

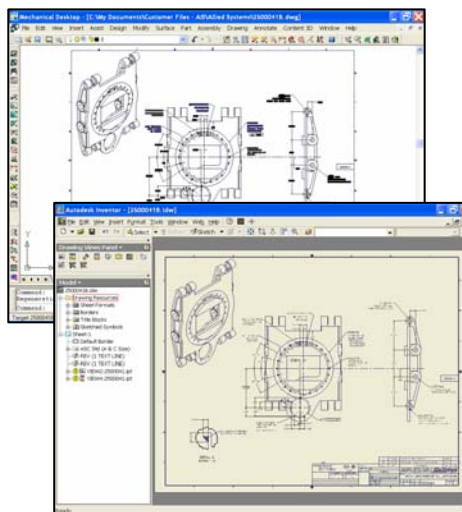
# Migrating Autodesk Mechanical Desktop Data Sets to Autodesk Inventor

Autodesk Inventor® 10 software includes significant enhancements that simplify the migration of Autodesk® Mechanical Desktop® data sets. You can reuse Mechanical Desktop models and drawings as parts, assemblies, and drawings in Autodesk Inventor software while maintaining their original design, constraints, and drawing relationships. This migration functionality supports automatic drawing view creation and recognizes model-to-drawing associativity, including annotations, scenes, and unit settings.

**These capabilities make the transition from Autodesk Mechanical Desktop data sets easy and productive.**

Use the new Task Scheduler to schedule data migrations of AutoCAD®, Mechanical Desktop, and Autodesk Inventor data sets. A comprehensive reporting system monitors the progress of the migration and builds a log file showing completed files as well as files that require review or modification before migration.

This white paper focuses on the best practices for reusing and maintaining original associative design relationships as Autodesk Mechanical Desktop data sets are migrated to Autodesk Inventor software.



## Migration Considerations

The migration from Autodesk Mechanical Desktop 2006 to Autodesk Inventor 10 automatically transfers most part, assembly, and drawing data sets with model and drawing associativity. Depending on the data set, however, some data does not migrate automatically. In these cases, the software completes as much information transfer as possible and records pertinent information in the migration log file. Here are some things to consider during migration:

- Broken views, base section views, and breakout section views from Autodesk Mechanical Desktop are migrated as base views.
- Exploded views are migrated from Mechanical Desktop as unexploded views (no tweaks applied).
- The migration discards (AMPARDIMS) from Mechanical Desktop and automatically creates associative model dimensions in the Autodesk Inventor data set.
- The Move with Parent option in Autodesk Inventor is different from that in Mechanical Desktop. If Move with Parent is selected in Mechanical Desktop, Autodesk Inventor aligns all views according to the view type.
- If a parent view is deleted in the Mechanical Desktop file, a child view is not created during translation.

- Centerlines and center marks are automatically generated during translation, so they may not be the same as in the Mechanical Desktop view.
- Radial section views have broken alignment.
- Features created with AMBEND functionality in Mechanical Desktop migrate as associative base parts and drawings. You can generate flat patterns in Autodesk Inventor for sheet metal parts.

## Preparing Autodesk Mechanical Desktop Designs for Migration

Before migrating any data sets, back up all data and save it in a secure location. Move the data set used in the migration to a temporary location, preferably a local drive on the computer performing the migration. During migration, production teams should not have access to the data set. The machine performing the migration requires the latest updates for Autodesk Inventor 10 and Autodesk Mechanical Desktop 2006. (Check for the latest hot fixes and service packs at [www.autodesk.com/support](http://www.autodesk.com/support)). If you use Autodesk® Vault or Autodesk® Productstream™ software, check out the Mechanical Desktop data set before editing and migration.

To prepare data sets for migration, it is important to migrate all the associative Mechanical Desktop files to Autodesk Mechanical Desktop 2006—the latest release of the software. It ships as part of the Autodesk Inventor® Series 10 and Autodesk Inventor® Professional 10 applications. Make sure that all file links are resolved and that the assembly relationships work as expected. To complete the migration to Mechanical Desktop 2006, load the top-level Mechanical Desktop assembly; update the assembly, scenes, and layouts; and then save the data before beginning the Autodesk Inventor migration. In this way, you guarantee the most straightforward and successful transition of associative data.

