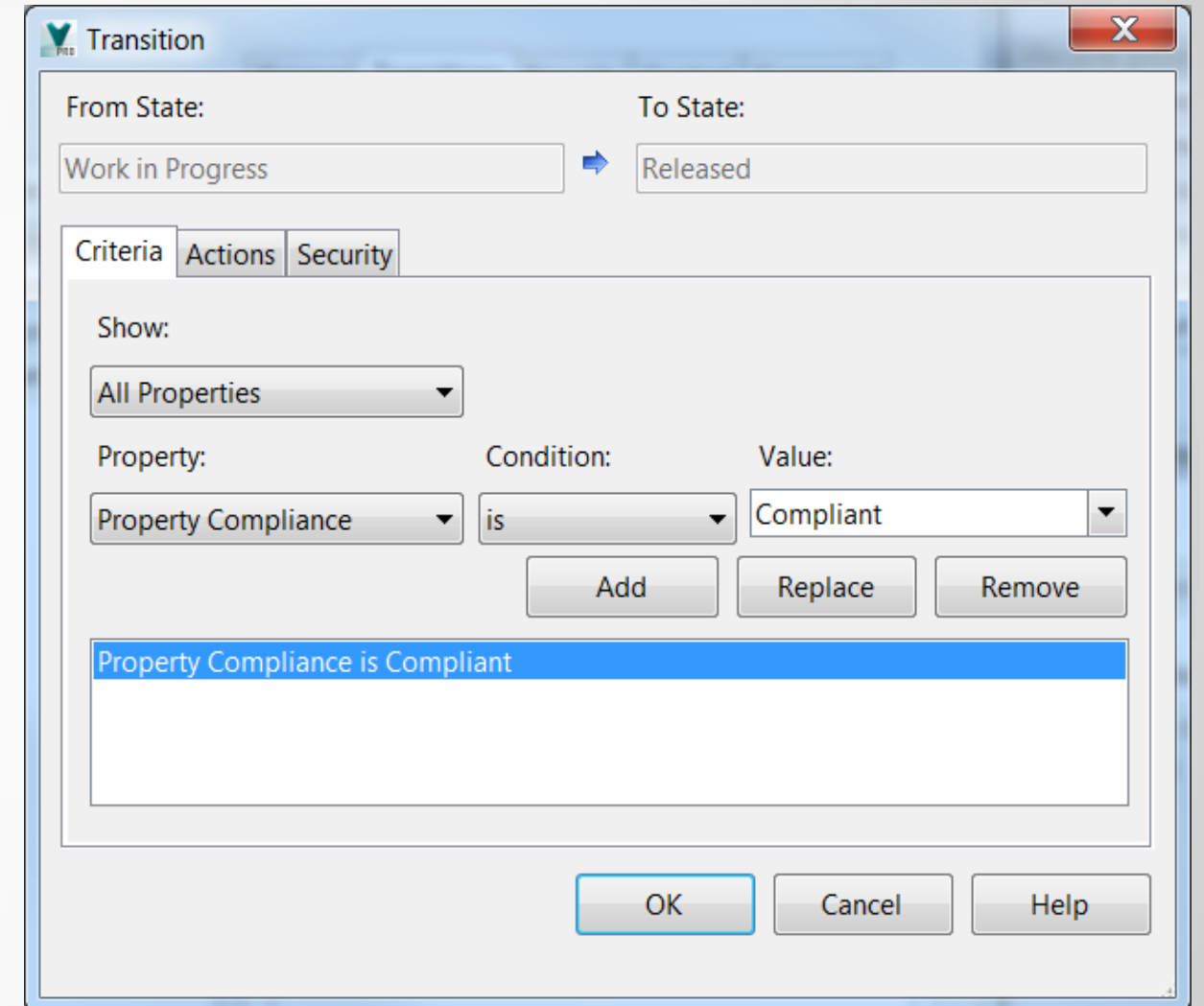
- Imports Property Definitions
- Includes Settings and Mappings
- Imports the other behaviors



# Using Properties

# Property Usage

- Basic Search
- Advanced Search
- Data Card Configuration
- Category Assignment Rules
- Life Cycle State Transition Criteria Rules



The screenshot shows a 'Transition' dialog box with a title bar containing a close button (X). The dialog is divided into two main sections: 'From State:' and 'To State:'. The 'From State:' field contains 'Work in Progress' and the 'To State:' field contains 'Released', with a blue arrow pointing from the first to the second. Below these fields are three tabs: 'Criteria' (selected), 'Actions', and 'Security'. Under the 'Criteria' tab, there is a 'Show:' dropdown menu set to 'All Properties'. Below this are three dropdown menus: 'Property:' set to 'Property Compliance', 'Condition:' set to 'is', and 'Value:' set to 'Compliant'. To the right of these dropdowns are three buttons: 'Add', 'Replace', and 'Remove'. Below these buttons is a list box containing the text 'Property Compliance is Compliant', which is currently selected. At the bottom of the dialog are three buttons: 'OK', 'Cancel', and 'Help'.

