



Legend Enterprise Feature List

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Change Record

Date	Comment
12/1/2006	Created for Legend for PDMLink 8.0
2/1/2007	Updated for UG NX4 Support
5/18/2007	Version supported updated for CATIA V5



About This Guide

Related Documentation

Legend for PDMLink Users Guide
Legend for PDMLink Best Practices Guide

Technical Support

Visit www.i-cubed.com or call at +1-919-755-5305
Support hours of operations: M-F 9am-5pm (GMT -5)



1 General Features

This chapter lists and describes all of the end user and administration features delivered out-of-the-box in Legend for Windchill.

Wizard User Interface

Legend uses a Wizard based user interface to guide you through your migration setup and execution.

File Source

The file source is where Legend looks for files to process. Only one source is allowed for a given project.

File System

Legend allows for files from multiple directories on local hard disks and windows mapped drives to be loaded as a single Legend project. The user can select one or multiple base directories and all files in that directory and subdirectories will be processed through Legend for loading.

CSV File

Legend can take a CSV file that contains content location and content metadata. When migrating from an existing database or PDM system, customer will generally want to retain some or all of the metadata from their existing system. Legend provides a CSV file source input which is typically used to support migrations from existing data management systems.

Project Features

Legend uses the term Project to represent the containerized Legend run.

New Project

You can create a new project and save the location for this project. The default location is `<Legend_root>\Projects`.

Existing Project

You can open a saved project to the point where you last saved the project. Saving a project also saves its projects files, log files, and reports.

Document Destination

Legend allows you to select a context within your Windchill system for the document migration destination. The destination is defined on a per project basis. A CSV file will allow you to define the Document Destination on a per file basis.

Part Destination

Legend allows you to select a context within your Windchill system for the Part migration destination. The destination is defined on a per project basis. A CSV file will allow you to define the Part Destination on a per file basis.

Attribute Mapping Methods

Basic Mapping

The Basic Mapping user interface allows constant values or directory names to be mapped to Windchill Out-of-the-Box or user-defined attributes (soft attributes).

Application Attributes to Windchill Out-of-the-Box Attributes

The CAD-specific mapping user interfaces allow attributes defined within the CAD application files to be mapped to Windchill out-of-the-box attributes including: cad name, description, document folder, document number, document name, part number, part name, lifecycle template, lifecycle state, revision. This feature is available for all CAD systems except Pro/ENGINEER. Also available is mapping of MS Word and Excel summary and custom properties to OOTB attributes.

Application Attributes to Windchill Soft Attributes

The CAD-specific mapping user interfaces allow attributes defined within the CAD application files to be mapped to user-defined custom Windchill attributes. This feature is available for all CAD systems except Pro/ENGINEER. Pro/ENGINEER designated parameters will be mapped to Windchill attributes. Also available is mapping of MS Word and Excel summary and custom properties to soft attributes.

Database Mapping

Database mapping allows for the use of a comma separated value (CSV) file to define your migration information including: primary content file path, secondary content file paths, out-of-the-box attributes and soft attributes.

Supported Attribute Mappings

Document Name Mapping

- Windchill restrictions on length. Document name is restricted to 200 bytes.

Document Number Mapping

- Family Table instance document numbers can not be mapped.
- Pro/E file document numbers can not be mapped.
- Windchill length restriction of 200 bytes.
- Auto numbering restriction TBD

Part Name Mapping

- Windchill length restriction of 60 bytes.

Part Number Mapping

- Family table instance part numbers can not be mapped.
- Pro/E file part numbers can not be mapped.
- Windchill length restriction of 40 bytes.
- Auto numbering restriction TBD

Lifecycle Template Mapping

- Must be a valid defined lifecycle in Windchill

Lifecycle State Mapping

- Must be a valid lifecycle state within the assigned lifecycle template.

Revision Mapping

- Map to any revision in the versioning scheme.
- Optionally, force any revision value to load initially. Upon the next revision of the object in Windchill the first valid revision in the defined versioning scheme will be assigned to the object.

Iterations Mapping

- Iterations are used for ordering when loading multiple iterations of one object.
- Iterations are not directly mapped into Windchill are only used for correct content ordering when loading multiple iterations of one object.

Document Subtype Mapping

- Document subtypes can be mapped using the fully qualified path of the subtype in a database mapping configuration. Document subtype support must be available in Windchill for the objects to be sub typed.

Part Subtype Mapping

- Part subtypes can be mapped using the fully qualified path of the subtype in a database mapping configuration.

Destination Folder Mapping

- Define the destination context and folder for
 - All Objects at once
 - All Documents and All Parts
 - Individual Files
- If the defined folder does not exist within a given context Legend can create it for you.

Soft Attributes (IBA) Mapping

All soft attributes of type:

- String
- Boolean
- Date/Time
- Pro/E Designated Parameters of type:
 - Float
 - Boolean
 - String
 - Integer

Can be mapped using Legend.

