Upgrading to CONNECT at ODOT

Oregon Department of Transportation is upgrading to Bentley CONNECT Edition products with a scheduled completion of June 2021. Employees involved with several pilot projects will be scheduled for initial training first. Following the initial pilot project teams, the training will be focused by region, until all employees are trained. The appropriate CONNECT software will be installed just prior to your training. This means that many employees will have both V8i and CONNECT Edition versions of software on their ODOT computer for the next couple of years.

This document will cover the following topics:

1. How the CONNECT upgrade affects MicroStation V8i and InRoads V8i users
2. How CONNECT will be launched
3. Changes to the V8i workspace for working remotely
4. How CONNECT operates to associate a file with a project (WorkSet)
5. What's in a WorkSet and where to store your DGN files
6. Where to store personal resources like cells and references so they are pre-loaded
7. Expectations for usage of CONNECT software
8. CONNECT Projects in ProjectWise

How the CONNECT upgrade affects MicroStation V8i and InRoads V8i users

Computers with MicroStation V8i will also have MicroStation CONNECT Edition installed, but V8i will continue to be the application that is launched when double-clicking on a .dgn file. Computers with InRoads V8i (and MicroStation V8i) installed will have both MicroStation CONNECT Edition and OpenRoads Designer CONNECT Edition installed on them. Again, .dgn files will continue to be associated with MicroStation V8i.

- ✓ CONNECT software will be installed on your computer just prior to your training.
- ✓ CONNECT software will not take the file association of DGNs.
- ✓ The ODOT_CONNECT Configuration will be copied to your C: drive after the software is installed (logon script).
- ✓ Consultants can already download the ODOT_CONNECT Configuration from ODOT's FTP site: ftp://ftp.odot.state.or.us/isb/appeng/CONNECT/

CONNECT software using the ODOT_CONNECT WorkSpace:

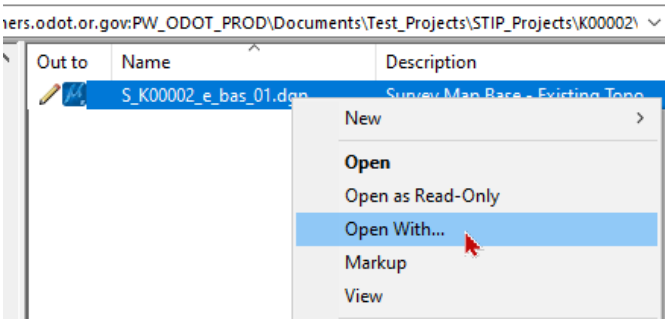
- ✓ Can perform the same tasks (now on discipline ribbons) and produce same output as you do with V8i.
- ✓ Uses ODOT CAD standards for contract plans.
- ✓ Uses ODOT design standards, including design/survey styles and symbologies.
- ✓ Uses some new levels and level symbology for new functionalities.
- ☐ Does *not* have ribbon workflows that contain new business practices using the new functionality. These will be developed over the next year with efforts spear-headed by the Standards Committees (CAD ad ORD). It is expected that guidance documentation will be produced by the discipline standards units.

How CONNECT will be launched

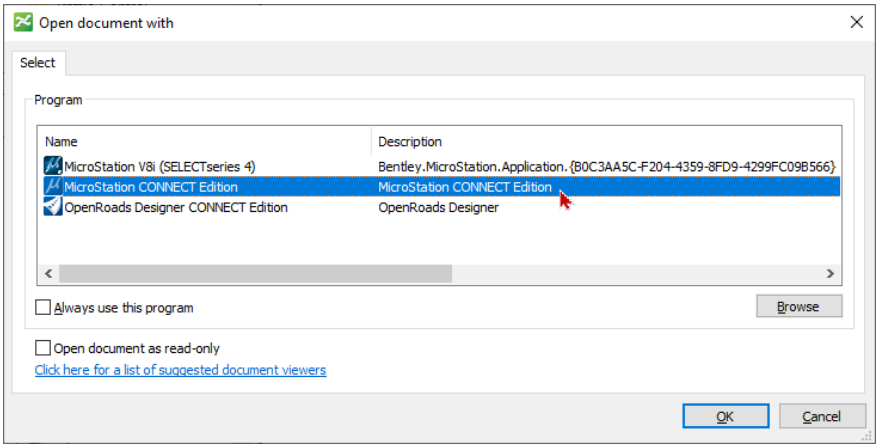
With the CONNECT Edition, the location of your .dgn file makes all the difference. Are your DGNs in ProjectWise, or are they stored outside of ProjectWise on your C: drive, server or in a crew share?