# What happens when a File is added

- Indexed and Properties extracted
- Read Mappings, Initial Values are applied to all UDPs
- Assigned a Category based on category assignment rules
- Adds UDPs by associated with this Category
- Property Compliance is evaluated on the file's properties
- Search Indexes built (in background)

# Property Administration Demo

# Property Compliance

# Policy Compliance

- Policy configured in Settings section of Property Definition
- Evaluated for Files, Items, Folders and Custom Objects
- If in violation, a warning symbol adjacent to this property value will be displayed

The screenshot shows a dialog box titled "Edit (User Defined) - UDP XYZ". It has a "Name" field with "UDP XYZ", a "Type" dropdown set to "Text", and an "Associations" dropdown set to "File". Below these are two tabs: "Settings" and "Mapping". The "Settings" tab is active, showing two tables: "Property values" and "Category values".

Name	Value
State	Enabled
Basic Search	Searched
Initial Value	
List Values	
Enforce List Of Values	False
Requires Value	False
Case Sensitivity	None
Minimum Length	
Maximum Length	

Name	Value	Override
File Category: Base		
Enforce List Of Values	False	
Requires Value	False	
Case Sensitivity	None	
Minimum Length		
Maximum Length		
File Category: Engineering		
Enforce List Of Values	False	
Requires Value	True	✓
Case Sensitivity	None	
Minimum Length		
Maximum Length		

At the bottom are "OK", "Cancel", and "Help" buttons.



