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Ingenuity for life
#SEU 2016
Welcome!
Solid Edge University 2016
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Realize innovation.

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Ingenuity for life
#SEU16
Solid Edge Unmanaged
Greg Baldwin
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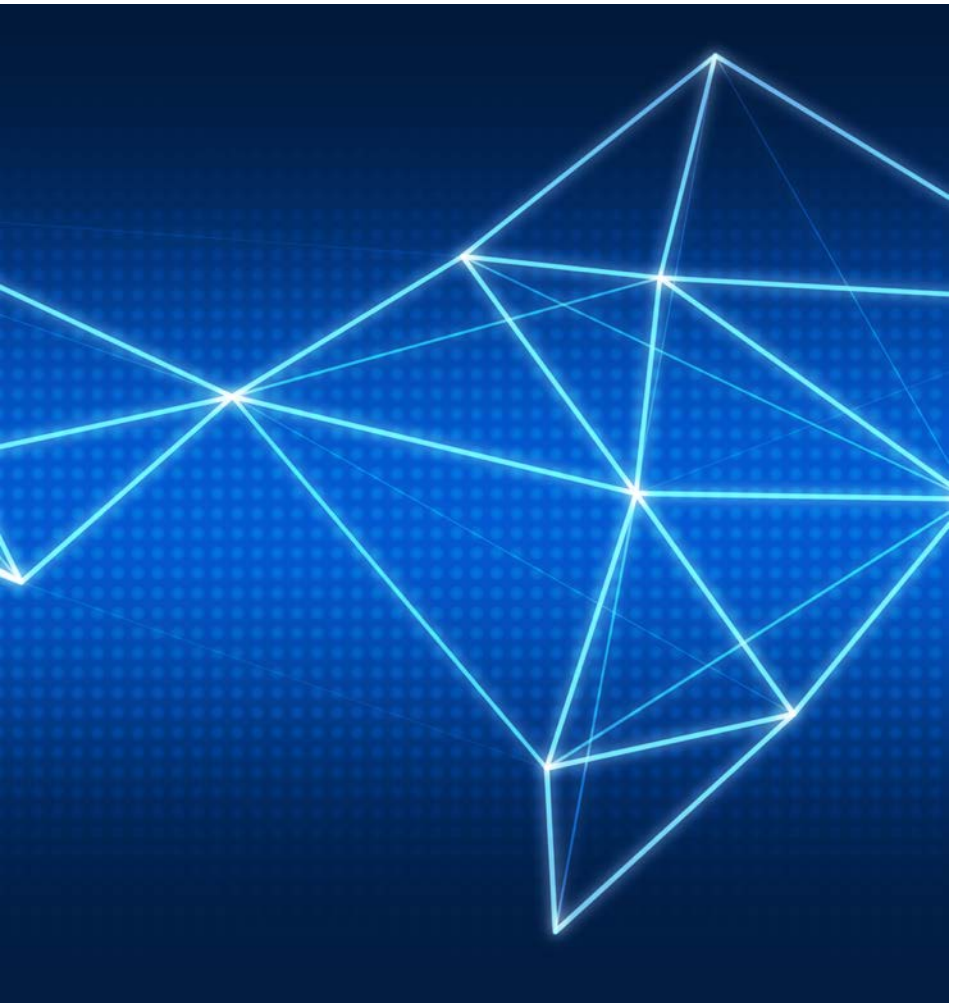
Realize innovation.

Solid Edge ~~*Un*~~managed



- Why Document Management in Solid Edge?
- Introductions - what are you looking for in Document Management
- What is Built in Document Management?
- Who are the Built in tools for?
- Getting started
- Tools and strategies

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Why Document Management?
Fix and prevent problems

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- Takes too long to find existing files
- When you find the file it may be incorrect
- Assembly links fail to resolve preventing assemblies from opening
- Managing Revisions is difficult
- Managing access to files to prevent accidental data loss
- Managing and facilitating access by downstream consumers
- Meta Data is inconsistent unreliable

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Why Document Management?
Competitive advantage

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- Document Management needs are largely impacted by business model
  - Unique product offering
  - Unique manufacturing processes
  - Area of expertise
  - Product line with volume advantages
- Managing design data - Geometric and meta data provides many benefits
  - Accurate access to design data - purchasing, manufacturing, service, sales and marketing
  - Quick accurate quotes leveraging design experience
  - Automating processes through workflows
  - Leveraging design changes against inventory and lead times
  - Managing collaboration for less serial design processes

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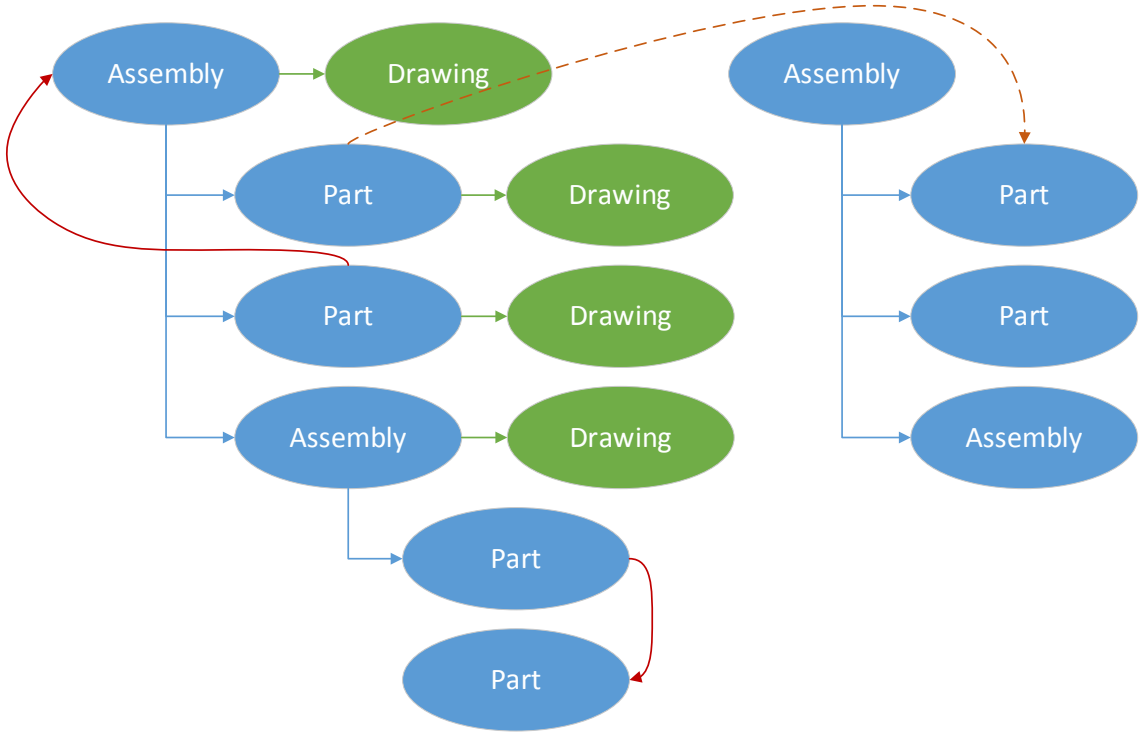
Why Document Management?

- Solid Edge is a tool that creates **files** that convey design requirements for product design
- These files have many links and interdependencies



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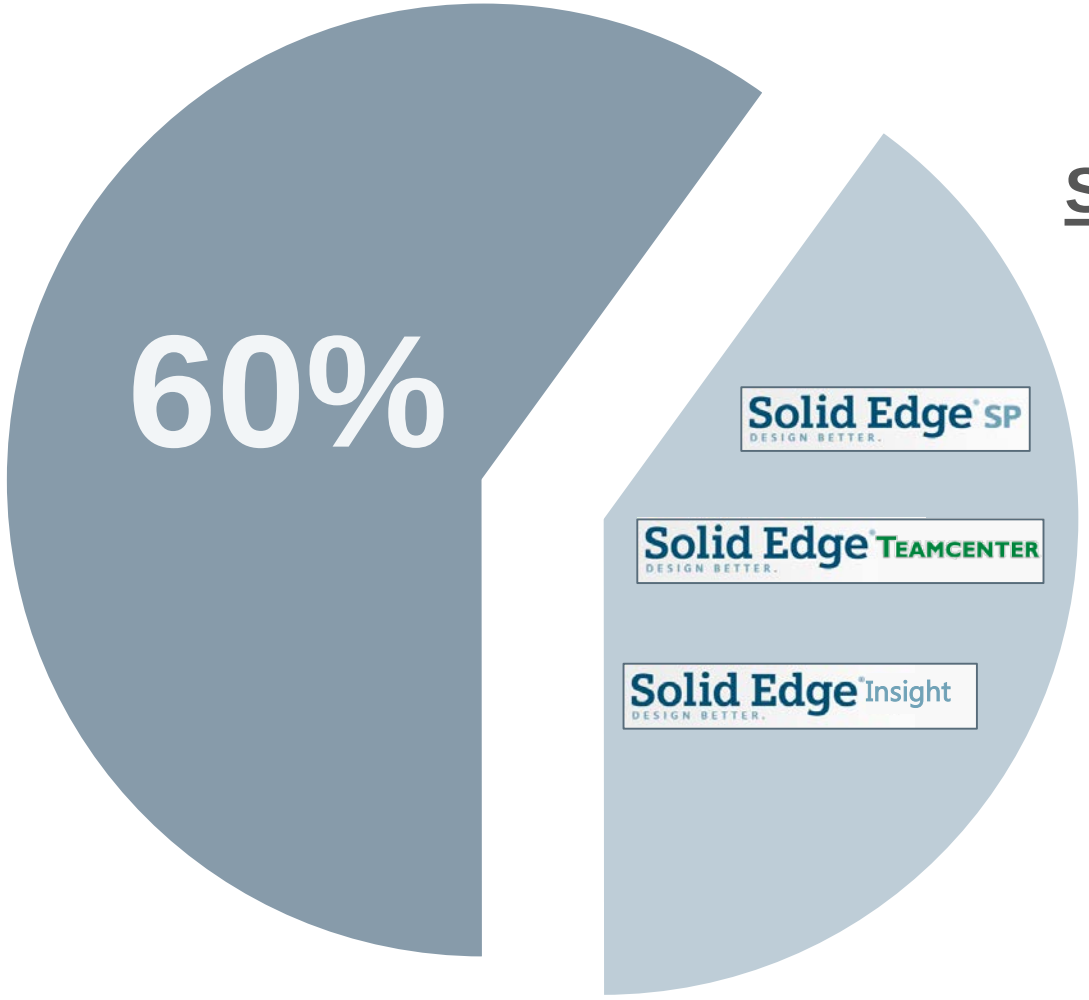
Why Document Management in Solid Edge?