For **DGNs in ProjectWise** with the Design_Platform attribute of CONNECT

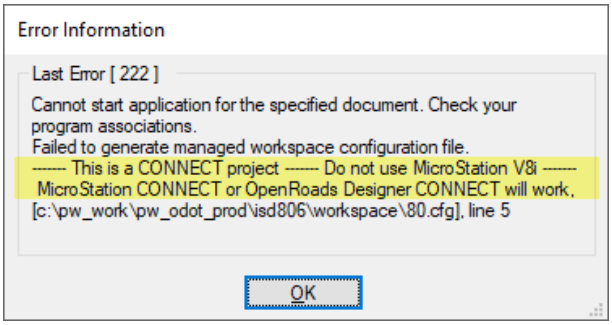
The preferred method for opening DGN files with MicroStation CONNECT or OpenRoads Designer is to first locate the file in the ProjectWise Explorer. Then, right-click on the file and select "Open With…" from the pop up menu.



On the **Open document with** dialog, select the appropriate CONNECT Edition application, then click [OK].

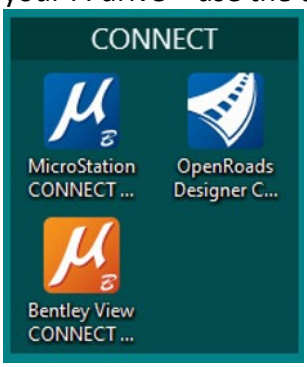


MicroStation V8i cannot be used to open DGN document in a managed work area. Attempts to use V8i in a CONNECT work area will result in the error message, "___CONNECT project – Do not use MicroStation V8i – Use MicroStation CONNECT or OpenRoads Designer CONNECT___".

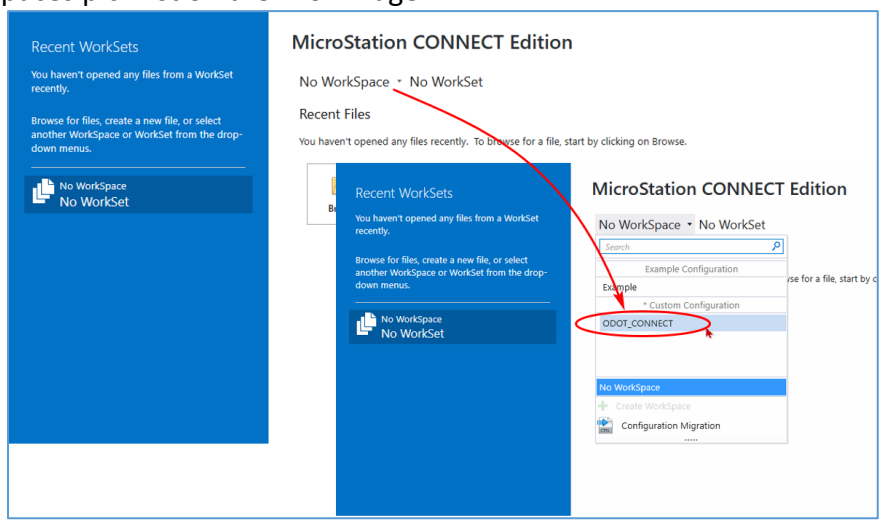


For **Non-ProjectWise DGNs**

When your DGN files are stored in the local WorkSet, your C: drive, your crew share, or your F: drive – use the desktop shortcuts:



For non-ProjectWise files, launch ORDCE or MSCE from a desktop shortcut and select ODOT_CONNECT from the *Custom Configuration section at the bottom of the WorkSpaces pick list on the Work Page.



Store your files in the ODOT WorkSet dgn folder (this is on your C: drive), create your own folders, use a crew share, or use your F: drive. You will use a WorkSet dgn folder in class.

Changes to the V8i workspace for working remotely

V8i is going totally local, so you won't have to worry about "Local" shortcuts for good performance. Knowing that ODOT will continue to use MicroStation V8i and InRoads V8i for some time, and that many employees are working remotely, the V8i workspace and your V8i user configuration will all be copied to your computer's C: drive. This will provide better performance when working in MicroStation V8i. The Local V8i workspace is kept up to date and a backup copy of your preferences is retained in the C:\WORK\MSV8i_USERCFG_Backup folder.