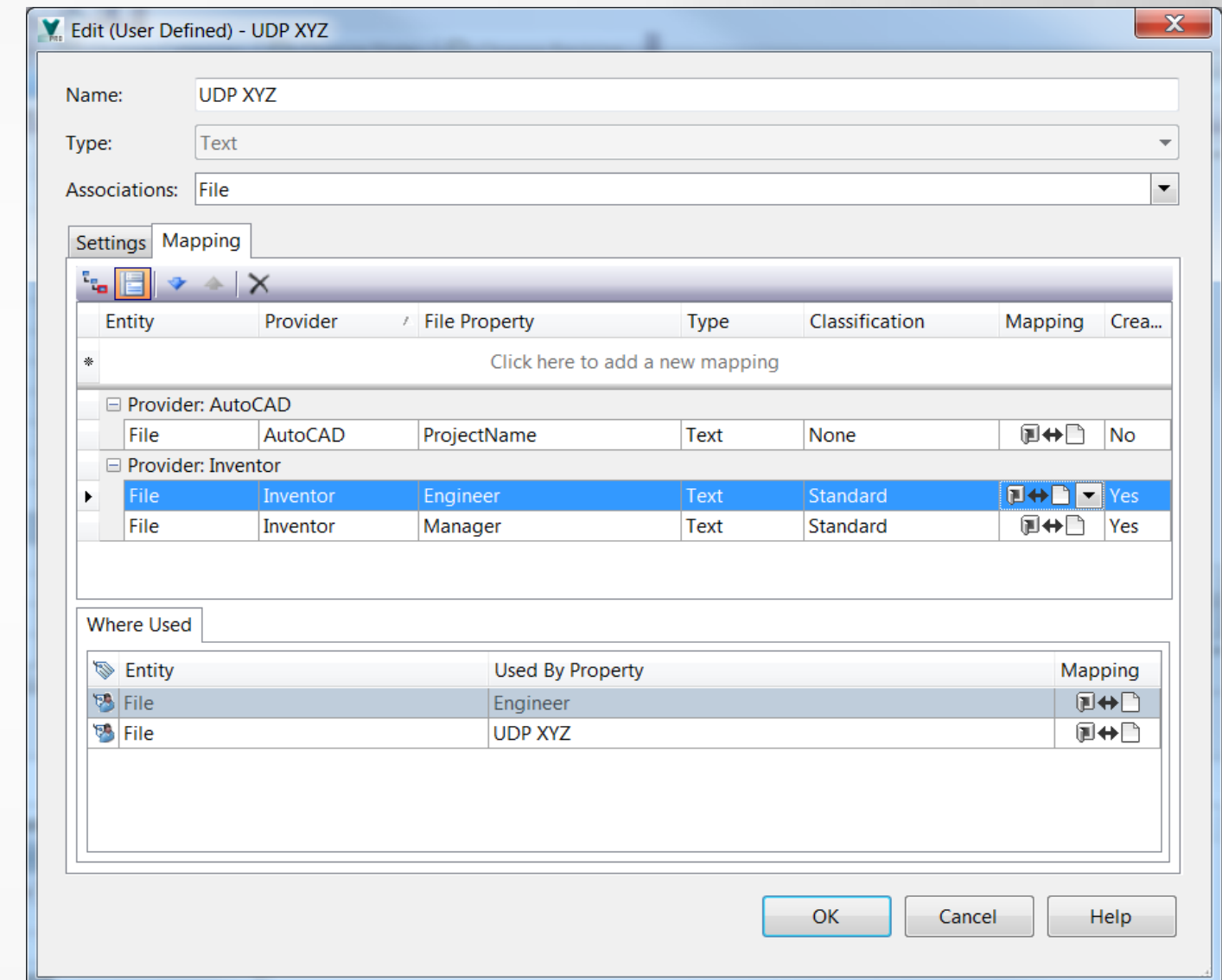
# Equivalence Compliance

- Evaluated for Files only
- Equivalence ensures that the derived File Property and UDP values match
- Both Read and Write Mappings are evaluated
- If in violation, a warning symbol adjacent to this property value will be displayed

# Equivalence Compliance

## Read Mappings

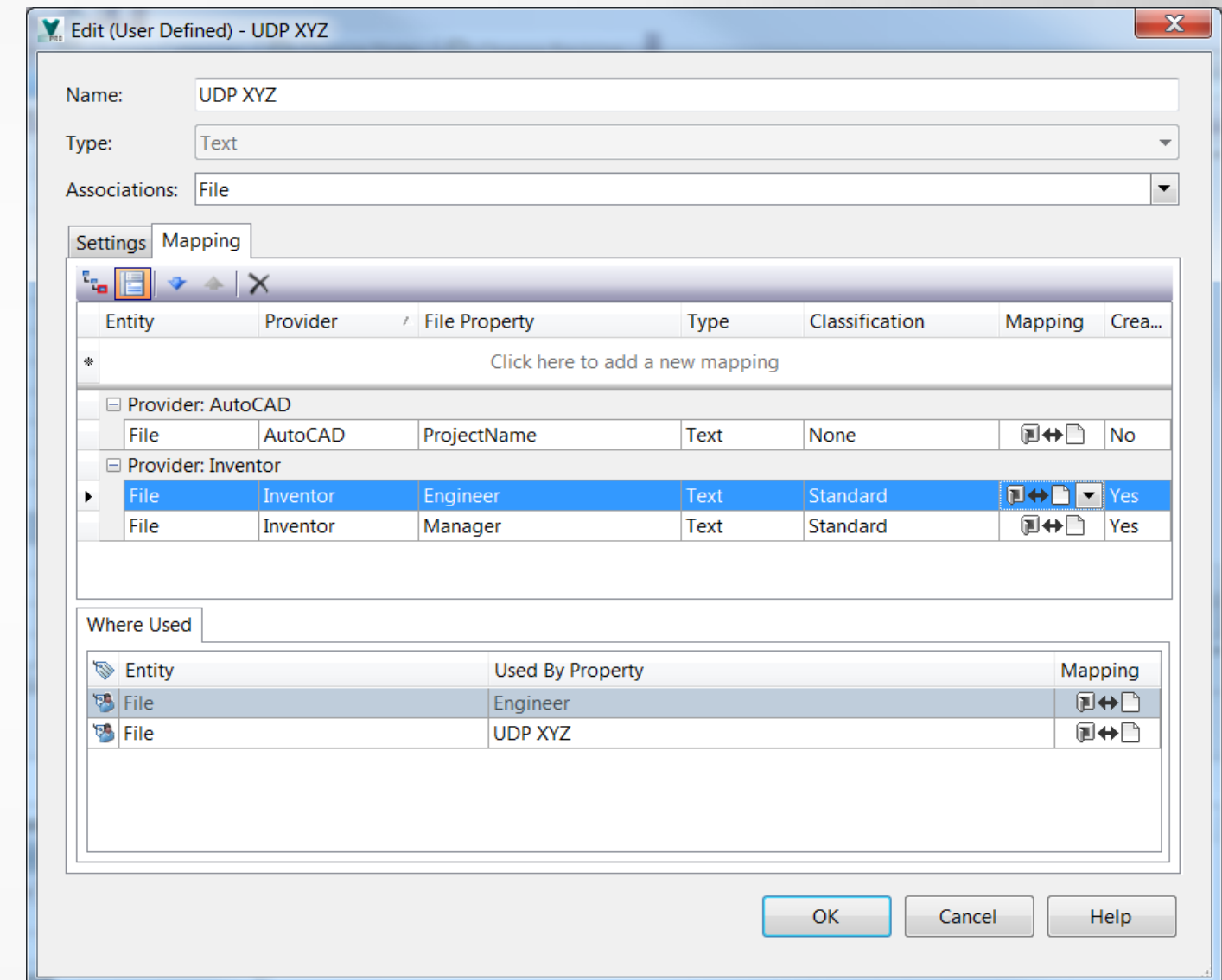
- Provider Property Mappings processed in priority order  
Engineer-> Manager
- If no value, the empty value is used
- This is then compared against the UDP value (UDP XYZ)