Solid Edge Customer Base

- Don't use Document Management
- Use Document Management

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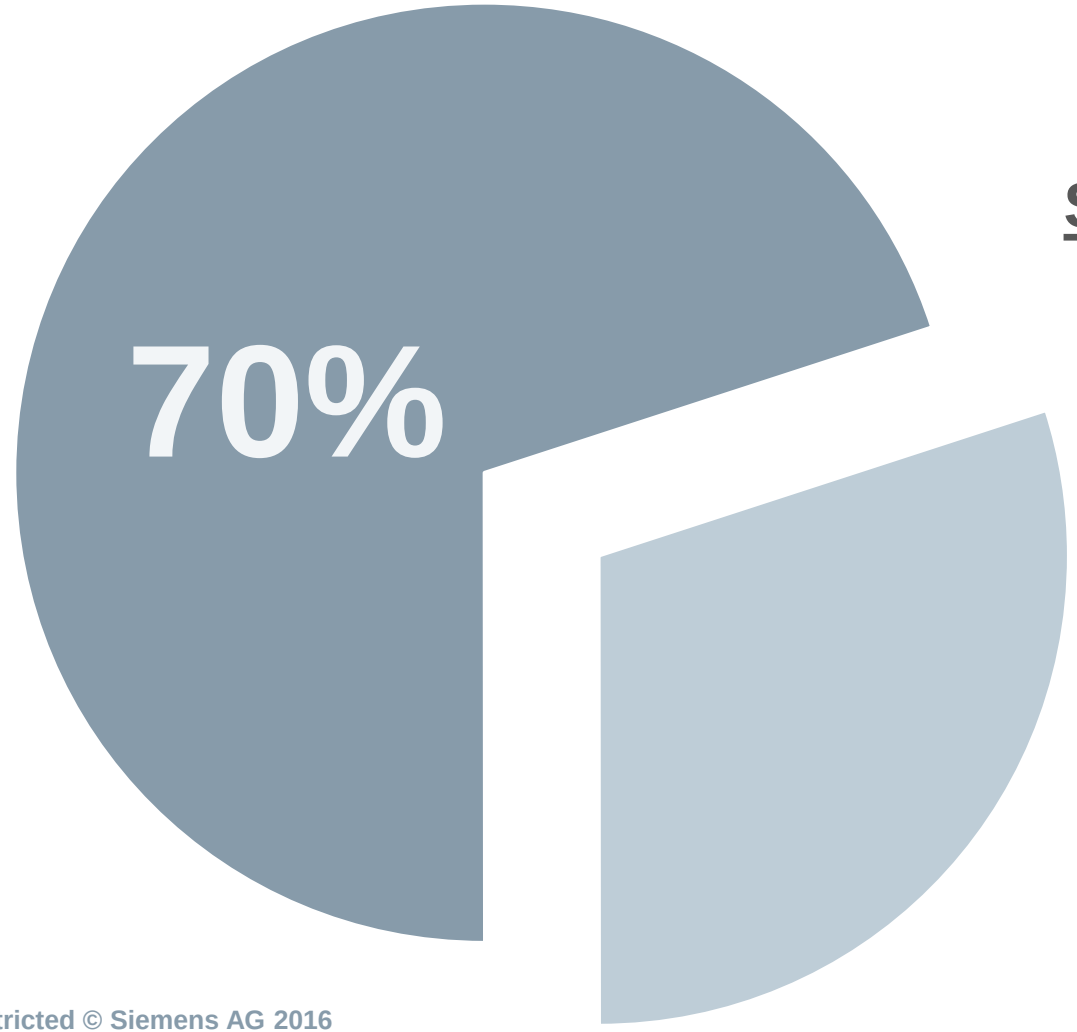
Why Document Management in Solid Edge?



Solid Edge Customer Base

- < 5 seats
- >= 5 seats

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Why not manage documents?

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The benefits to Document Management are clear, will they return investment?

Traditional barriers, especially smaller size companies:

- Licenses can be expensive
- Difficult to deploy
- No staff to maintain the system, no IT skills
- Changes may be disruptive
- Do not know where to start

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Why Document Management in Solid Edge?

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How do our customers produce without Document Management?

- **All 3D CAD users have Document Management**
  - Specified storage locations
  - NTFS permissions and shares
  - Properties on Solid Edge files
  - File naming conventions

- **The question is, does your Document Management solution suit your needs?**

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Why Document Management in Solid Edge?

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How do our customers produce without Document Management?

- **Solid Edge Built In Document Management tools**
  - Designed to help instill standards in managing Solid Edge files
    - Very Fast Search without a database
    - Help to preserve file uniqueness and capture basic Meta Data
    - Provide protected access and storage to released and reserved parts
    - Introducing tools and practices to collaborate with remote employees and partners

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Introductions

what are you looking for in Document Management?

- **Name**
- **Company**
- **Position**
- **What are you interested in learning this morning?**

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What is Built in Document Management?

Demo

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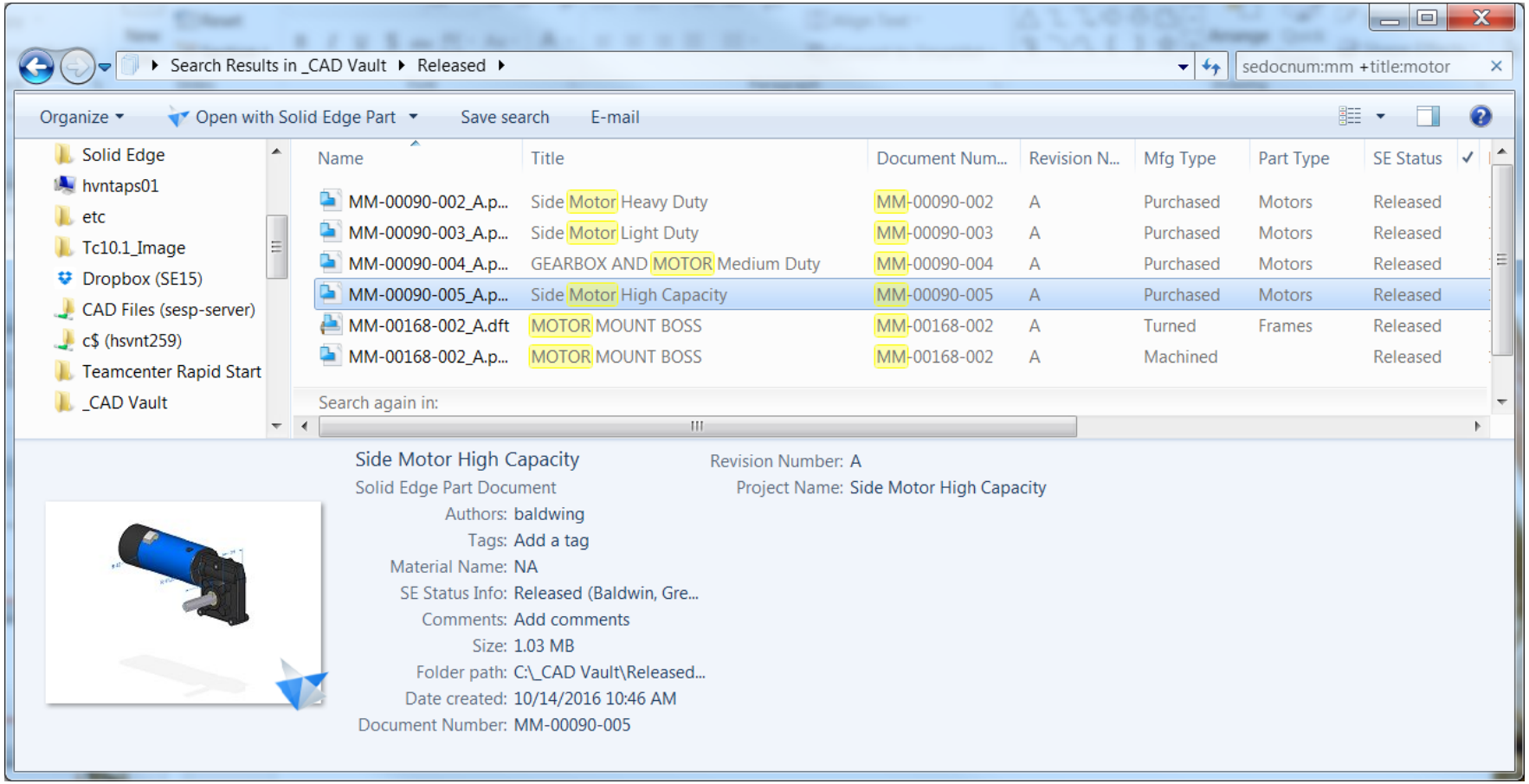
Quick Look

- Fast easy search
- Targeted search
- Intuitive filtering results
- Full use of results



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What is Built in Document Management?

Demo

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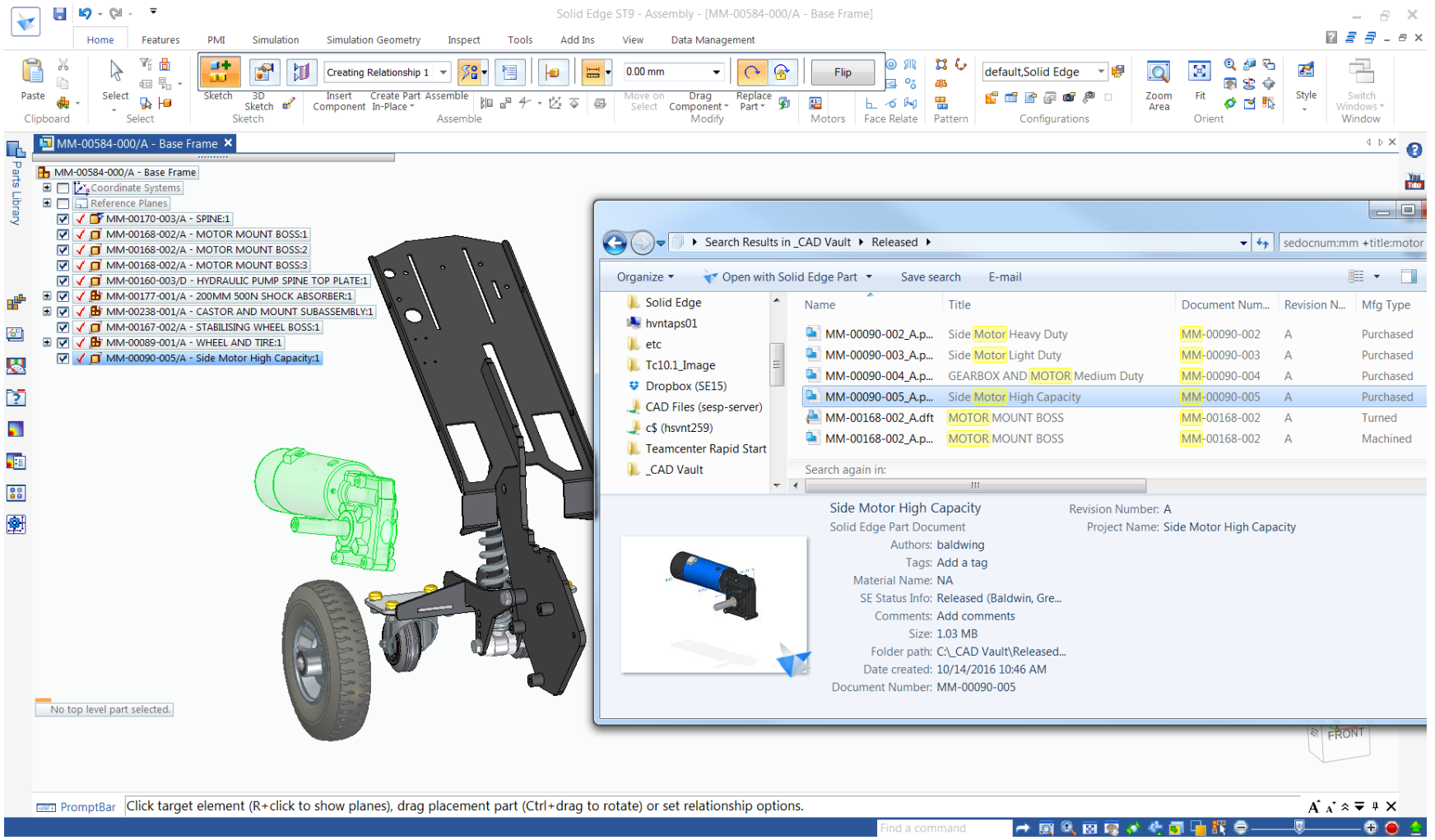
Quick Look

- Design Management
  - Find and reuse
  - Impact analysis
  - Access restriction
  - Manage change with Revise and new Part



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What is Built in Document Management?