Cage Code

- Set Cage Code in a WADM environment
- Can be set manually or mapped from an attribute or property

Data Filtering

Unsupported Data Types

Any file type not defined in the Legend configuration file for Legend processing will be filtered out of the batch and identified in html reports.

Zero Byte Files

Files in the batch that have zero bytes will be filtered out and identified in html reports.

Filter Duplicates

Legend will identify and report on duplicate files by filename which are in the same batch for loading. The user can configure this option to filter or not.



Legend will identify and report on duplicate objects in Windchill based on document number (need to identify with testing).

Missing Dependencies

Legend will walk the structure of your CAD model files and search for required dependencies within the load batch and within Windchill to determine if all required dependencies exist before loading the CAD model file. Legend will identify and report any missing dependencies in the html reports.

Data Loading

CAD Document Creation

Legend will create an EPMDocument in Windchill for each CAD file that passes the data filtering stages.

Family Table CAD files will have EPMFamilyTable relationships created in Windchill for storing the generic and instances.

CAD Document Updates

Legend can be configured to update existing EPMDocuments. If the existing EPMDocument is at the desired revision, it will be iterated with new content and attributes. If the existing document is at a previous revision it will be revised then iterated with new content and attributes.

Part Creation

Legend can be configured to create a WTPart for every EPMDocument and Family Table generic and instance. Legend can also be configured to not create any WTParts.

Pre-loaded Parts

Legend can be configured to link to and update existing WTParts. If the existing WTPart is at the desired revision, it will be iterated with new attributes and linked to the document. If the existing part is at a previous revision it will be revised then iterated with attributes and links.

Part Describes Links

- Legend can create active describe links between EPMDocuments assemblies and components and WTParts
- Legend can create passive describe links between EPMDocuments assemblies and components and WTParts



- Legend can create passive describe links between EPMDocument drawings and WTParts

Structure Building (Linking)

CAD Structure

Legend will create CAD structure in Windchill by walking the CAD model structure and creating the appropriate member links and create appropriate uses and reference links which will create correct usage and reference relationships between your Windchill EPMDocuments.

Bill of Materials

Legend will also create structure between your WTPart objects. If an EPMDocument is being actively linked to a new or exiting WTPart, Legend will propagate the EPMDocument's usage structure and soft attributes to the WTPart.

Link Drawings to Parts

Legend can be configured to link CAD drawing files to an existing WTPart of the EPMDocument which the drawing describes.

Secondary Content

Legend can load secondary content items such as configuration files, design tables, or other misc files using the database mapping method.

Family Table

Only flat family tables are supported. Nested family tables are loaded into Windchill as a flattened single level family table.

Reporting

Checker Report

The checker report runs first and will report on unsupported file types and files with zero bytes.

Reader Report

The reader report will report on files that can be and files that can not be loaded into Windchill. For files that can be loaded the reports will indicate the context and folder into which the objects will be loaded. It will also denote the attributes that have been captured and will be assigned to the objects in Windchill.

For files that cannot be loaded the reports will indicate the number of passed files that can be loaded and the number of failed files. When a file fails the reader, the



reports will comment on why the file has failed (i.e. missing dependencies, object already exists in Windchill, corrupt file, etc.)

Loader Report

The loader report will identify all the files that successfully loaded into Windchill and the files that passed the Reader but did not load into Windchill. For the failed files, Legend will attempt to identify why the file was unable to load into Windchill.



2 Pro/ENGINEER Features

This chapter lists and describes all of the Pro/ENGINEER specific features of Legend.



Version Support

- Pro/ENGINEER 2001
- Pro/ENGINEER Wildfire 1
- Pro/ENGINEER Wildfire 2
- Pro/ENGINEER Wildfire 3 (J01,K01 Compatibility)

Wildfire's Windchill Integration Compatibility

Legend uses the same method to read and load Pro/ENGINEER files into Windchill as Wildfire. This ensures Legend loaded Pro/ENGINEER files will be compatible with the Pro/ENGINEER Wildfire's Windchill integration.

Only J01 and K01 data models are supported. The WF3 L01 data model is not fully supported.

Features

- Legend can be configured to ignore non-required dependencies in Pro/E files so the models will load regardless of missing non-required dependencies.
- Legend can be configured to add soft attributes other than those from designated parameters.
- Pro/E files can be loaded without having the Pro/E application installed on the Legend client.
- Populate soft attributes with like named designated Pro/E parameters
- Supports family tables
- Create and link to new or existing WTParts
- Designate Pro/E parameters (VerDes)
- Verify Pro/E Family Table instances (VerDes).

3 CATIA V5 Features

This chapter lists and describes all of the CATIA V5 specific features of Legend.



