

GUIDE

erwin Data Modeler

SAP PowerDesigner to erwin DM
Migration Guide



Legal Notices

This Documentation, which includes embedded help systems and electronically distributed materials (hereinafter referred to as the "Documentation"), is for your informational purposes only and is subject to change or withdrawal by Quest Software, Inc and/or its affiliates at any time. This Documentation is proprietary information of Quest Software, Inc and/or its affiliates and may not be copied, transferred, reproduced, disclosed, modified or duplicated, in whole or in part, without the prior written consent of Quest Software, Inc and/or its affiliates

If you are a licensed user of the software product(s) addressed in the Documentation, you may print or otherwise make available a reasonable number of copies of the Documentation for internal use by you and your employees in connection with that software, provided that all Quest Software, Inc and/or its affiliates copyright notices and legends are affixed to each reproduced copy.

The right to print or otherwise make available copies of the Documentation is limited to the period during which the applicable license for such software remains in full force and effect. Should the license terminate for any reason, it is your responsibility to certify in writing to Quest Software, Inc and/or its affiliates that all copies and partial copies of the Documentation have been returned to Quest Software, Inc and/or its affiliates or destroyed.

TO THE EXTENT PERMITTED BY APPLICABLE LAW, QUEST SOFTWARE, INC. PROVIDES THIS DOCUMENTATION "AS IS" WITHOUT WARRANTY OF ANY KIND, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NONINFRINGEMENT. IN NO EVENT WILL QUEST SOFTWARE, INC. BE LIABLE TO YOU OR ANY THIRD PARTY FOR ANY LOSS OR DAMAGE, DIRECT OR INDIRECT, FROM THE USE OF THIS DOCUMENTATION, INCLUDING WITHOUT LIMITATION, LOST PROFITS, LOST INVESTMENT, BUSINESS INTERRUPTION, GOODWILL, OR LOST DATA, EVEN IF QUEST SOFTWARE, INC. IS EXPRESSLY ADVISED IN ADVANCE OF THE POSSIBILITY OF SUCH LOSS OR DAMAGE.

The use of any software product referenced in the Documentation is governed by the applicable license agreement and such license agreement is not modified in any way by the terms of this notice.

The manufacturer of this Documentation is Quest Software, Inc and/or its affiliates.

Provided with "Restricted Rights." Use, duplication or disclosure by the United States Government is subject to the restrictions set forth in FAR Sections 12.212, 52.227-14, and 52.227-19(c) (1) - (2) and DFARS Section 252.227-7014(b)(3), as applicable, or their successors.

Copyright © 2026 Quest Software, Inc and/or its affiliates All rights reserved. All trademarks, trade names, service marks, and logos referenced herein belong to their respective companies.

Contact erwin

Understanding your Support

Review [support maintenance programs and offerings](#).

Registering for Support

Access the [erwin support](#) site and register for product support.

Accessing Technical Support

For your convenience, erwin provides easy access to "One Stop" support for all editions of [erwin Data Modeler](#), and includes the following:

- Online and telephone contact information for technical assistance and customer services
- Information about user communities and forums
- Product and documentation downloads
- erwin Support policies and guidelines
- Other helpful resources appropriate for your product

For information about other erwin products, visit [erwin by Quest Products page](#).

Provide Feedback

If you have comments or questions, or feedback about erwin product documentation, you can send a message to techpubs@erwin.com.

News and Events

Visit [News and Events](#) to get up-to-date news, announcements, and events. View video demos and read up on customer success stories and articles by industry experts.

Contents

SAP PowerDesigner to erwin DM Migration	5
Preparing for Migration	7
Migrating Models in Bulk	7
Model Shortcut Synchronization	13
Best Practices	14

SAP PowerDesigner to erwin DM Migration

As SAP PowerDesigner approaches end of life, you need a scalable, efficient path to migrate your existing data models to a modern, fully supported data modeling platform. erwin Data Modeler (erwin DM) provides bulk migration capabilities through the erwin DM API (erwinDMAPI.exe), enabling you to migrate large volumes of SAP PowerDesigner models while preserving model structure, metadata, relationships, and business rules.