Demo

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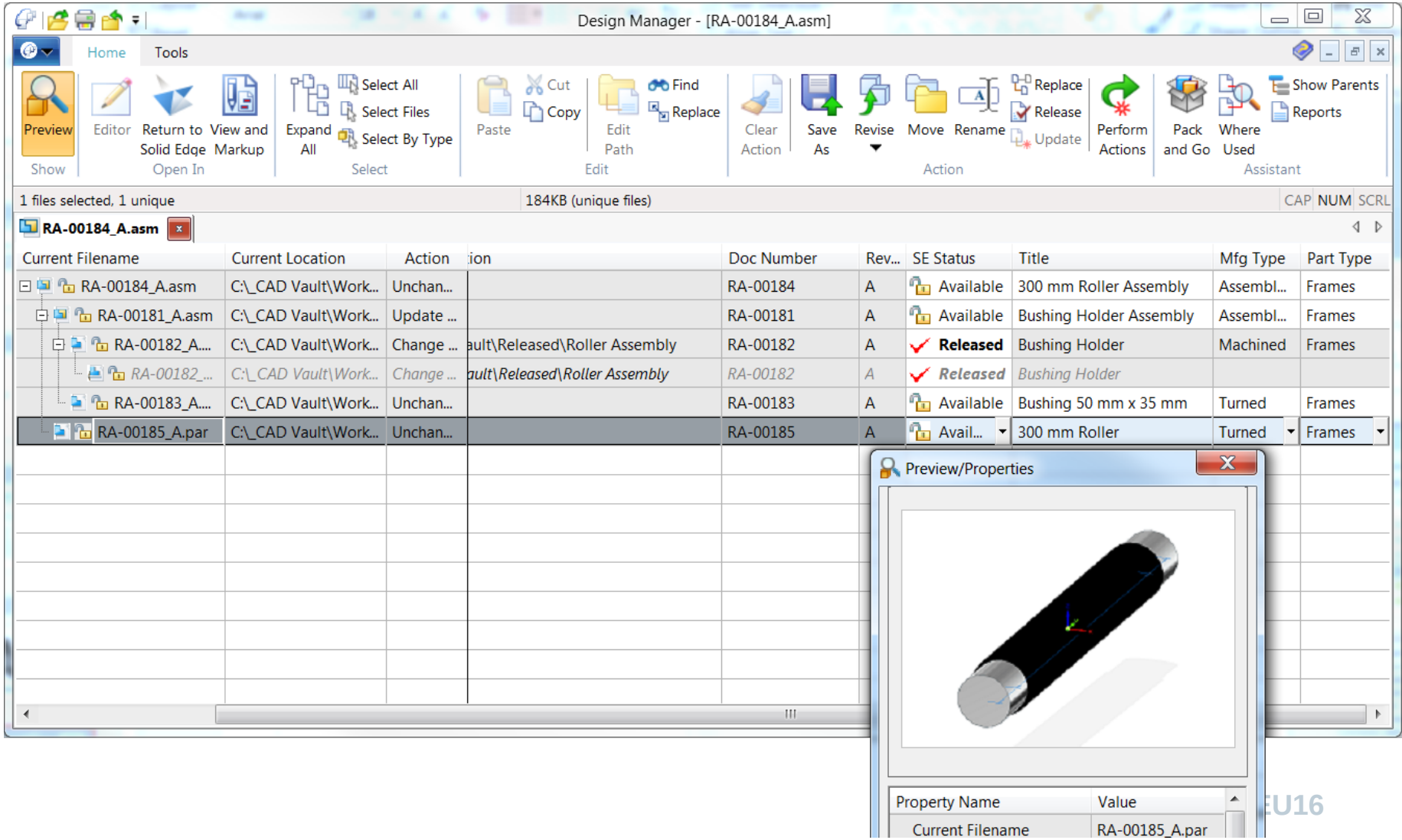
Quick Look

- New design
  - Unique filenames
  - Easy capture of Meta-Data
  - Life Cycle control
  - Simplified path for reuse of existing designs



What is Built in Document Management?

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What have we just seen?

- Fast find - with no DB to buy install or manage
- Uniqueness - Filename and Document #
- LCA - status management and storage

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Who are the Built In tools for?

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New Solid Edge users

- Not ready to implement a full PDM or PLM solution
- Planning to avoid problems that are typical with 3D CAD software

Existing Solid Edge users

- Typically in the 1 to 5 seat range
- Looking for tools that enhance typical manual file management processes
- Do not require automation such as workflows and revision rules

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Getting started

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The path for new users and existing users will vary

- Today we will focus on existing users
  - Existing accounts have their challenges
  - Many of the problems we are attempting to prevent already exist
    - Broken links
    - Duplicate files and properties
    - Inconsistent meta-data

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Getting started

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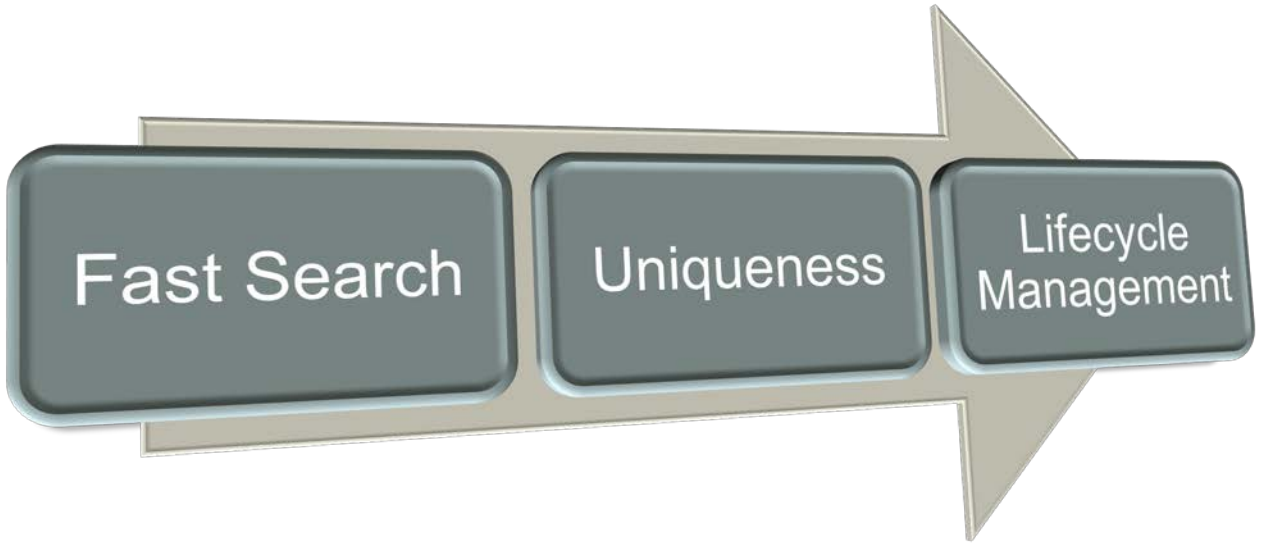
The path for new users and existing users will vary

- Implement in phases
- Consider what data needs to be used going forward and what data needs to be achieved



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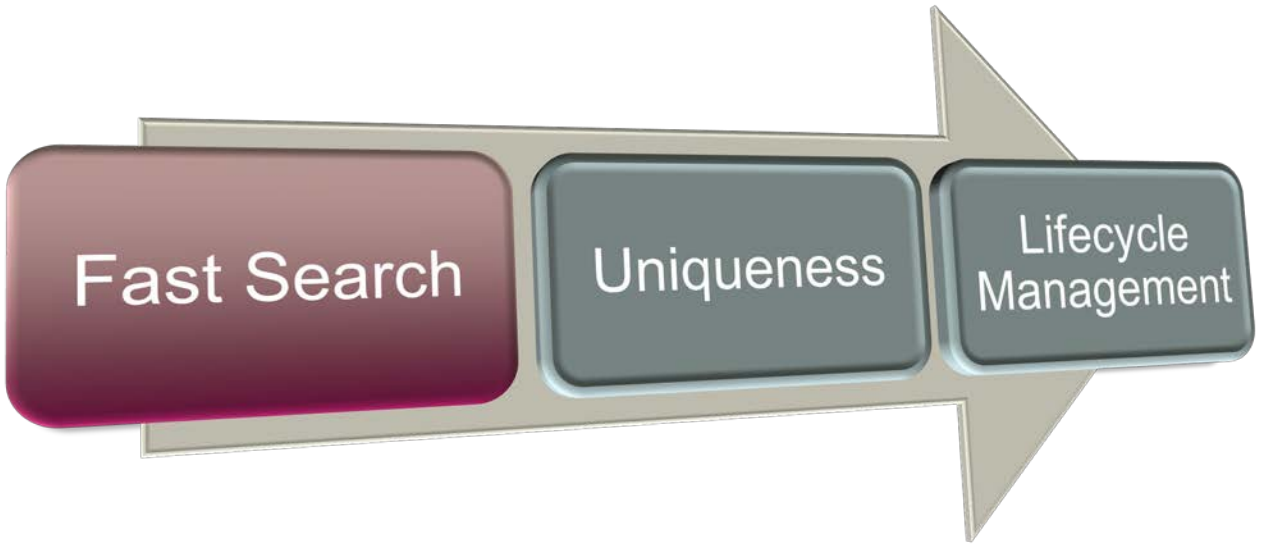
Fast Search

- Easiest to implement and quickest to realize benefit
- Choose between single user local or network share
- Recommend that you approach as a vault storage on network share
  - This implies that files be stored in a single volume in a single folder structure
  - Provides greatest ease performing search
- Additional effort maybe necessary to improve search functionality and results



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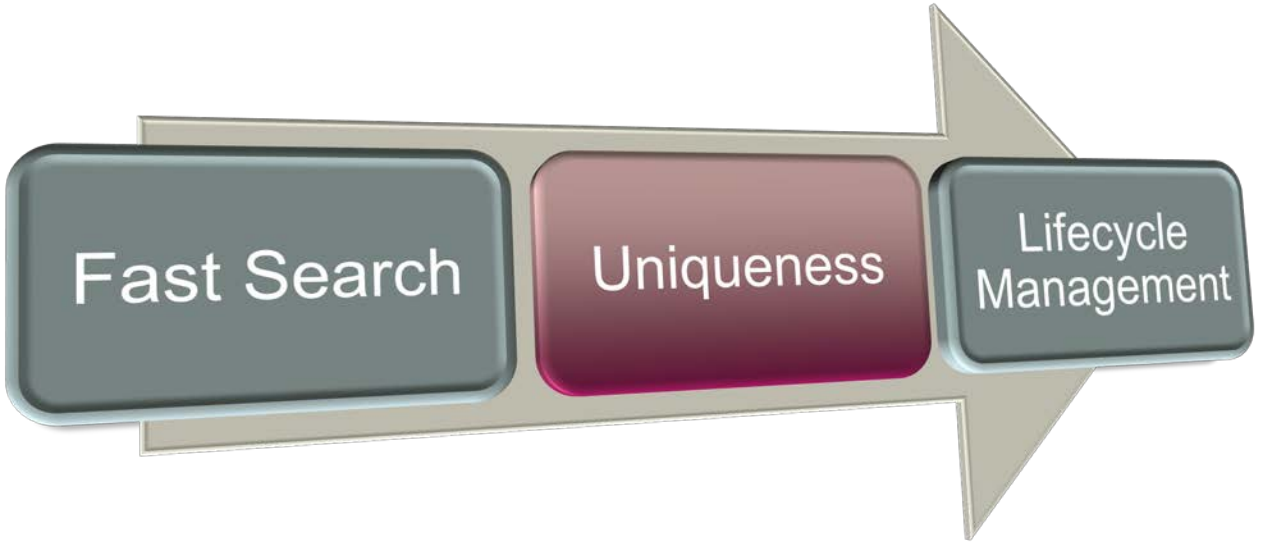
Uniqueness