# Equivalence Compliance

## Write Mappings

- UDP Mappings processed in priority order  
Engineer-> UDP XYZ
- If no value, the empty value is used
- This is then compared against the File Property (Engineer)



# Equivalence Compliance

## Write Mappings – Use of “Create”

Create = true

- Absence of the property in the file treated as a blank value and compared against the value of the UDP

Create = false

- Equivalence will only be evaluated if file property value exists

Edit (User Defined) - UDP XYZ

Name: UDP XYZ

Type: Text

Associations: File

Settings Mapping

Entity	Provider	File Property	Type	Classification	Mapping	Cre...
Click here to add a new mapping						
Provider: AutoCAD						
File	AutoCAD	ProjectName	Text	None		No
Provider: Inventor						
File	Inventor	Engineer	Text	Standard		Yes
File	Inventor	Manager	Text	Standard		Yes

Where Used


Entity	Used By Property	Mapping
File	Engineer	
File	UDP XYZ	

OK Cancel Help

# When property compliance is evaluated

- Immediately when the changes to an object are committed to Vault.
  - e.g. Add/Check In of a file

## Queued for Evaluation

- Property Definition modified by the user
  - All objects associated with this Property Definition are queued
- Evaluation executed by ADMS Server in the background
- Queued objects will have the Pending icon  displayed

# How to resolve Compliance Violations

## Policy failure

- Edit UDP to be compliant
- Read only Mapping: Modify the File property (or change Policy configuration)

## Equivalence failure:

- Write Mapping Failures: Edit Property or Synchronize Properties
- Read Mapping Failure: Property File Re-Index or next Check In.

# Property Compliance Demo

# Indexing Properties



# Types of Indexing

- Property File Re-Indexing
- Search Indexes
- Full Content Indexing

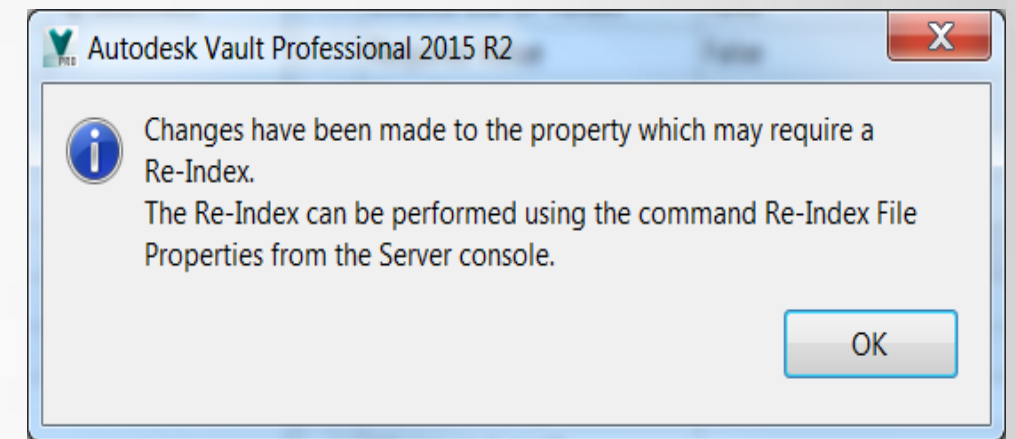
# Property File Re-Index

## When

- A Read Mapping has been added/modified to an existing UDP
- A property with Read Mappings has been re-enabled