Unlike the one-at-a-time approach, the erwin DM API is designed for enterprise-scale migration initiatives that involve dozens, hundreds, or even thousands of models. This approach helps accelerate migration projects, reduce manual effort, and establish a repeatable process for large-scale model conversion.

The migration framework supports commonly used SAP PowerDesigner model types mentioned in the following table and converts them into erwin DM for further refinement, governance, and ongoing management.

Model Type	Purpose
Conceptual Models (CDM)	High-level business view of organizational data
Logical Models (LDM)	Technology-independent representation of data structures
Physical Models (PDM)	Database-specific implementation models

PowerDesigner commonly stores these models in .cdm, .ldm, and .pdm formats, along with language-specific variants.

The migration process is designed to preserve critical model information, including:

- Entities and tables
- Attributes and columns
- Data types
- Relationships
- Primary keys
- Foreign keys
- Constraints

SAP PowerDesigner to erwin DM Migration

- Business metadata
- Model hierarchies

Except for the following terms, the migration maintains consistent terms in models migrated to erwin DM:

Term in SAP PowerDesigner	Term in erwin DM
Extended Attributes	User Defined Properties (UDP)
Stereotypes	User Defined Properties (UDP)

Key Benefits:

- **Faster Migration Execution:** Convert large numbers of models in a structured and repeatable manner, reducing the time required for migration projects.
- **Reduced Manual Effort:** Automate repetitive migration activities that would otherwise require manual processing of individual files.
- **Improved Consistency:** Apply the same migration process across all models, helping ensure consistent conversion outcomes.
- **Enterprise Scalability:** Support migration initiatives that span multiple business units, departments, or entire organizations.
- **Modernization Readiness:** Move data assets into a modern, supported modeling environment that can support governance, collaboration, and future data initiatives.

Use the following table to decide the migration method:

Scenario	Recommended Approach	Why
Migrating a handful of models for evaluation	UI-based migration	Quick validation with minimal setup
Migrating dozens of models from a business unit	Bulk Migration API	Reduces repetitive processing
Migrating hundreds of models across the enterprise	Bulk Migration API	Improves scalability and consistency
Repeating migrations during a phased rollout	Bulk Migration API	Supports automation and repeatability
Modernization program replacing SAP	Bulk Migration API	Provides a structured

Scenario	Recommended Approach	Why
PowerDesigner organization-wide	with PSO support	enterprise migration path

Preparing for Migration

erwin DM ships with a command-line utility, `erwinDMAPI.exe`, that converts PowerDesigner model files (.cdm, .ldm, and .pdm) into native erwin models (.erwin) in a single batch operation. The utility uses the embedded MITI/MIMB metadata bridge to:

- Read each PowerDesigner file in a source folder
- Extract entities, attributes, data types, comments, and relationships
- Resolve and synchronize shortcuts (cross-model references)
- Write a native .erwin model for each source file

Before you start, confirm the following requirements.

Requirement	Detail
erwin DM is installed	Default path: C:\Program Files\erwin\Data Modeler r10
erwinDMAPI.exe is available	Located in the erwin DM installation directory
Source models are exported	SAP PowerDesigner models saved as .cdm, .ldm, or .pdm files
Source folder is accessible	All source files placed in one folder. For example, if you are migrating logical models, C:\Power-Designer\logical
Permissions are granted	Run PowerShell as an administrator, with write access to the source folder

Migrating Models in Bulk

This section walks you through the migration process with logical models as an example. Follow the same approach for other model types.

To migrate logical models (.ldm) in bulk, follow these steps:

SAP PowerDesigner to erwin DM Migration

1. Place all SAP PowerDesigner logical models you want to migrate in a single folder.

In this example, C:\PowerDesigner\logical contains two source files, Erwin Test Model.ldm and Erwin Test Model Shortcut.ldm.