- Solid Edge allows filenames to defined by Document Number and Revision
  - This assures that by best practice, all files will have a unique filename
  - The only time files do not have a unique Document Number is with revisions
- This process could prove problematic for legacy data
  - Naming issues
  - Inconsistent document numbers



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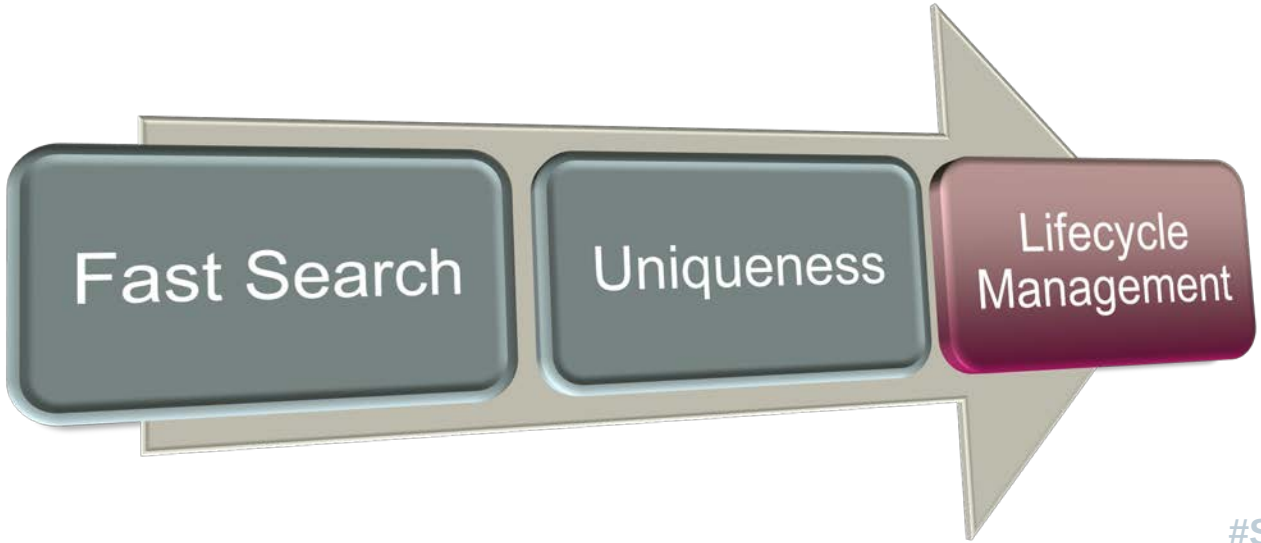
Lifecycle Management

- Lifecycle management consists of 2 parts
  - Using SEStatus to define access by Solid Edge
    - Available, In Work, and Released
  - Using Locations to physically move files based on status
    - Files are stored in folder structures defined for
      - Pre-Released
      - Released
    - Folder storage should be considered when defining vault with search



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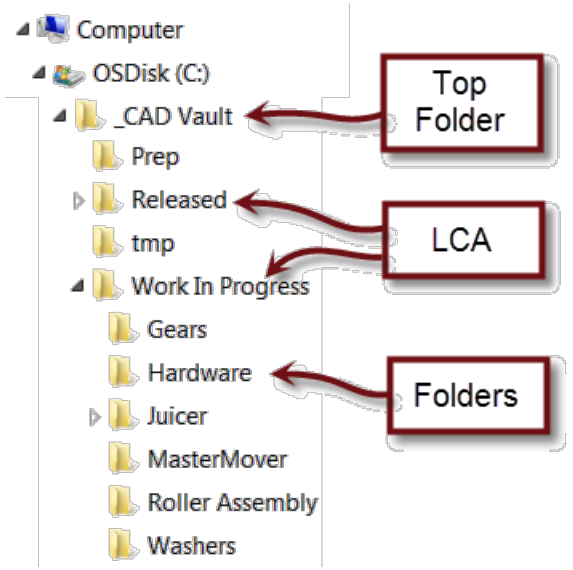
Setup Search

Define a vault

- Vault can be on local volume for single user
- Vault should be on a file server for multiple users
- Ideally Vault should be a single folder structure
- Consider LCA locations
- Add the path(s) of top folders to the FastSearchScope.txt file in the Preferences folder for each Solid Edge client



Note: Network Shares must use a UNC address. Mapped network drives will not support search.

Setup Fast Search

- **Define a vault**
- Check services
- Set permissions for Index
- Configure Fast Search and start Index

Add custom properties

- Define list of custom properties
- Register Custom Properties
- Run Re-Index

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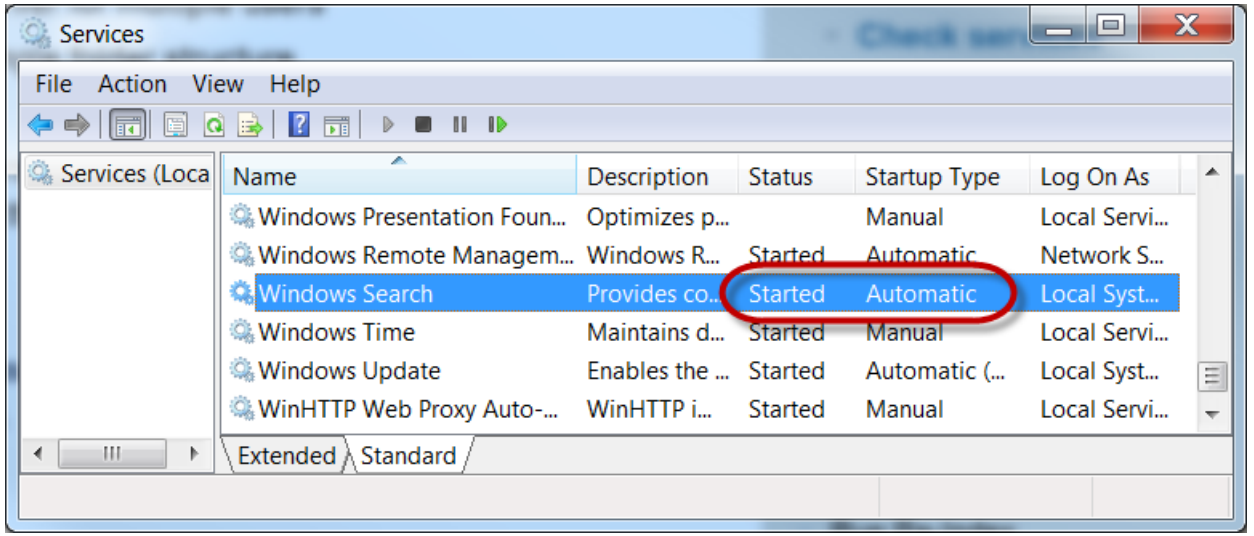
Setup Search

Check services

- The windows Search services must be running on the computer where the vault is

Note: Set as Automatic so it starts on reboot.



Setup Fast Search

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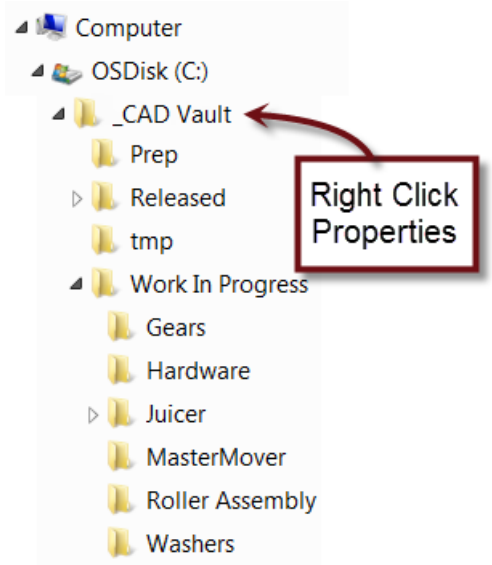
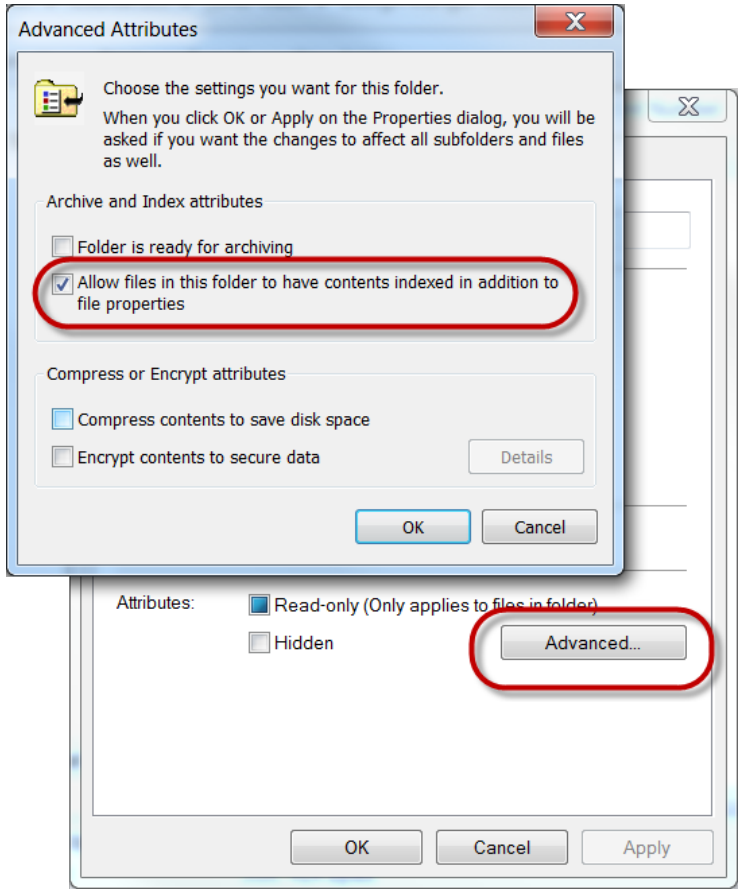
Setup Search

Set permissions for Index

- Open Properties on the top folder of the vault
- Select Advanced
- Check to allow Index
- Click Ok
- Apply changes to all sub-folders





Setup Fast Search

- Define a vault
- Check services
- **Set permissions for Index**
- Configure Fast Search and start Index

