

Important notes for DWG to DGN conversions

Some issues/differences in the functionality of AutoCAD and MicroStation will present issues with the drawing conversions that could either not be resolved programmatically, or have been deemed too difficult/time consuming to resolve for the LaDOTD environment. Some of these issues are outlined below:

Cells / Blocks

The blocks used in the DWG block libraries were created by converting the LaDOTD MicroStation cell library files. Data Fields are used in a number of the MicroStation cells (e.g. title blocks); however there is no direct equivalent for Data Fields in AutoCAD. There is currently no workflow equivalent for this for using AutoCAD with LaDOTD projects so any required Data Field information will need to be entered after the files are converted to MicroStation.

If you are not using the Altiva supplied MVBA to convert the DWG files to DGN (see the convert section below) you should check the filter settings for the file conversions. You will need to uncheck the Shared Cells flag in the remapping filter so that the Shared Cells from AutoCAD will change to normal cells in MicroStation.

LIN file / RSC symbology

The LaDOTD linestyles used for AutoCAD have an “-AC” suffix on their names. This is to help with conversions to MicroStation DGN format. Without the rename, MicroStation would simply load the LIN file version of these line styles and no conversion would occur. In order to force the conversion back to the RSC version of the line style, different names for line styles are required. This is not the case going from DGN to DWG as the LIN file is defined in the mapping translation file. If you see the “-AC” extension on linestyles in MicroStation DGN file, something has gone wrong with the remapping during file conversion.

There are some linestyles in MicroStation that could not be represented in AutoCAD, these have been removed from the resources, or replaced with comparable functionality in AutoCAD.

Text Issues

When MicroStation converts DWG to DGN, some text items won't change properly. For instance; since MicroStation XM, basic single line text elements are not considered to have a text line style property. So a *Continuous linetype* property set on a basic text object in AutoCAD will remain as Continuous after conversion (regardless of your remapping settings). However if the text placed in AutoCAD is multi-line (MTEXT) this linetype setting will convert correctly in the converted MicroStation text node.

Mleaders and Note Elements

MLEADERS are an AutoCAD specific element/object type. The equivalent in MicroStation is a group item called a Note; containing a dimension, a line, and a text element. Since this standard was designed to map from AutoCAD to MicroStation, it does not allow for MLEADERS. However, the basic AutoCAD LEADER object was used in the LaDOTD CADconform database for AutoCAD as these should convert to DGN as valid elements.

Solids

SOLIDS are a specific AutoCAD object type. MicroStation has fill types which are properties of an element, i.e. a shape, but since there is no direct equivalent feature in MicroStation,, SOLIDS are not defined in the LaDOTD CADconform database for AutoCAD.

Patterns

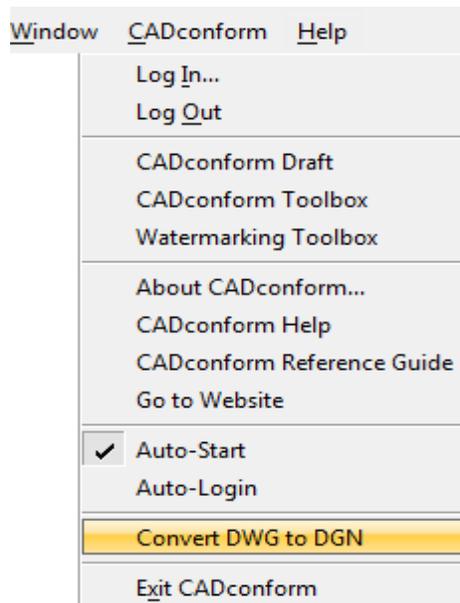
The patterns (.pat files) in AutoCAD are very different from MicroStation patterns. Rather than attempt to create comparable patterns in AutoCAD that will not convert directly to the MicroStation patterns, these have been removed from the AutoCAD side of the standards. Any required patterning should be performed in MicroStation after the files have been converted.

Convert DWG to DGN

The remapping file required to convert DWG files to DGN is delivered with the MicroStation drafting standards installer. The procedure is to draft, check/fix the DWG using the delivered resources and CADconform database for AutoCAD. Then save the DWG to the correct AutoCAD file format version that will open in your version of MicroStation.

- For example, you can save the file to AutoCAD version 2010 format if you are running MicroStation V8i SELECTseries 2. If using an earlier version of MicroStation, try saving to the AutoCAD 2007 file format.

Open the DWG file inside of MicroStation, Log In to CADconform, and choose “Convert DWG to DGN” from the CADconform pull down menu.

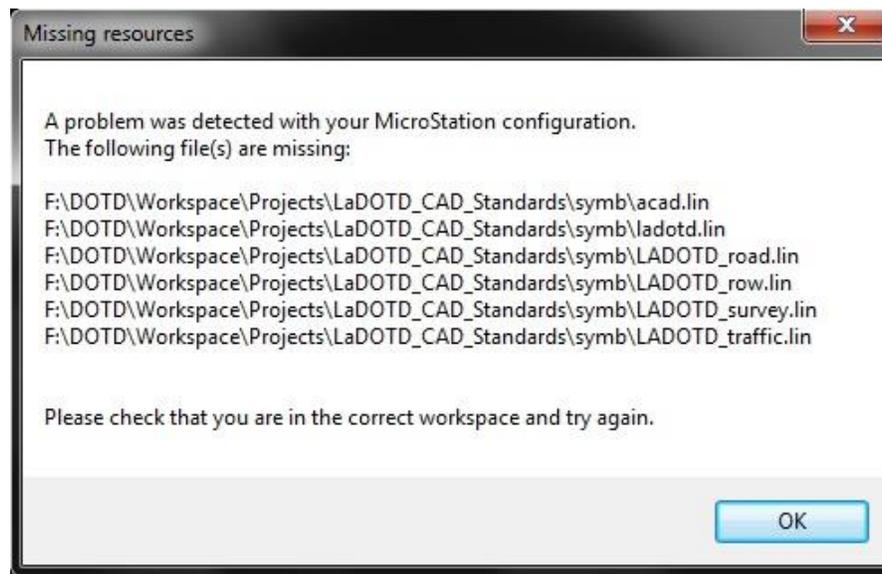


This convert process will use the delivered remapping file to convert the DWG objects to DGN elements, update certain text settings, and the color table will be changed to the MicroStation LaDOTD color table defined by the current workspace (Project) you are using.

Depending on the data in the file, there may be certain things that will need to be corrected with CADconform in MicroStation. You would also fill in required title block Data Field information, and add any required patterning, once the conversion has been performed.

Note: It is possible to run the MVBA conversion in a batch process. Please contact Altiva Software for more information on how to do this.

Below is an example of an error dialog that may pop up during conversions:



The conversion remapping file does not allow for variables to be used when defining the required resources (.LIN files, .SHX files). Users may need to update this path in the remapping file after installation if they changed the default install location.

For instance the path in the remapping file (Excel spreadsheet) says:

C:\DOTD\Workspace\Projects\LaDOTD_CAD_Standards\symb\acad.lin

But if using a network path this may be:

F:\Client Workspaces\DOTD\Workspace\Projects\LaDOTD_CAD_Standards\symb\acad.lin

The remapping file may be found (default install) under the LaDOTD workspace folder:

C:\DOTD\Workspace\Projects\LaDOTD_CAD_Standards\dwgdata\LADOTD_Standards.xls

You would need to find and replace all instances of any incorrect path in the remapping file.