These property changes queue a property Compliance check

- number of files can become non-compliant



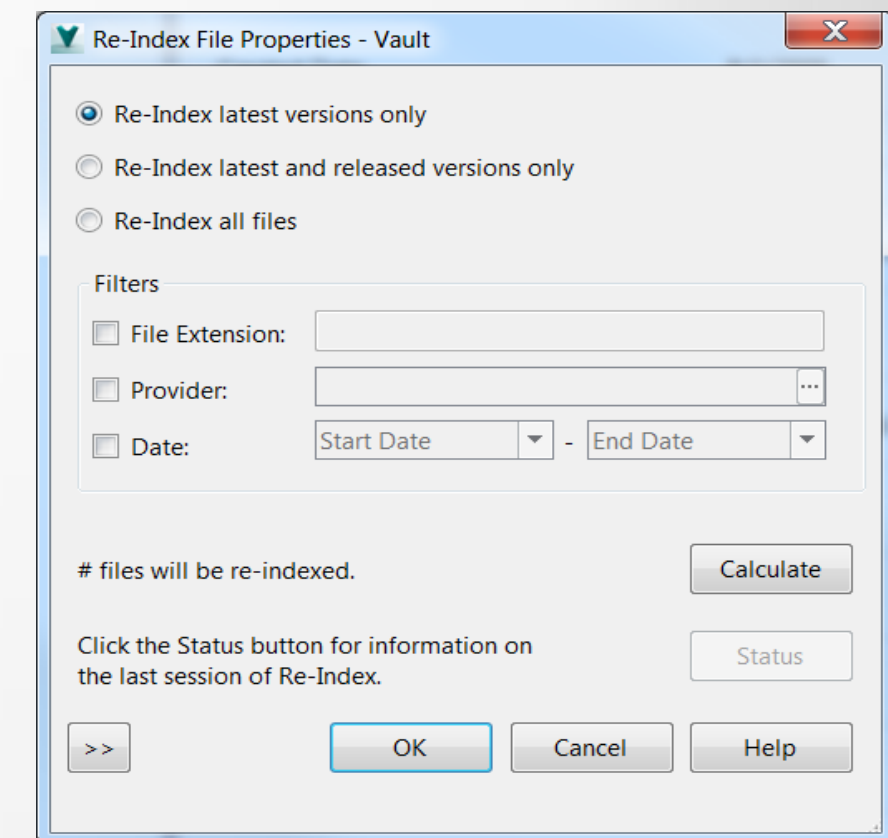
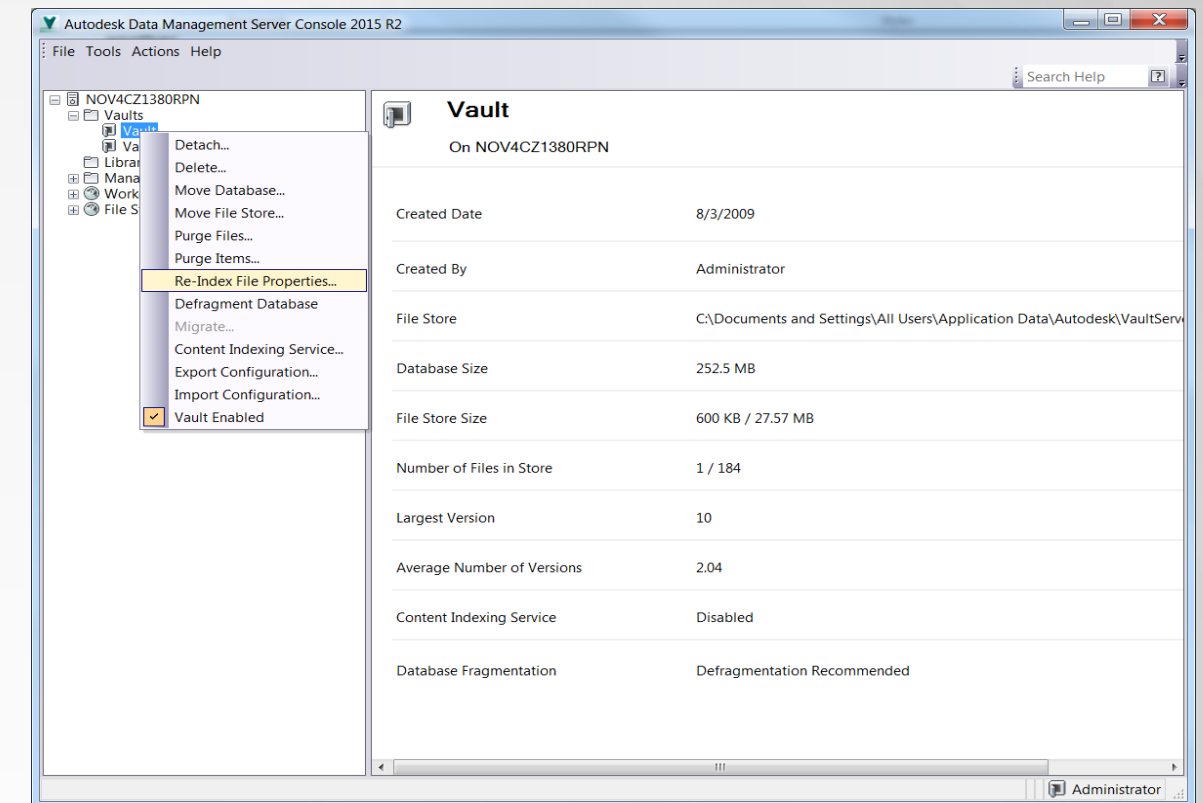
# Property File Re-Index