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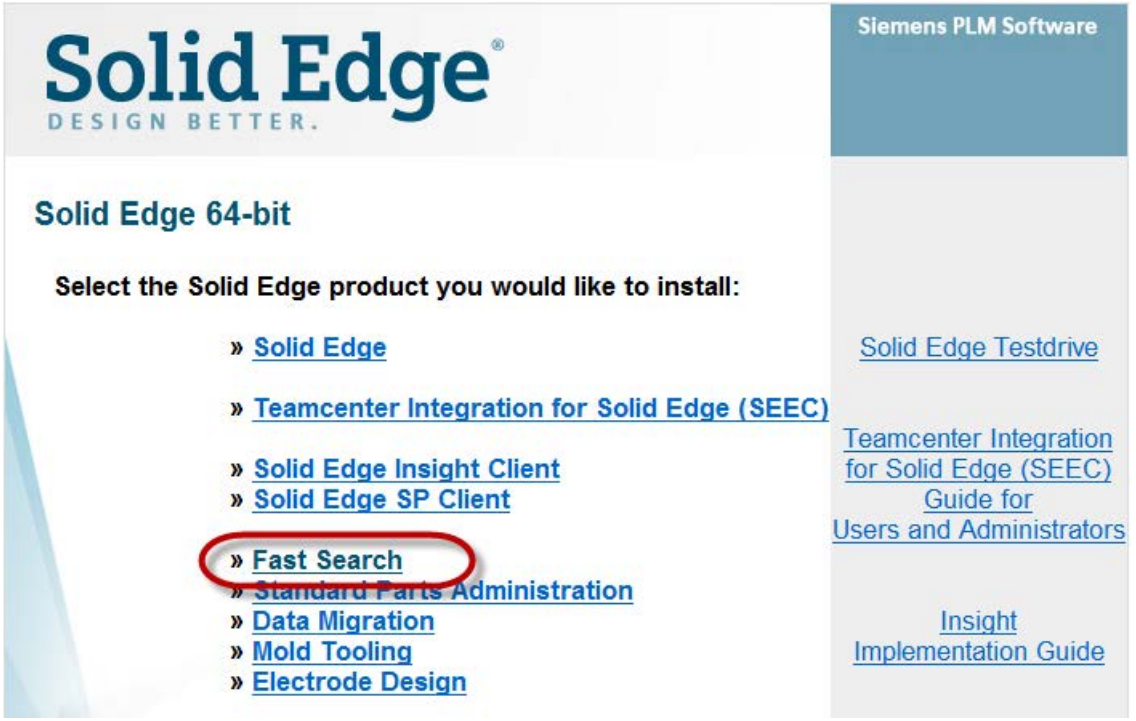
Setup Search

Configure Fast Search and start Index

- Indexing can be configured from Solid Edge Options for single users
- Installing on the server requires installing “Fast Search” from the Solid Edge installer



Setup Fast Search

- Define a vault
- Check services
- Set permissions for Index
- **Configure Fast Search and start Index**

Add custom properties

- Define list of custom properties
- Register Custom Properties
- Run Re-Index

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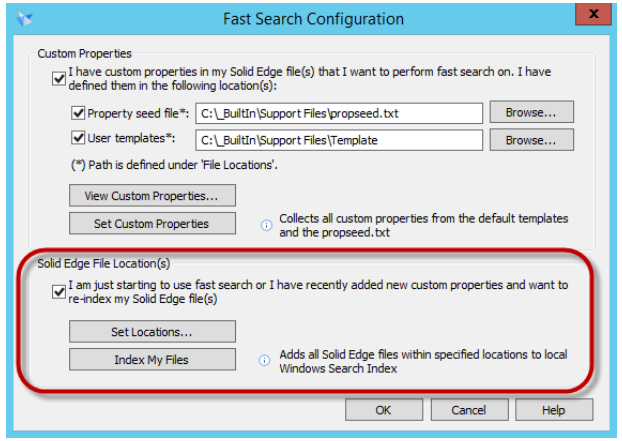
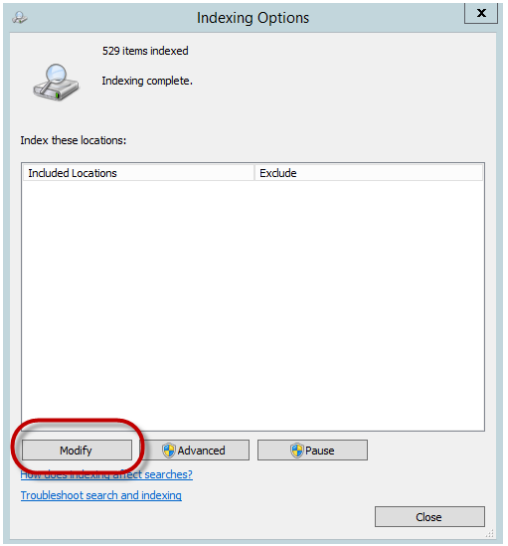
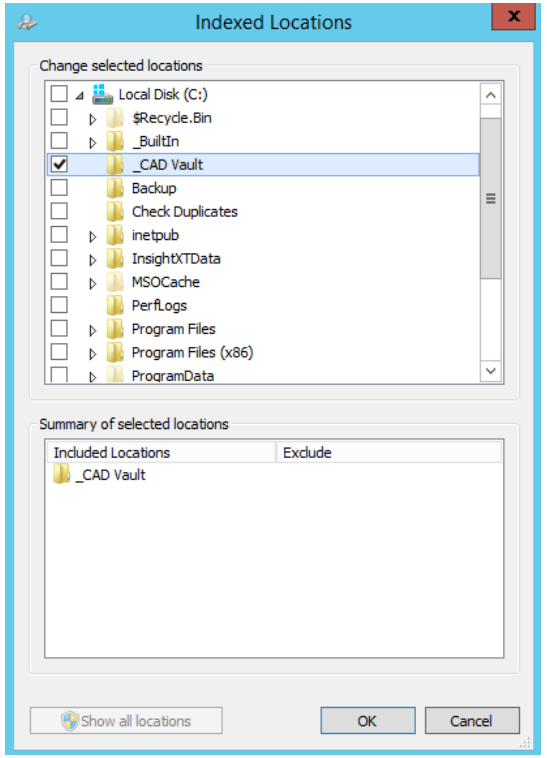
Setup Search

Configure Fast Search and start Index

- Select set locations
- Select Modify
- Browse and select your vault folders
- Ok back to Indexing Options







Setup Fast Search

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- Check services
- Set permissions for Index
- **Configure Fast Search and start Index**

Add custom properties

- Define list of custom properties
- Register Custom Properties
- Run Re-Index

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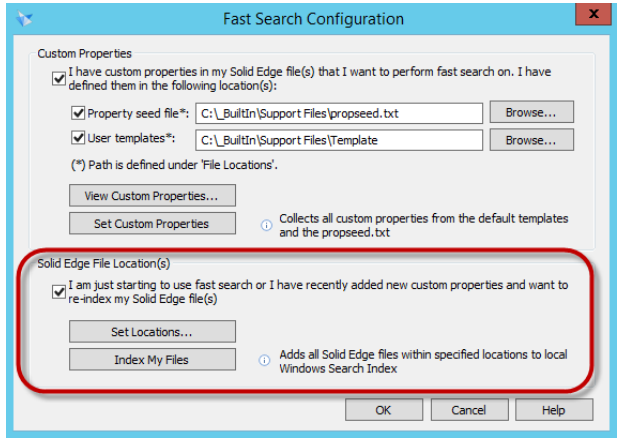
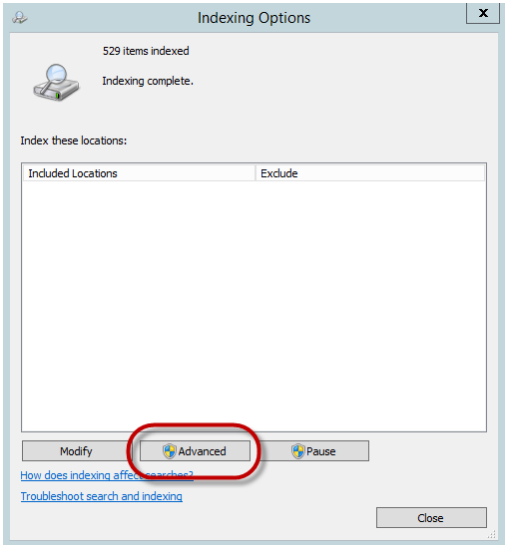
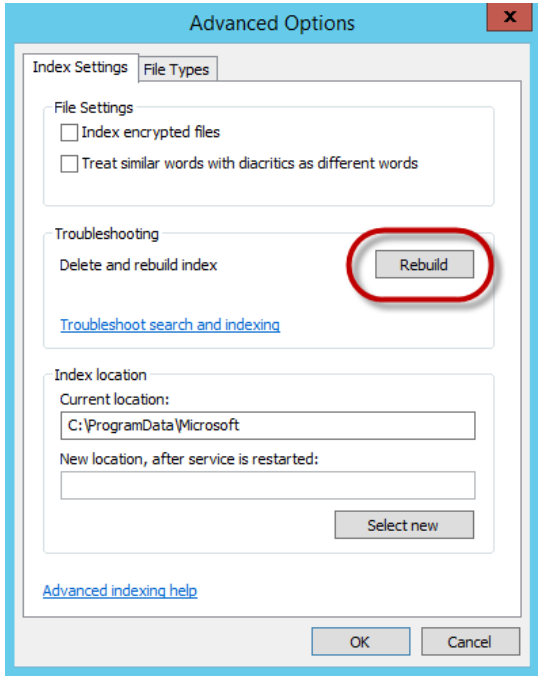
Setup Search

Configure Fast Search and start Index

- Select Advanced
- Select Rebuild to index all checked folders
  - This can take a while depending on the # of files
  - You can skip this step if you are going to include custom properties







Setup Fast Search

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- Check services
- Set permissions for Index
- **Configure Fast Search and start Index**

Add custom properties

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- Run Re-Index

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Setup Search

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Configure Fast Search and start Index

- This now makes all Solid Edge properties indexed
  - Mnemonics are defined for search
  - Columns can be added to Explorer

- This does not assure quality of search as most unmanaged Solid Edge users will have very inconsistent properties

Setup Fast Search

- Define a vault
- Check services
- Set permissions for Index
- **Configure Fast Search and start Index**

Add custom properties

- Define list of custom properties
- Register Custom Properties
- Run Re-Index

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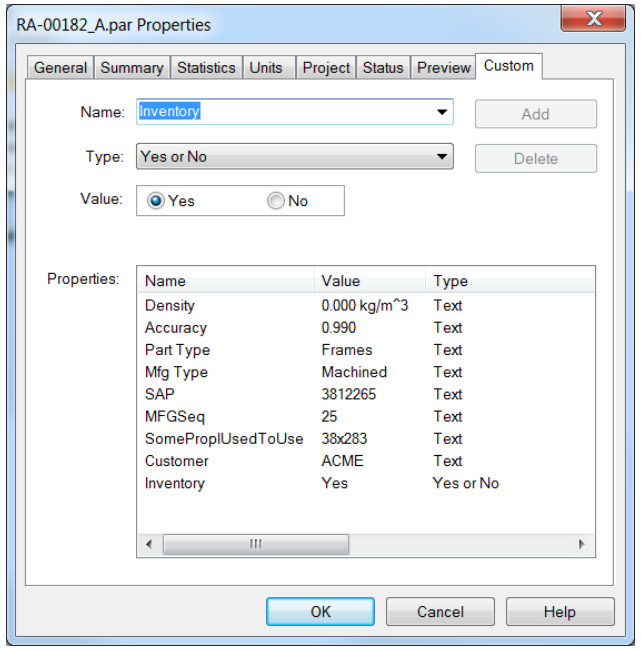
Setup Search

Add custom properties

- Custom Properties is the ideal means to populate drawing title blocks
- They are also key to populating PDM solutions as the primary means of capturing non geometric data called Meta-Data
- This Meta-Data is what feeds all downstream consumers including search

- Custom Properties tend to be less consistent
  - Both values and property names