Name	Date modified	Type	Size
Erwin Test Model Shortcut	6/3/2026 11:24 PM	LDM File	31 KB
Erwin Test Model	6/3/2026 11:22 PM	LDM File	67 KB

2. Open Windows PowerShell as an administrator and run the following command to change to the erwin DM installation directory.

```
cd "C:\Program Files\erwin\Data Modeler r10"
```

3. Run the following command to confirm that the erwinDMAPI.exe file is available.

```
dir *.exe
```

erwinDMAPI.exe appears in the listing alongside erwin.exe and the other executables.

```
PS C:\Program Files\erwin\Data Modeler r10> dir *.exe

Directory: C:\Program Files\erwin\Data Modeler r10

Mode                LastWriteTime         Length Name
----                -
-a----            5/12/2026 11:19 AM        1154640 EMIRuntimeLog.exe
-a----            6/2/2026  8:31 PM        16254032 erwin.exe
-a----            5/12/2026 11:24 AM        4113864 erwinActionConvertor.exe
-a----            6/2/2026  8:31 PM         962128 erwinDMAPI.exe
-a----            5/12/2026 11:25 AM        2462288 erwinScheduler.exe
-a----            6/2/2026  8:31 PM         225360 GenEAX.exe

PS C:\Program Files\erwin\Data Modeler r10> |
```

4. Run erwinDMAPI.exe with the -MitiLoad switch, point it at the source folder, and add -ldm to indicate PowerDesigner logical models using the following command:

```
.\erwinDMAPI.exe -MitiLoad C:\PowerDesigner\logical -ldm
```

Argument	Meaning
-MitiLoad <folder>	Runs the MITI bridge against every model file in <folder>
-ldm	Treats the source files as PowerDesigner logical models (.ldm)

```
PS C:\Program Files\erwin\Data Modeler r10> dir *.exe

Directory: C:\Program Files\erwin\Data Modeler r10

Mode                LastWriteTime         Length Name
----                -
-a-----         5/12/2026  11:19 AM        1154640 EMIRuntimeLog.exe
-a-----         6/2/2026   8:31 PM        16254032 erwin.exe
-a-----         5/12/2026  11:24 AM        4113864 erwinActionConverter.exe
-a-----         6/2/2026   8:31 PM         962128 erwinDMAPI.exe
-a-----         5/12/2026  11:25 AM        2462288 erwinScheduler.exe
-a-----         6/2/2026   8:31 PM         225360 GenEAX.exe

PS C:\Program Files\erwin\Data Modeler r10> .\erwinDMAPI.exe -MitiLoad C:\PowerDesigner\logical -ldm
```

The utility processes each model in sequence (Processing (1/2), Processing (2/2), and so on). For every file, it:

1. Extracts data types and comments
2. Pre-processes shortcuts
3. Converts the model to an intermediate .xml file through the MIMB bridge
4. Imports the XML and writes a native .erwin file
5. Post-processes the model and injects or synchronizes shortcuts

A brief Creating model dialog appears while each model is built.

```
PS C:\Program Files\erwin\Data Modeler r10> .\erwinDMAPI.exe -Mitiload C:\PowerDesigner\logical -ldm
MITI(conversion) started.
MITI(conversion) Processing (1/2) (C:\PowerDesigner\logical\Erwin Test Model Shortcut.ldm) ...
dmapi_pdm_processor::extract_ldm_datatypes: extracted 2 attribute datatype(s)
dmapi_pdm_processor::extract_ldm_comments: extracted 2 comment(s)
MITI(shortcut) Pre-processing: extracted 0 shortcut(s) from (C:\PowerDesigner\logical\Erwin Test Model
MITI(conversion) MIMB target='C:\PowerDesigner\logical\Erwin Test Model Shortcut.xml' is
MITI(conversion) post-MIMB: intermediate exists=1, target exists=0, bExist=1
MITI(conversion) Completed (1/2) (C:\PowerDesigner\logical\Erwin Test Model Shortcut.ldm) ...
MITI(conversion) Processing (2/2) (C:\PowerDesigner\logical\Erwin Test Model Shortcut.ldm) ...
dmapi_pdm_processor::extract_ldm_datatypes: extracted 2 attribute datatype(s)
dmapi_pdm_processor::extract_ldm_comments: extracted 2 comment(s)
dmapi_pdm_processor::extract_ldm_relations: extracted 0 relationship(s)
MITI(shortcut) Pre-processing: extracted 0 shortcut(s) from (C:\PowerDesigner\logical\Erwin Test Model
MITI(conversion) MIMB target='C:\PowerDesigner\logical\Erwin Test Model Shortcut.xml' isPDXML=1
MITI(conversion) post-MIMB: intermediate exists=1, target exists=0, bExist=1
MITI(conversion) Completed (2/2) (C:\PowerDesigner\logical\Erwin Test Model Shortcut.ldm) ...
dmapi_processor::post_process: using 'Entity' mode (found Entity_Groups in EMX).
MITI(shortcut) post_process: 0 shortcut(s) to inject, kNodeName='Entity', kPropsName='EntityProps'
dmapi_pdm_processor::inject_comments: Definition->Comment on 0, Comment->Definition on 2 element(s)
dmapi_processor::post_process: Model_Type change skipped (shortcuts present, type=Logical)
MITI(shortcut) Post-processing: injected 1 shortcut(s) into (C:\PowerDesigner\logical\Erwin Test Model
Importing model from XML...
```