Executed from within ADMS Console

## What it Does

- Re-applies the Read Mappings and updates the UDP values for each file
- Updates existing versions of the files
- UDPs will become property compliant
- Search indexes built for the property values

A Property File Re-Index does **not add** newly created UDPs



# Property File Re-Index Enhancements in 2013

- Removal of Redundant Re-Indexes
- General Re-Index Performance

Example:

- 1 Million files in the Vault
- Read Mapping added to existing UDP
- UDP only used by 5K files

# Pre-2013 Property File Re-Index

- 1 Million Files will be re-indexed
- Each file is physically re-indexed – file is retrieved from file store and indexed
- File Property table updates for each file (60-80 rows)
- Can take a lot of hours to complete
- Once complete, an administrator can start another Property File Re-Index even if none is required -> the same 1 Million Files will be re-indexed

# 2013-Present Property File Re-Index

- Only files that require a re-index are re-indexed
  - Only 5K files will be re-indexed
  - No redundant re-indexes
- Tip versions make use of the File Property table
  - Tip versions of files are no longer physically re-indexed
  - No File Property table updates
- Once complete, an administrator will be informed that are no files that require a re-index

# Property File Re-Index Enhancements

## Filtering (2013)

- File Extension
- Content Provider
- Date Range

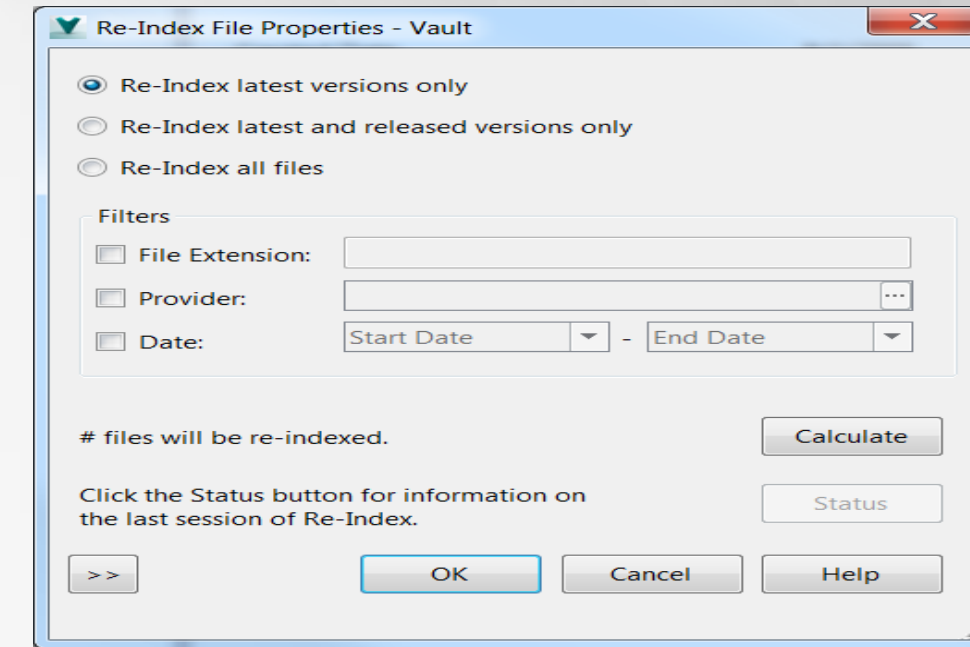
Re-index latest versions only  
(Vault 2015 R2)

The screenshot shows a Windows-style dialog box titled "Re-Index File Properties - Vault". It contains three radio button options: "Re-Index latest versions only" (selected), "Re-Index latest and released versions only", and "Re-Index all files". Below these is a "Filters" section with three checkboxes: "File Extension:" (with an empty text field), "Provider:" (with an empty text field and a dropdown arrow), and "Date:" (with "Start Date" and "End Date" dropdowns separated by a hyphen). At the bottom right, there is a "Calculate" button. Below the "Calculate" button is a "Status" button. At the very bottom, there are four buttons: ">>", "OK", "Cancel", and "Help".