Setup Fast Search

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- Check services
- Set permissions for Index
- Configure Fast Search and start Index

Add custom properties

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- Run Re-Index

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Setup Search

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Define list of custom properties

- The 1st challenge is getting the list of all custom properties
  - This list tends to evolve over the years
  - Tools to find this list documented later
- This list needs to be defined in Solid Edge
  - Centrally stored for consistency
  - List Of Values also help assure consistent input

Setup Fast Search

- Define a vault
- Check services
- Set permissions for Index
- Configure Fast Search and start Index

Add custom properties

- **Define list of custom properties**
- Register Custom Properties
- Run Re-Index

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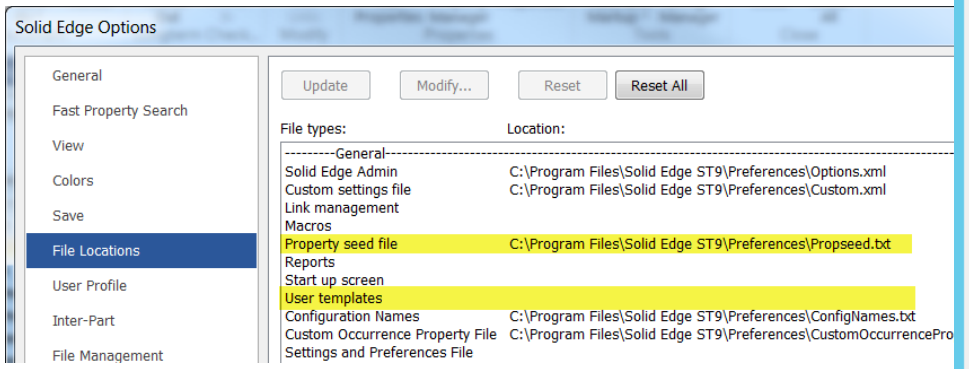
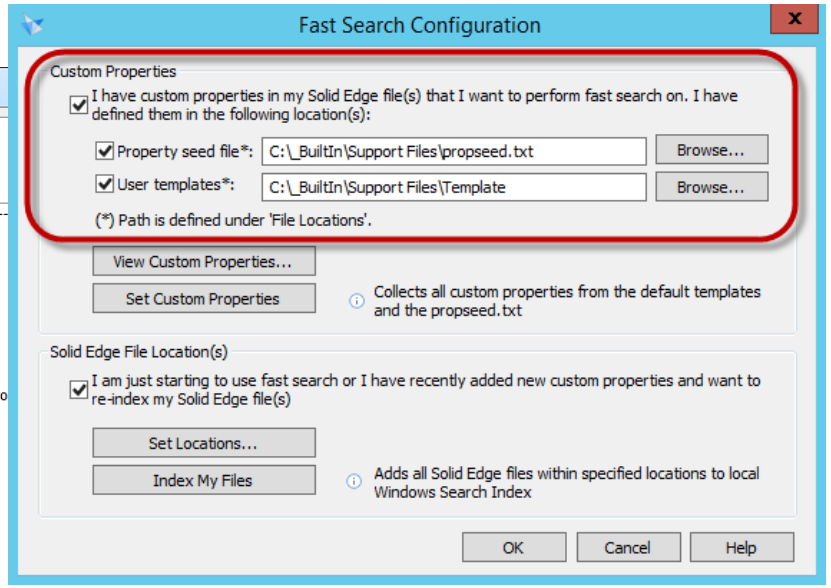
Setup Search

Define list of custom properties

- Solid Edge provides 2 tools for managing custom properties
  - Propseed.txt
  - Solid Edge Template files
- These files must be centrally located for multi-users





Setup Fast Search

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Add custom properties

- **Define list of custom properties**
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Setup Search

Define list of custom properties

- Propseed.txt
  - Defines the Property as text, yes / no, integer, etc
  - Defines List Of Values with default value
  - Makes it easily available in custom property dia
- Solid Edge Template files
  - Allows the property to be in the specific file type on creation
  - If MFG Type should always be sued in Part files, define in Propseed.txt and add to part file template

Setup Fast Search

- Define a vault
- Check services
- Set permissions for Index
- Configure Fast Search and start Index

Add custom properties

- **Define list of custom properties**
- Register Custom Properties
- Run Re-Index

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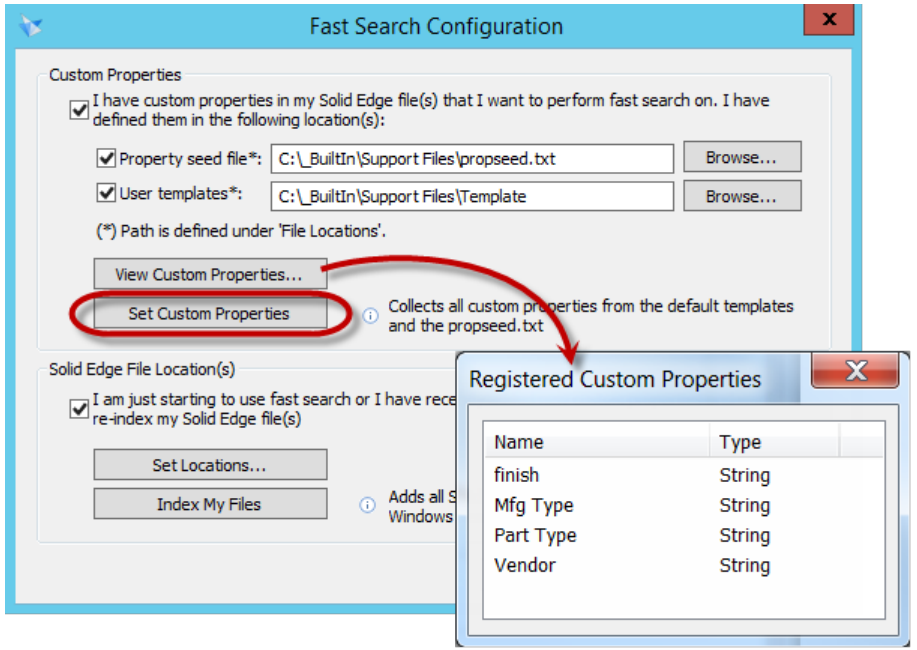
Setup Search

Register Custom Properties

- Multi-User Fast Search configuration
  - Specify location of Proseed.txt and templates
  - Select “Set Custom Properties” usually takes 2 tries
  - Select “View Custom Properties” to assure success



Setup Fast Search

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Add custom properties

- Define list of custom properties
  - **Register Custom Properties**
- Run Re-Index

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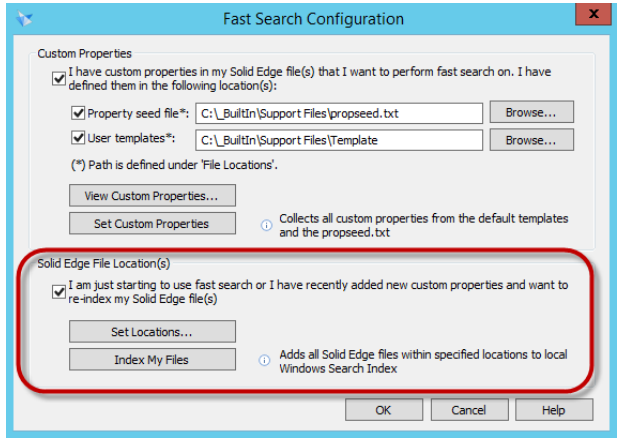
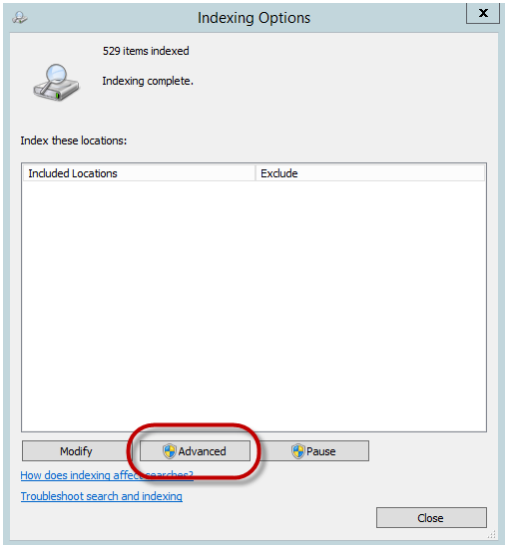
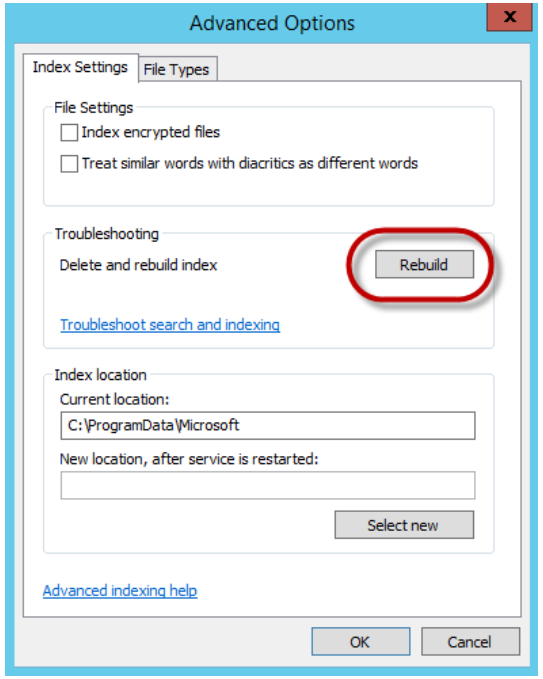
Setup Search

Run Re-Index

- Rebuild the index to capture additional properties







Setup Fast Search

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Add custom properties

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- Register Custom Properties
- **Run Re-Index**

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Uniqueness

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File and Document Number Uniqueness

- Document Numbers typically are used as Part Numbers
  - Therefore they are the key identifier in the organization
- Filenames are what Solid Edge to resolve all links

- Typical unmanaged workflows always causes duplication of these 2 values
- Duplication of these values tend to be the central cause for most file management problems and import issues for PDM/PLM deployments

- Resolving duplicate files is a very difficult task as the duplicated information is what you use to identify the problem

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Uniqueness

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File and Document Number Uniqueness

- Therefore a key tenet to Solid Edge document management is
  - Help to prevent duplication
  - Identify duplication before it becomes an overwhelming task

- This section also allows for the Revise command to work properly

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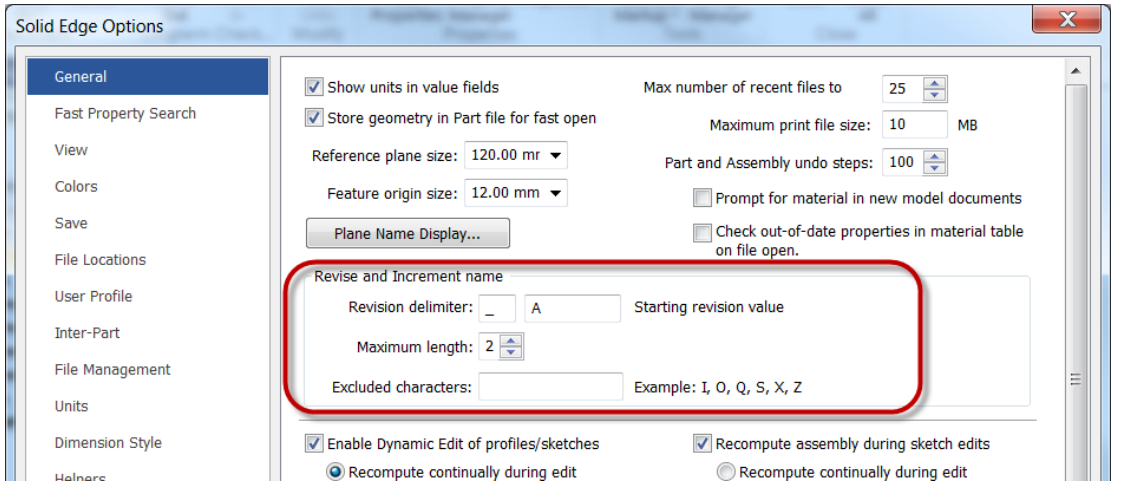
Uniqueness