**Note:** While Mechanical Desktop 2005 datasets can be migrated using this capability, for best practices, Autodesk recommends using the latest version of Mechanical Desktop 2006 and Autodesk Inventor 10 with the latest hot fixes and service packs.

## The Migration Process

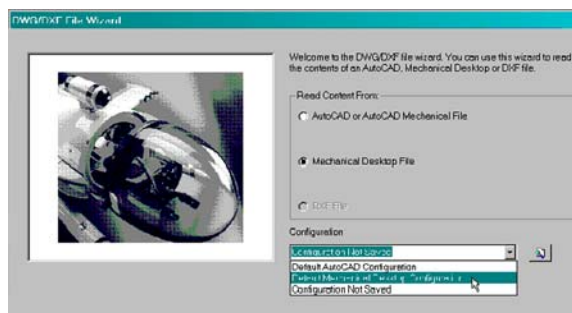
You can migrate Autodesk Mechanical Desktop data sets on demand or by using the Autodesk Inventor Task Scheduler.

### On-Demand Migration

To migrate data on demand, use the File>Open method. The migration of the Mechanical Desktop data to the latest release of Mechanical Desktop is recommended, as explained in the previous section.

Use the DWG/DXF File wizard to import Autodesk Mechanical Desktop data, including parts, assemblies, and drawings.

1. Click File>Open.
2. In the Open dialog box, change the file type to DWG, and then select the file to start the DWG/DXF File wizard.
3. On the DWG/DXF File Wizard page, verify that the file type is Mechanical Desktop.