Version Support

- CATIA V5 R15
- CATIA V5 R16
- CATIA V4 components are supported when they are running through a CATIA V5 environment and are part of a CATIA V5 assembly

Features

- Support for CATPart, CATProduct and CATDrawing file types.
- Legend will capture CATIA attributes and map them to soft attributes.
- Usage and reference links are modeled in Windchill.
- Catalog files can be loaded as secondary content.
- Design tables are modeled as family tables within Windchill. In addition, the design table file is loaded as secondary content
- Supports external reference relationships
- Supports drawing reference relationships



4 SolidWorks Features

This chapter lists and describes all of the SolidWorks specific features of Legend.



Version Support

SolidWorks typically supports files created in previous versions. Files that are supported in SolidWorks 2005 can be migrated using Legend. Note: Files authored in version other than SolidWorks 2005 will retain their ability to be opened in their authoring application version even though they are required to load through Solid Works 2005.

- *SolidWorks Pre-2005
- SolidWorks 2005
- SolidWorks 2006

*Files must be able to be opened and read with SolidWorks 2006

Features

- Support for SLDPRT, SLDASM, SLDDRW file types
- Legend captures summary information (properties)
- Legend captures custom properties
- Usage and references links are modeled in Windchill
- External reference relationships are supported as reference links in Windchill
- Configurations and External Design Tables will be modeled as Family Tables in Windchill. The configuration files will be loaded as secondary content.



5 AutoCAD Features

This chapter lists and describes all of the AutoCAD specific features of Legend.



Version Support

AutoCAD typically supports files created in previous versions. Files that are supported in AutoCAD 2006 can be migrated using Legend. Note: Files authored in version other than AutoCAD 2005 will retain their ability to be opened in their authoring application version even though they are required to load through AutoCAD 2006.

- *AutoCAD 2004
- *AutoCAD 2005
- AutoCAD 2006

*Files must be able to be open and read with AutoCAD 2006

Features

- Legend will capture attributes by "Tag" name. Unique tag names are required with Legend for predictable operation.
- AutoCAD Xref relationships are captured and modeled in Windchill as reference links
- MDT and AutoCAD LT are not supported



6 Unigraphics Features

Unigraphics is a newly supported CAD System. Please call I-Cubed for information about Unigraphics support and features.



Version Support

Unigraphics typically supports files created in previous versions. Files that are supported in Unigraphics NX4 can be migrated using Legend. Note: Files authored in versions other Unigraphics NX4 will retain their ability to be opened in their authoring application version even though they are required to load through Unigraphics NX4.

- *Unigraphics Pre-NX4
- Unigraphics NX4

*Files must be able to be open and read with Unigraphics NX4

Features

- Legend captures UG properties
- Legend identifies Reference Sets as Family Tables. UG Family Tables are not supported as Family Tables.
- Assemblies are identified by parts linked to other parts using Assembly mode add component
- Supports external reference relationships.



7 MicroStation Features

This chapter lists and describes all of the MicroStation specific features of Legend.



Version Support

- MicroStation/J v7

Features

- DGN-DGN relationships are modeled as reference links in Windchill.
- Raster files and hidden line files are loaded as secondary content.



8 OneSpace Drafting (ME10) Features

This chapter lists and describes all of the Designer Drafting specific features of Legend.



Version Support

- Older versions back to ME10 v10 are available upon request
- ME10 v13.2

Features

- Infotexts are captured as metadata and propagated to Windchill attributes.



About I-Cubed

Since 1984, when we first began to open up CAD information to the world, I-Cubed has been at the forefront of the CAD intelligence revolution. The combination of CAD systems, operating systems, hardware platforms, and network security creates a complex and challenging environment. I-Cubed bridges the divide between CAD data and the enterprise, enabling corporations and industries to more effectively leverage information assets in streamlining development processes.

CAD Integration with PLM

I-Cubed provides CAD integration capabilities into Product Lifecycle Management (PLM) solutions to companies all over the world. As a component of PLM, our CAD integration products automatically extract valuable engineering and product information from complex CAD models and drawings files and publish this information to PLM systems. By supporting multiple versions of all major CAD systems running on both Windows and UNIX operating systems, I-Cubed serves as a single source solution for CAD integration solutions.

Loading Legacy Data

Loading legacy data is a critical component of implementing PLM. I-Cubed's Legend product migrates legacy data into PLM systems for multiple applications, including all major CAD systems, MS Office, and Adobe Acrobat. Additionally, Legend's pre-processing tools and reports assist customers in evaluating data cleanliness allowing more informed choices earlier in the process. By using off the shelf tools, customers forego the risks and costs associated with custom scripts and receive the benefit of cost predictability. For complex migrations Legend is the clear choice.

Professional Services

I-Cubed's focus is delivering packaged technology solutions in lieu of open ended consulting engagements. Our services model encourages fixed cost projects coupled with a structured knowledge transfer program that fosters customer independence. Over the past decade we have partnered with F1000 customers to migrate design assets to PLM. Our experience with multiCAD environments is delivered via Legend Loader and CAD integration QuickStarts.

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