File and Document Number Uniqueness

- Filename uniqueness requires configuration of revisions
  - Open any 3D document environment
  - Open SE Options -> General
  - Specify a delimiter to separate Document Number from Revision
  - Recommend that the delimeter not be used in the Document Number
  - Hit apply or Ok before leaving screen



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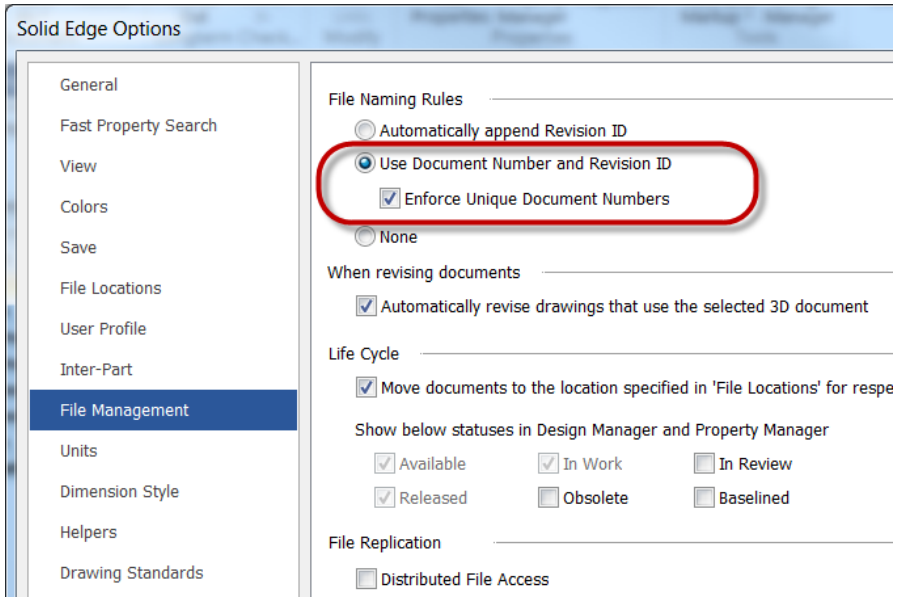
Uniqueness

File and Document Number Uniqueness

- Solid Edge Options -> File Management
  - None, turns this functionality off
    - This is the recommended setting for existing users until you plan and test your use of file naming
  - Use Document Number and Revision ID
    - This option prevents users from directly naming the Solid Edge file on save
    - User must enter a value for document number
    - Enforce Unique… searches to assure the number has not been previously used
  - Automatically revise drawings – finds drawings and revises them



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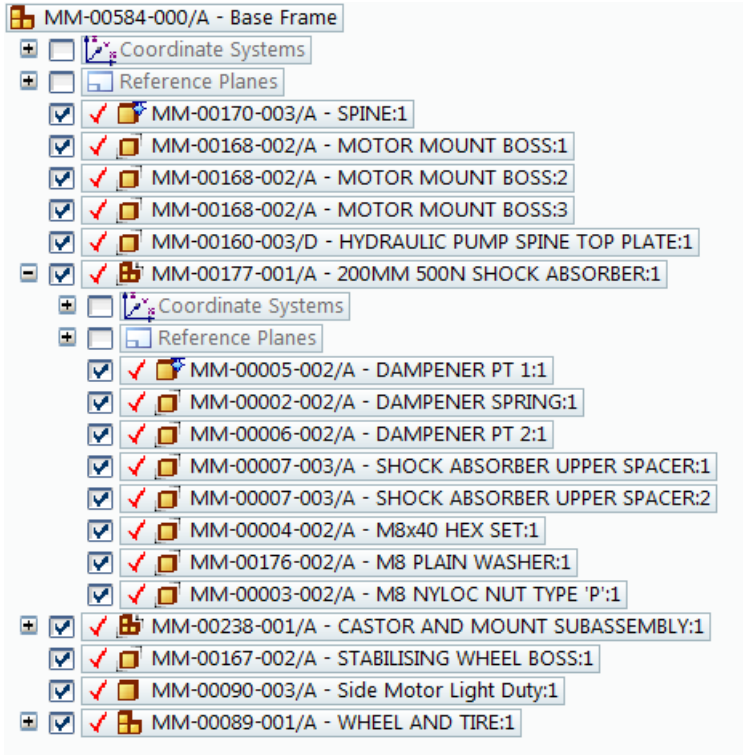
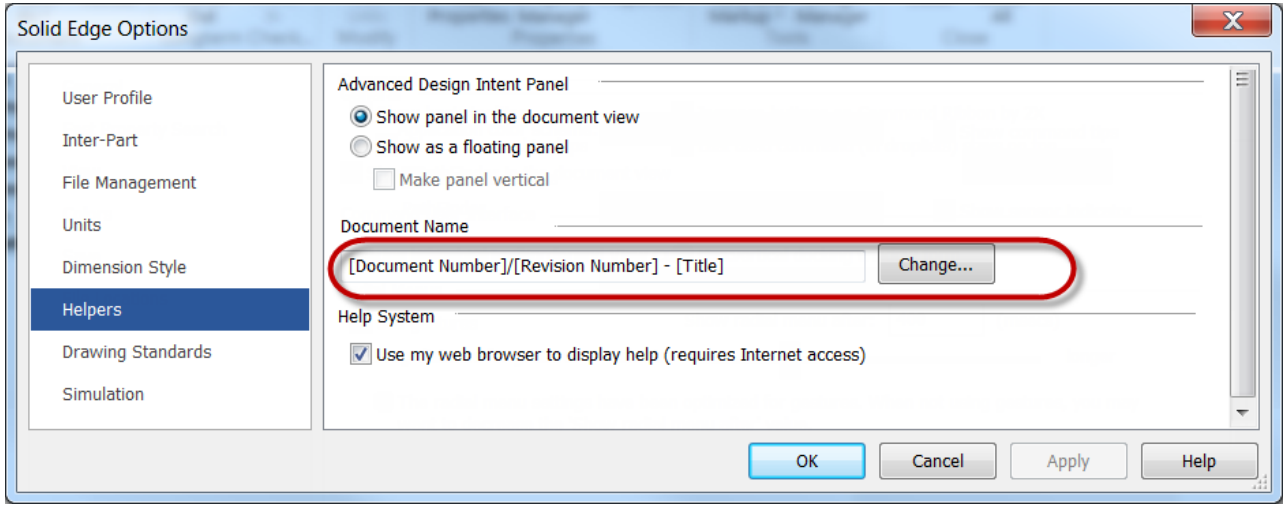
Display Formula

- Since the filename is predefined and not descriptive, uses should consider using a Pathfinder Formula instead of the filename





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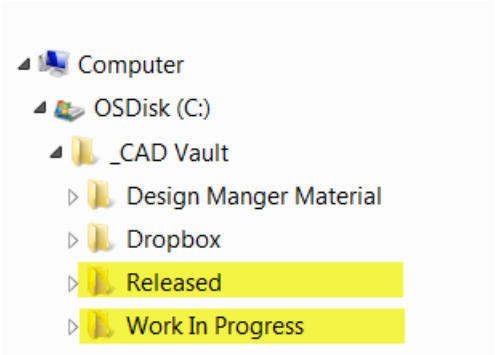
Configuring Lifecycle Management

- There are 2 components to Lifecycle Management
  - The 1st is simply setting the SEStatus property to control Solid Edge's ability to alter a Solid Edge file such as Released or Available
  - The is no configuration for this, it is always on
- SEStatus only prevents Solid Edge's permission to save
- Therefore LCA allows you to specify folders within your vault to store Pre-Released and Released files
  - Folder structures are copied with files during release, revise, and save as operations
  - This allows NTFS permissions to be used to restrict access for non Solid Edge users



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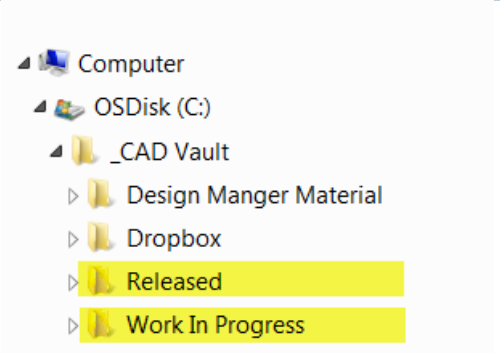
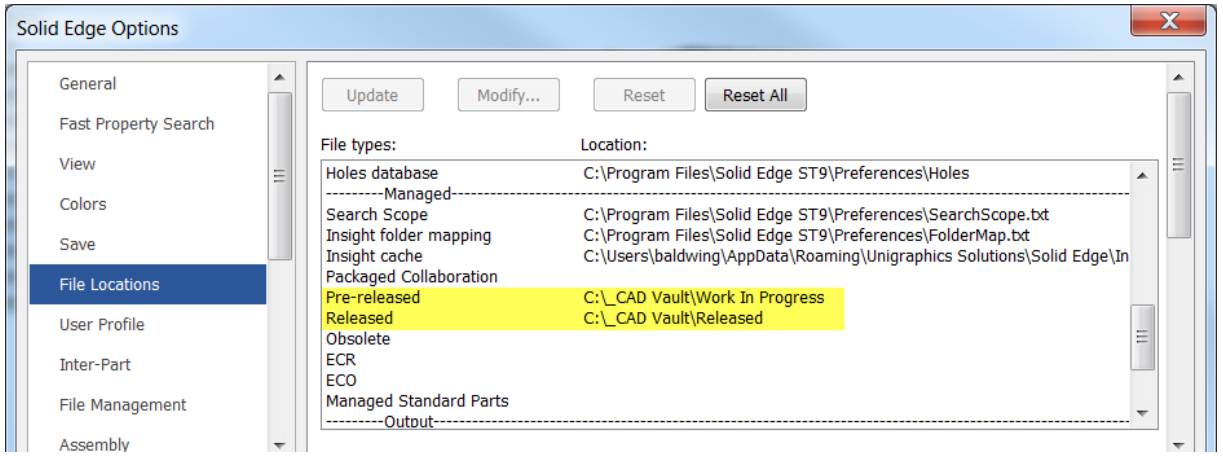
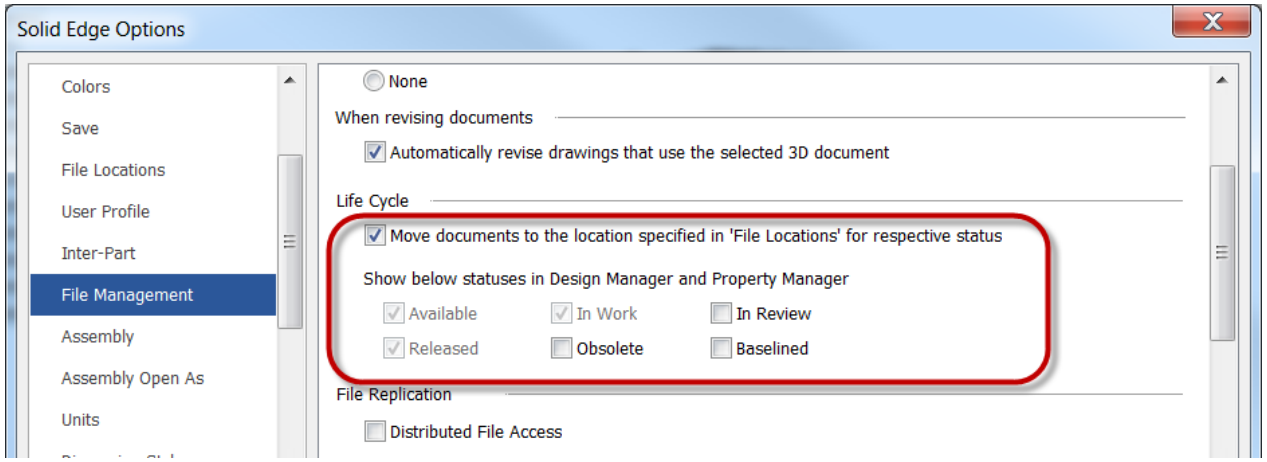
Configuring Lifecycle Management