When the process ends, the utility displays a message, MITI (conversion) ended.

5. Run the following command to verify the exit code.

```
echo $LASTEXITCODE
```

```
Imported model from XML successfully. (XML: C:\PowerDesigner\logical\Erwin Test Model Shortcut.erwin)
MITI(import): Successfully converted to erwin file format (C:\PowerDesigner\logical\Erwin Test Model Shortcut.erwin)
dmapi_processor::post_process: using 'Entity' mode (found Entity_Groups in EMX).
MITI(shortcut) post_process: 1 shortcut(s) to inject, kNodeName='Entity', kPropsName='EntityProps'
MITI(shortcut) post_process: find_by_name('Entity', 'Address Type') -> FOUND
MITI(shortcut) copy_source_attrs: copied 1 attribute(s) from 'Address Type' in C:\PowerDesigner\logical\Erwin Test Model
Shortcut.xml
MITI(shortcut) copy_source_attrs: copied Key_Group_Groups from source
dmapi_pdm_processor::inject_ldm_comments: injected Comment+Definition on 2 element(s)
dmapi_pdm_processor::inject_comments: Definition->Comment on 0, Comment->Definition on 8 element(s)
dmapi_pdm_processor::inject_ldm_datatypes: injected Logical_Data_Type on 2 attribute(s)
dmapi_pdm_processor::inject_fk_physical_names: set Physical_Name on 1 Relationship(s) (1 new, 0 corrected)
dmapi_processor::post_process: Model_Type change skipped (shortcuts present, type=Logical)
MITI(shortcut) Post-processing: injected 2 shortcut(s) into (C:\PowerDesigner\logical\Erwin Test Model.xml)
Importing model from XML...
Imported model from XML successfully. (XML: C:\PowerDesigner\logical\Erwin Test Model.erwin)
MITI(import): Successfully converted to erwin file format (C:\PowerDesigner\logical\Erwin Test Model.erwin)
MITI(shortcut) Post-import: SyncShortcuts for 1 model(s)...
MITI(shortcut) SyncShortcuts: model (C:\PowerDesigner\logical\Erwin Test Model.erwin) with 1 shortcut(s)
MITI(shortcut) Post-import: sync'd 1 shortcuts in (C:\PowerDesigner\logical\Erwin Test Model.erwin)
MITI(conversion) ended.
PS C:\Program Files\erwin\Data Modeler r10> echo %errorlevel%
0
PS C:\Program Files\erwin\Data Modeler r10> echo $LASTEXITCODE
0
PS C:\Program Files\erwin\Data Modeler r10>
```

A value of 0 indicates success.