# FORCE option in Property File Re-Index

## Force option (2013):

- Accessed via the >> button
- Forces a Re-Index on the files
- Executes a **physical** re-index
- Typical use is when an Ifilter has been installed
- Use the File Extension filter to limit the number of files





# Property File Re-Index Demo

# Search Indexes

- Properties extracted from the database
- Faster searching in Vault
- Token searches



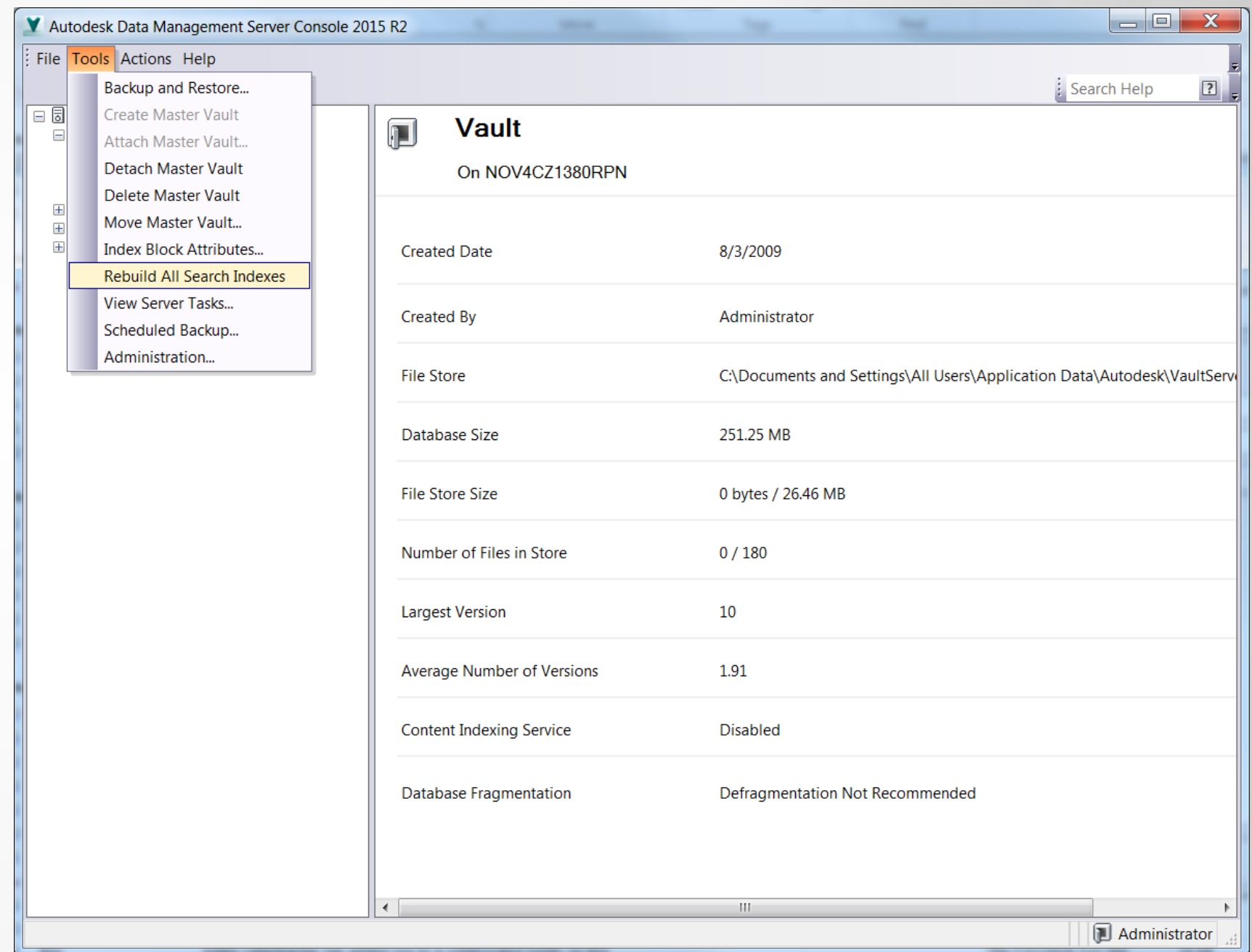
# Search Indexes - Tokens

- Chunks of property values

File name	Token
A-055401-321.ipt	<ul style="list-style-type: none"><li>• A</li><li>• -</li><li>• 055401</li><li>• -</li><li>• 321</li><li>• ipt</li></ul>
Great White Shark.doc	<ul style="list-style-type: none"><li>• Great</li><li>• White</li><li>• Shark</li><li>• doc</li></ul>
Gr8work.xls	<ul style="list-style-type: none"><li>• Gr</li><li>• 8</li><li>• work</li><li>• xls</li></ul>