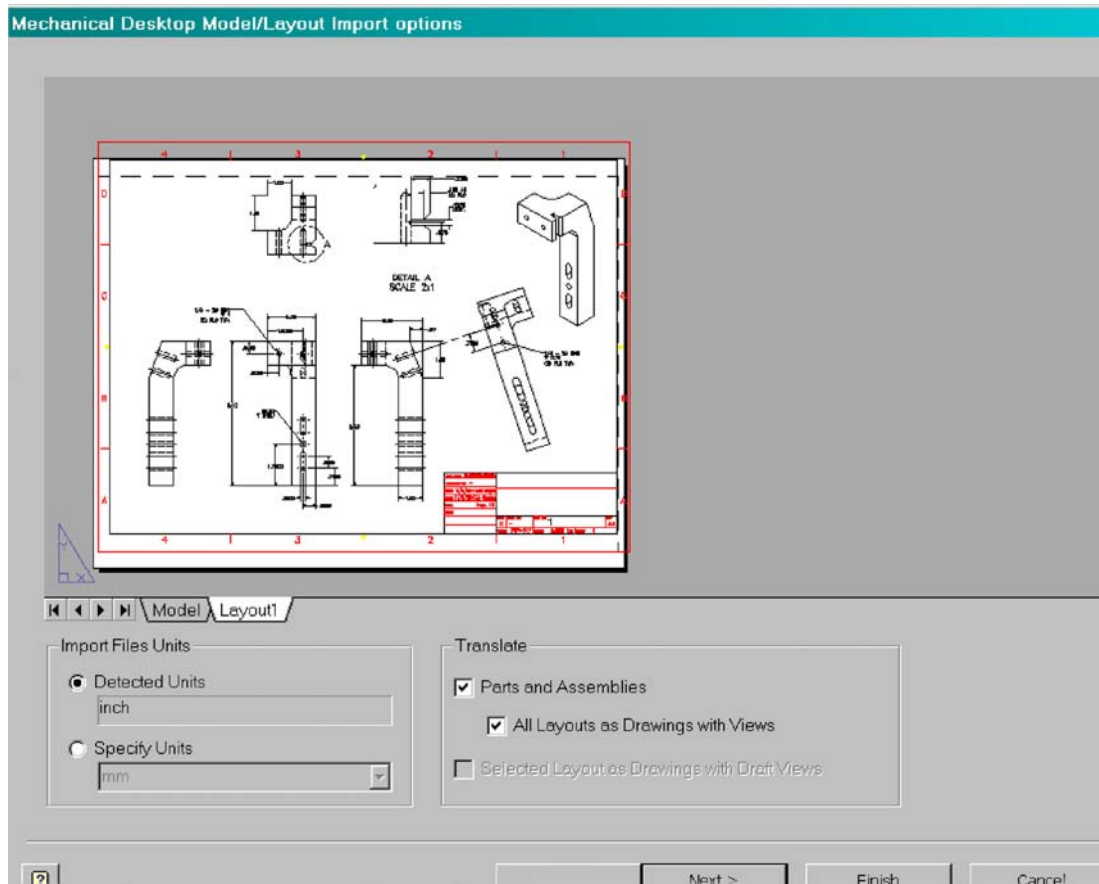


## MIGRATING AUTODESK MECHANICAL DESKTOP DATA SETS TO AUTODESK INVENTOR

4. Click Next.
5. On the Mechanical Desktop Model/Layout Import Options Model Layout/Import Options page, specify the data to translate. Click the Layout1 tab to enter options:
6. In the Import File Units box, select either Specify Units to use a unit setting based on the block insert units (INSUNITS) system variable in the DWG file. If the block insert units (INSUNITS) system variable in the DWG file is unitless or set to an unsupported unit, the value of the Measurement variable (inch or mm) is used as Detected Units.
7. In the Translate box, clear the Parts and Assemblies check box to skip parts and assemblies.

**Note:** To translate layouts into Autodesk Inventor drawing views and annotations, select All Layouts as Drawings with Views. Each DWG file with layouts to translate creates a separate IDW file with one sheet per layout.

To translate a selected layout into 2D geometry, choose Selected Layouts as Drawings with Draft Views. You must select a layout before continuing.



8. Click Next.

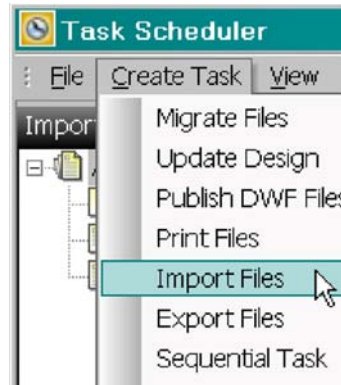
9. On the Mechanical Desktop Import Destination Options page, click Finish to accept the defaults or set individual options, as follows:
  - In Assembly Options, accept Referenced Components Only or select All Component Definitions.
  - In Part Options, accept As Features and then specify how to translate parts with unsupported features. If you choose Translate Body Only then it will translate the Brep body with no features.
  - In Drawings with Views Options, accept Selected and External Files or select Selected File Only.
  - In Output Options, specify what to do if a duplicate output file is found. Accept Overwrite or select Use Existing File (to retain existing data).
  - In Templates, accept the defaults or browse to select different templates.
  - In Destination Folder, accept the specified folder or browse to a different folder.
  - In Save to Configuration, browse to select a configuration, if appropriate.

**Note:** To save your settings for future use, save the configuration before clicking Finish.

### Scheduled Migration: Using the Task Scheduler

The Autodesk Inventor Task Scheduler makes scheduling an Autodesk Mechanical Desktop migration easy. The scheduling environment provides tools that enable migrations to occur during non-peak hours, making the most of network bandwidth. The automated migration task is set up as a data import:

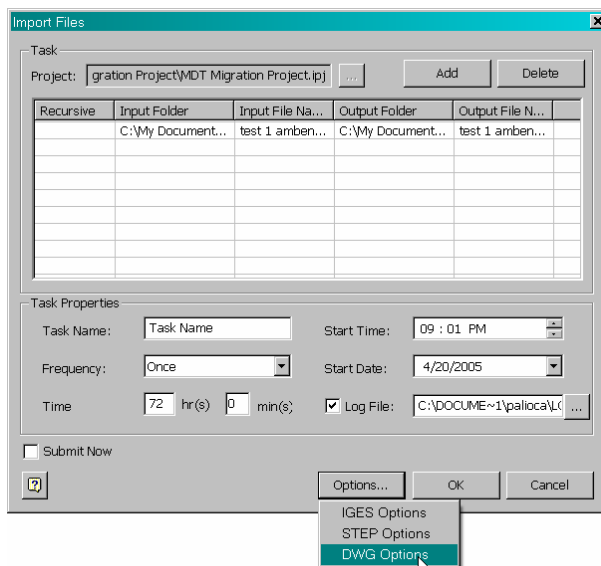
1. On the Start menu, click Programs>Autodesk>Autodesk Inventor 10>Tools>Task Scheduler.
2. On the Task Scheduler menu, click Create Task>Import Files.
3. From the Import Files menu, select the Autodesk Inventor project for the resulting migration. Click Add to select the Mechanical Desktop file or folder.



**Note:** To migrate the complete data set, select the top-level assembly Mechanical Desktop DWG file.

4. Set the start time and other pertinent information to complete the setup of the scheduled migration.

**Note:** You can schedule each file or folder, as needed.

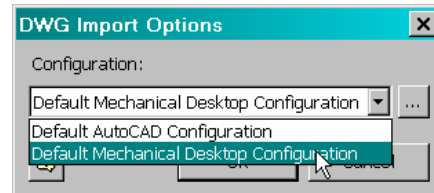


## MIGRATING AUTODESK MECHANICAL DESKTOP DATA SETS TO AUTODESK INVENTOR

- Click Options>DWG Options to set up the Mechanical Desktop configuration template for migration. A default configuration is supplied, and user-defined variations can be saved for reuse.
- Click OK, and the event is scheduled.

The Task Scheduler prompts for the system login information to run applications automatically as scheduled.

At the requested time, Autodesk Mechanical Desktop and Autodesk Inventor process the assigned migrations and log the results.



## Migration Log

When migration is complete, a dialog box asks if you want to view the log file.

The log file name is the combination of the drawing (IDW) file name, the sheet the view is on, and the name of the view. The original Autodesk Mechanical Desktop DWG file is referenced as well as the appropriate assembly (IAM) and part (IPT) files. The log file has an *.xml* extension and is located in the same folder as the translated assembly, part, or drawing files.

## Autodesk Inventor Translation Report

Tuesday, April 26, 2005 (10:2

**Selected File:** C:\My Documents\White Papers\MDT White Paper\Bracket IN.dwg  
**Translation Type:** Translate MDT Data into Inventor Components with Associative Drawings

### Components

The following table lists the parts and assemblies created in Inventor:

Name	Inventor File	DWG File
BRACKET IN	C:\My Documents\Inventor\MDT Migration Project\BRACKET IN.iam	C:\My Documents\White Papers\MDT White Paper\Bracket IN.dwg
BRACKET IN	C:\My Documents\Inventor\MDT Migration Project\BRACKET IN.ipt	

### Drawing View Results

The following table lists the drawing views that were processed in the translation:

Drawing	Sheet	View	Status
C:\My Documents\Inventor\MDT Migration Project\BRACKET IN.idw	Layout1	MEW1	Success

Result	Explanation
Successful	View and annotations were created with no errors
Successful with errors	A view was created, but it is not the correct view, or some annotations may not have been created or have errors.
Failed	No view was created; annotations may or may not have been created.

## Learn More

Find the resources and tools you need to learn more about Autodesk Inventor 10.

☑ **Autodesk Inventor on [www.autodesk.com](http://www.autodesk.com)**

☑ **In the Machine, [The Official Autodesk Inventor Blog](#):** The Autodesk Inventor Blog is where Autodesk product managers post useful or interesting information about Autodesk Inventor and related topics.

☑ **[Autodesk Inventor/Autodesk Inventor Professional Skill Builders](#)**

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☑ **[Autodesk Inventor Discussion Groups](#)**

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