6. Navigate to the source folder and review the generated files.

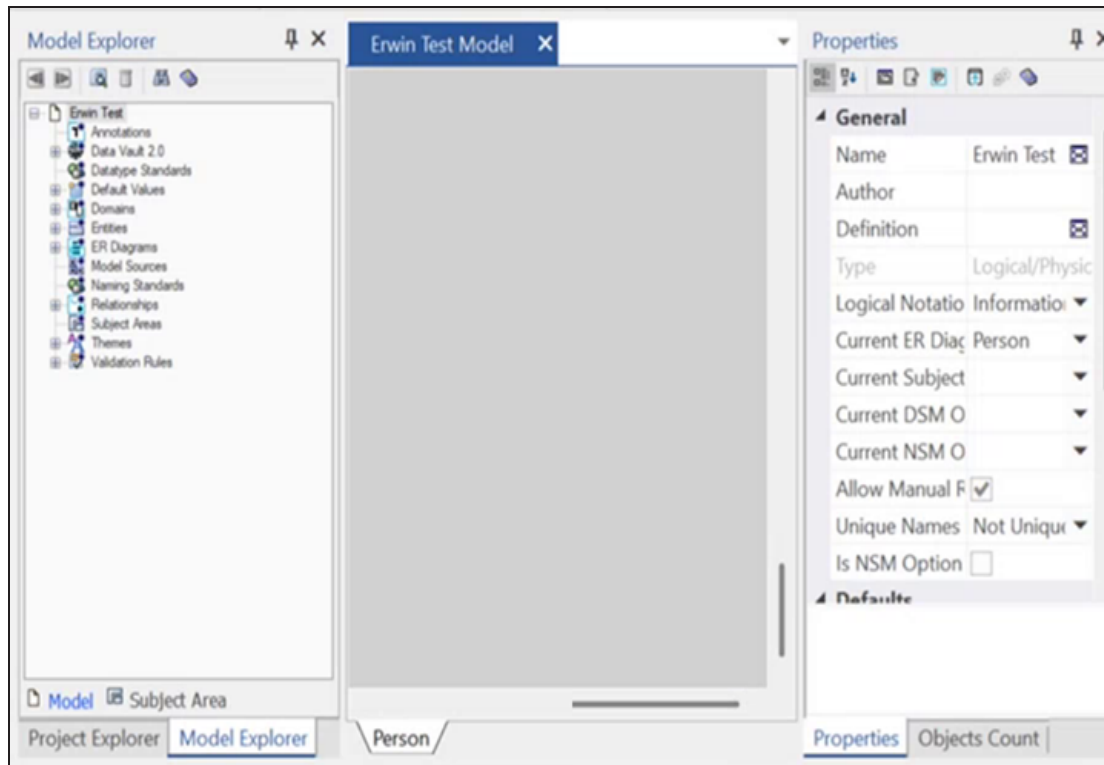
Name	Date modified	Type	Size
 Erwin Test Model Shortcut	6/18/2026 2:37 AM	erwin Model	38 KB
 Erwin Test Model Shortcut	6/3/2026 11:24 PM	LDM File	31 KB
 Erwin Test Model Shortcut	6/18/2026 2:37 AM	Microsoft Edge HTM...	17 KB
 Erwin Test Model Shortcut_ERR1	6/18/2026 2:37 AM	Text Document	1 KB
 Erwin Test Model	6/18/2026 2:37 AM	erwin Model	55 KB
 Erwin Test Model	6/3/2026 11:22 PM	LDM File	67 KB
 Erwin Test Model	6/18/2026 2:37 AM	Microsoft Edge HTM...	63 KB
 Erwin Test Model_ERR1	6/18/2026 2:37 AM	Text Document	3 KB

For each PowerDesigner model, the utility produces the following files.