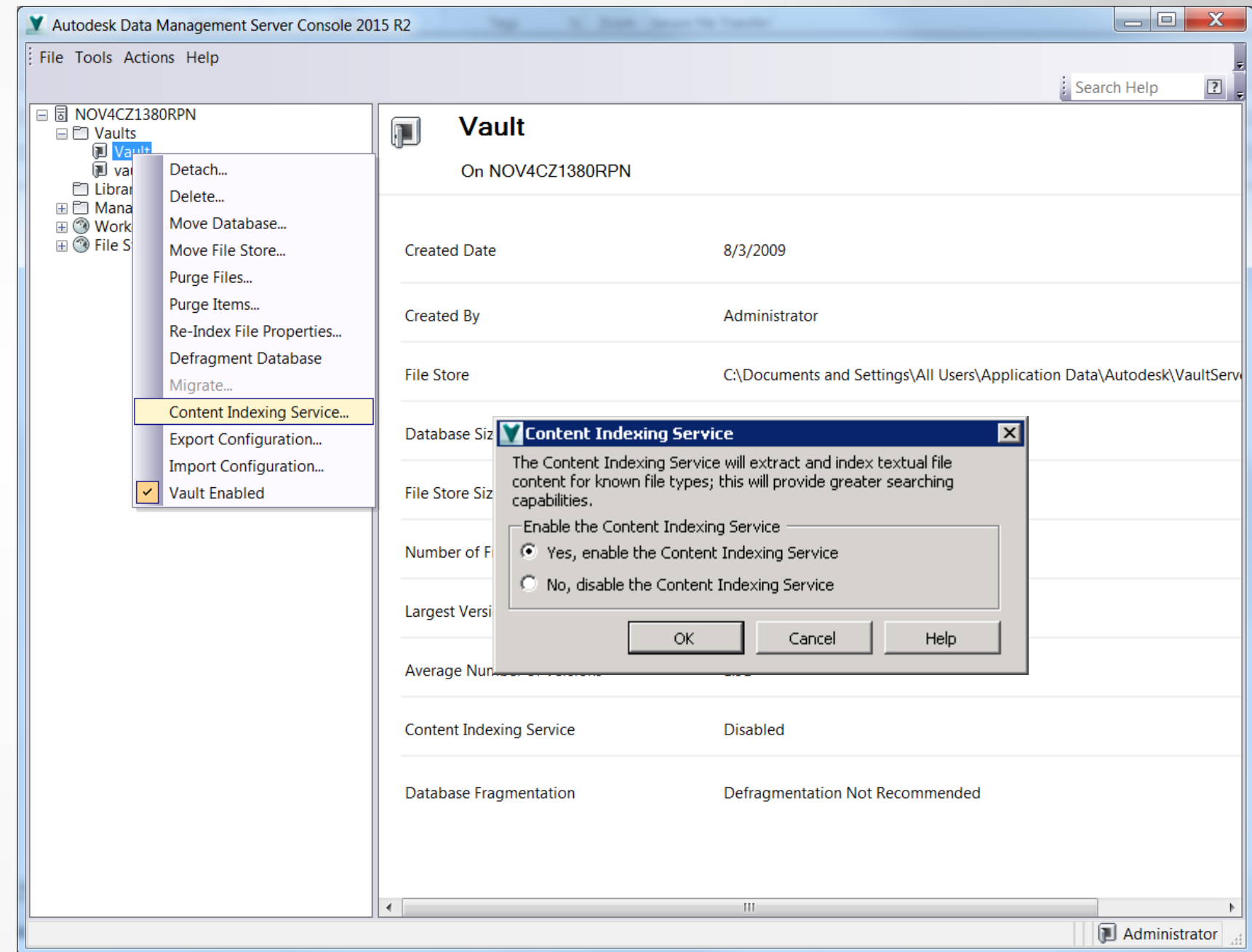
# Rebuild Search Indexes

- Not the same as Rebuild Property Indexes
- Maintenance ran automatically
- Run per site basis



# Content Indexing

- Extracts the full text contents from existing files
- Added to Lucene
- Enabled per Vault



# Summary

- Better understanding of Property Administration
- Better understanding of Property Compliance
- Better understanding of Property Indexing

# Q & A

# Session Feedback

- Via the Survey Stations, email or mobile device
- AU 2014 passes given out each day!
- Best to do it right after the session
- Instructors see results in real-time