- Pre-Release and Released locations must be set or “Move documents…” can not be set
- Available SEStatus values can be simplified by unchecking values







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Tools and strategies

Deployment Plan

- Define level of deployment
- Advantages to

Add support for custom properties

- Define list of custom properties
- Register Custom Properties
- Run Re-Index

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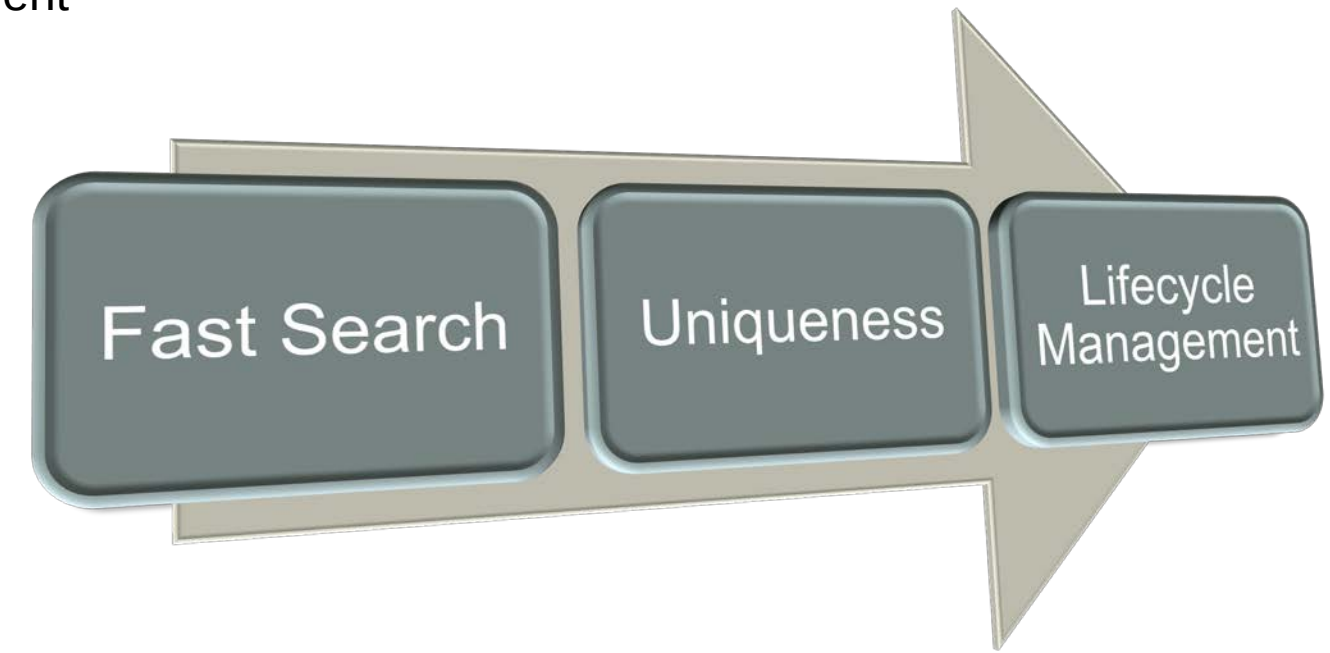
Define level of deployment

- Fast Search
- Uniqueness – file naming revision
- Lifecycle Management



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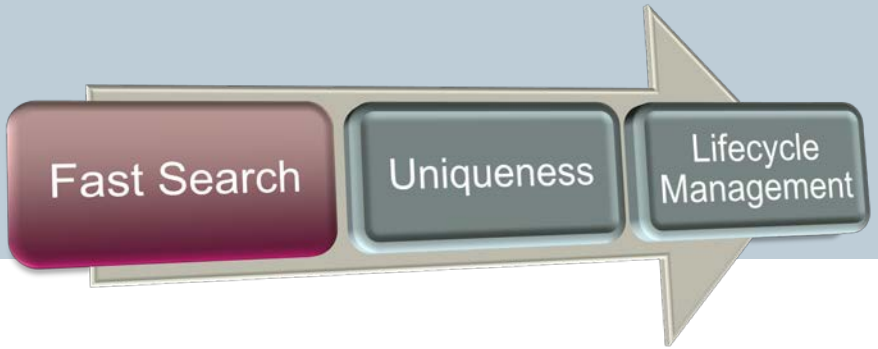
Tools and strategies



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Fast Search

- Basic
  - May require some file reorganization to build a consolidated storage as vault
  - Basic search of Solid Edge properties and where used is easily achieved
- More complex
  - Add properties to Propseed.txt and Templates
  - Find properties to Add
  - Search may provide inconclusive results with out some clean up

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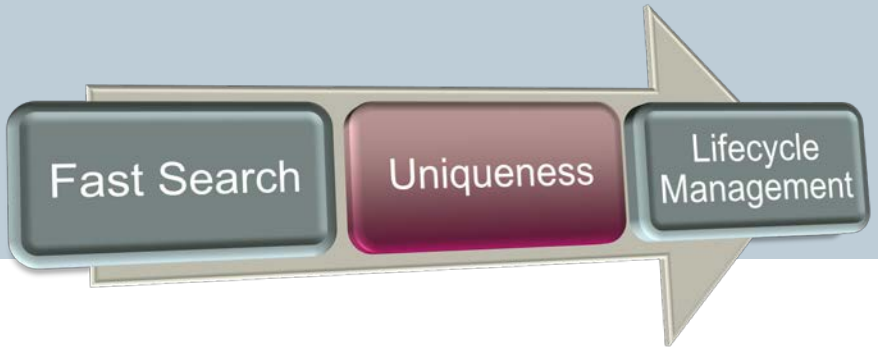
Tools and strategies



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Uniqueness

- This will likely be a difficult level to achieve with legacy data
  - This will more than likely require full data preparation and file rename
  - Consider only bringing forward necessary files
  - Leave the remainder of files in archived location

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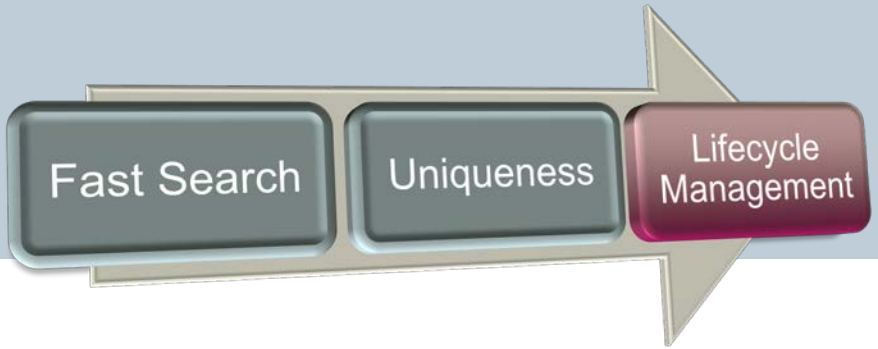
Tools and strategies



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Lifecycle Management

- SEStatus is easily achieved with no effort
- Revise really requires unique filenames that are Document # and Revision

- Location may be considerable in effort as much more work needs to be done to structure your vault

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Data Preparation

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3 examples that will help to get you started

- Perform analyze, generate a list of custom properties
- Fix typical broken link where the file is simply not where it belongs
- File rename to prepare for Uniquness

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Thank You!

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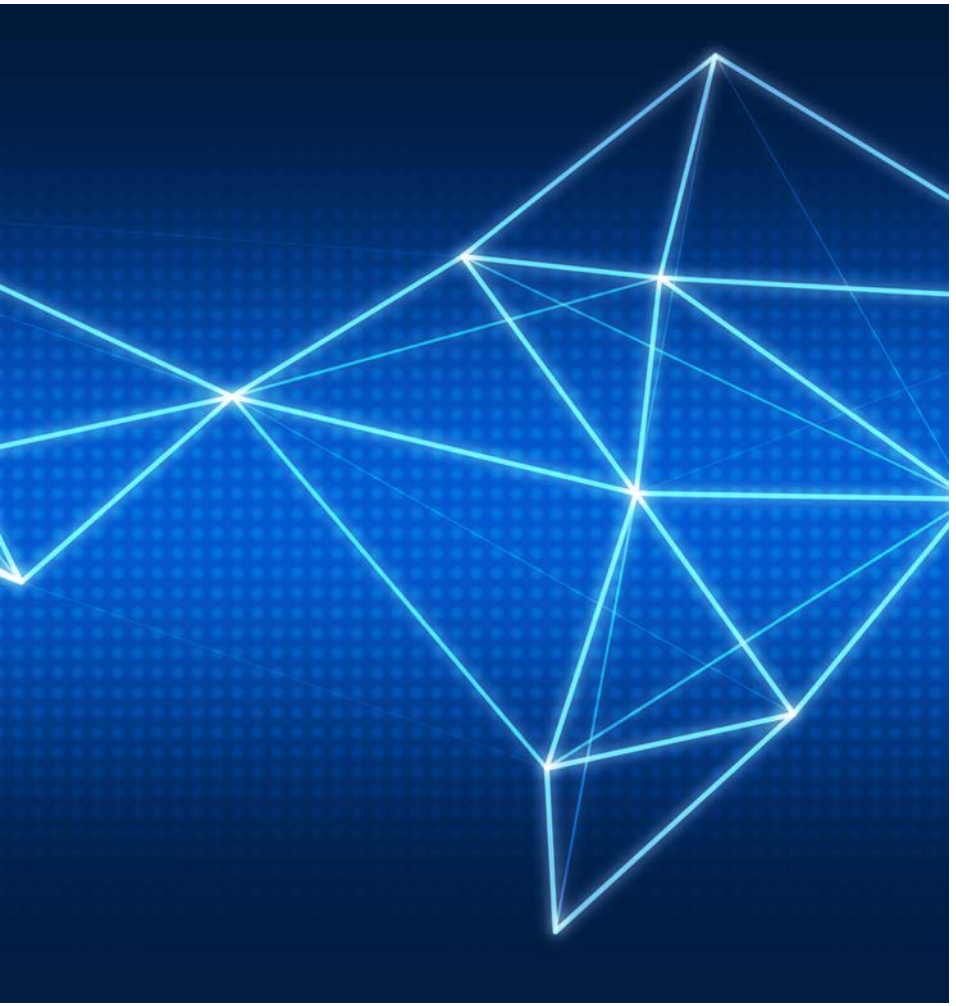

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