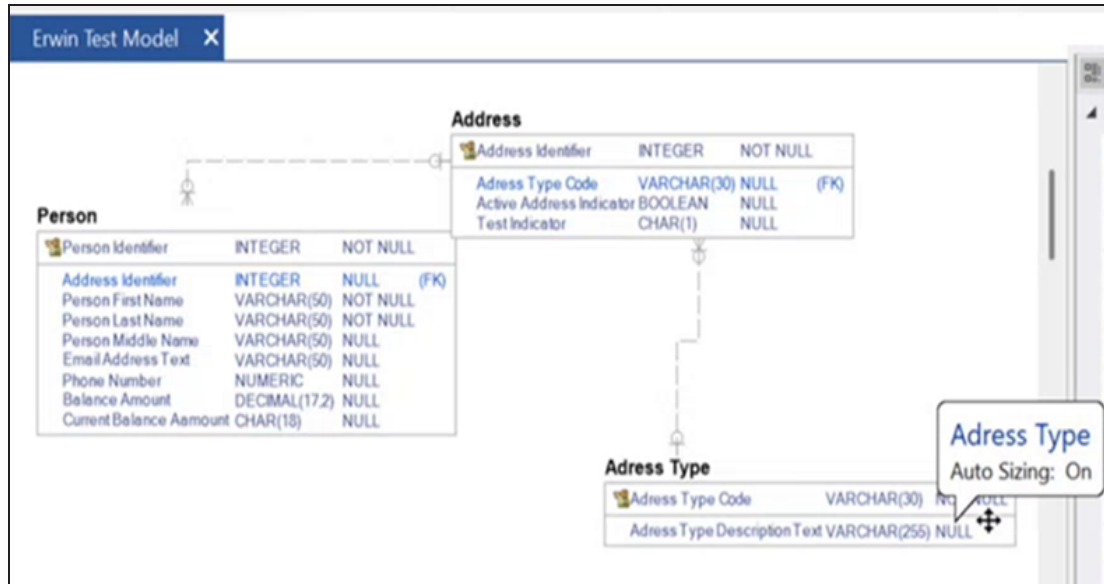
File	Purpose
<Model>.erwin	The migrated native erwin model, your deliverable
<Model>.xml	Intermediate MIMB conversion file, safe to archive or delete
<Model>_ERR1.txt	Per-model conversion log, review it for warnings and errors

Always open the _ERR1.txt logs to check for objects that were skipped, remapped, or flagged during conversion.

7. Open each generated .erwin file in erwin DM and confirm that the model migrated correctly.
In Model Explorer, confirm that objects such as entities, domains, relationships, and subject areas are populated.



Open the ER diagram and verify that entities, attributes, keys, and relationships match the original PowerDesigner design.



Once all your migrated models are verified, you can start working on them in erwin DM. This completes the SAP PowerDesigner to erwin DM bulk model migration process.

Model Shortcut Synchronization

SAP PowerDesigner models often use shortcuts that are references to objects that are available in other models. During conversion, the migration process runs a SyncShortcuts step to re-link these references across the migrated models. If a shortcut cannot be resolved, the log reports an error similar to the following:

MITI(shortcut) SyncShortcut: Exception in sync shortcut 'Address Type': Persistence Units Component ! Failed to access a file ... Access denied.

To resolve the error, follow these steps:

1. Ensure all related models, both the shortcut source and target, are in the same -MitiLoad folder so that references can be resolved.
2. Confirm that no target .erwin file is open or locked, and that you have write access to the folder.
3. If a shortcut still fails to sync, use the erwin SCAPI scripting API to update the shortcut's source-model property and re-run the sync.
4. After you update the shortcut source model, the sync completes successfully and reports

IsSuccess: True.

```
PS C:\Users\      PowerDesigner> .\updt_shortcut.ps1
=== Connecting to SCAPI ===
API Version:  SCAPI Version 9.0 (10.10.00.21664)
Opened source model: Erwin Test Model Shortcut
True
Opened target model: Erwin Test
True
Found entity 'Adress Type' with ObjectId: {6A22C019-0000-0000-0000-000000000008}+00000000
Shortcut sync : IsSuccess True
Shortcut Source Entity Id : {6A22C07C-0000-0000-0000-000000000002}+00000000
True
True
True
True
True
Sessions closed
```

Best Practices

To get the best results from the migration process, follow these practices:

Recommendation	Benefit
Start with a pilot migration	Identify issues before large-scale execution
Migrate in phases	Simplifies validation and issue resolution
Maintain migration logs	Improves traceability and troubleshooting
Validate after each batch	Prevents issues from accumulating
Prioritize critical models first	Delivers business value early
Establish governance standards after migration	Improves long-term model quality