- ✓ The V8i workspace and your V8i user configuration (USERCFG), are no longer accessed from a server and you won't need your F: drive.
- ✓ When we copy the USERCFG folder structure, we'll get everything except for the MicroStation preference file, ODOTSS4.upf so that you start with clean preferences.
- ✓ We'll clean up the Engineering folder shortcuts.
- ✓ All shortcuts (Local and not), as well as double-clicking on a DGN in File Explorer or ProjectWise Explorer, will use LOCAL resources and run about 5 times faster, especially when opening and exiting files in ProjectWise.
- ✓ This should happen around Thanksgiving 2020.

How CONNECT operates to associate a file with a project (WorkSet)

DGN files are branded when they are opened by CONNECT Edition products. They are branded with the WorkSpace and WorkSet that was used to open it. Even if a DGN file is not stored in a WorkSet, the file is branded, and if the file is opened after choosing a different WorkSet - or with no WorkSet - you will get an alert and a chance to choose how to proceed. It is recommended that you always open DGN files with a WorkSet. Why? If there is no WorkSet selected or created, you will not be using the ODOT_CONNECT WorkSpace – and you won't see ODOT standard levels, line styles, text styles, etc.

What's in a WorkSet and where to store your DGN files

Why is the WorkSet so important? The WorkSet is simply a named folder under C:\ODOT\CONNECT_Projects\WorkSets. The WorkSet folder contains a CFG file that points to the WorkSpace - and it is the WorkSpace named ODOT_CONNECT which contains ODOT_Standards. If you choose to open MicroStation CONNECT Edition with No WorkSpace, No WorkSet - you don't get to use ODOT's levels, cell libraries, or line styles – that's why the WorkSet is important.

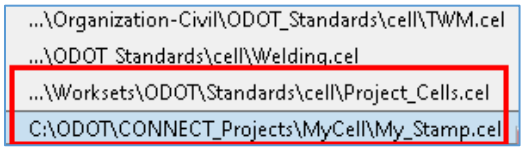
Each WorkSet has a "Standards" sub-folder for adding in project-specific things - on top of our agency (Organizational) standards - things like, template libraries or cell libraries.

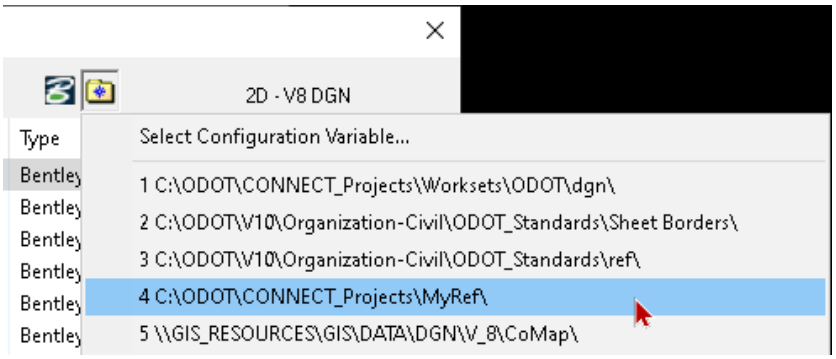
The two other sub-folders in a WorkSet are named "dgn" and "out". They are just places to store files. You might store design work in "dgn" and products like plan sheets (.dgn and .pdf) or reports (.xslx, .txt, .csv) in the "out" folder.

Remember, the WorkSets are stored on your C: drive and are not backed up. Work on CONNECT projects should be performed in ProjectWise. The local WorkSet location is provided for training and non-ProjectWise work.

Where to store personal resources like cells and references so they are pre-loaded

If you have a personal cell library, perhaps professional stamps, or files that you personally like to attach as references, you can place them into the C:\ODOT\CONNECT_Projects\MyCell or MyRef folder. These resources will be loaded and available to you whenever you use the ODOT_CONNECT WorkSpace, no matter which WorkSet you select and no matter what DGN file you open.





Expectations for usage of CONNECT software

Over the next year or so, you should:

- ✓ Use CONNECT software as often as possible.
- ✓ New STIP projects in ProjectWise will be designated as Design_Platform = CONNECT. V8i will not function in a CONNECT project in ProjectWise, you will have to use CONNECT.
- ✓ Use training resources, EAST, and ProjectWise Admins for support. Computer Support Desk is still a great way to request help.
- ✓ Work with your project team, standards committees, and discipline standards units to develop and adopt new business practices that use new functionalities to increase efficiency.
- ✓ If you need a fresh copy of the training lab files, you may email your request to odot.east@odot.state.or.us

Over the next year or so, EAST will:

- ✓ Continue to adjust the configuration to meet the requirements of the Highway disciplines.
- ✓ Configure the software to perform new discipline-specific tasks using ODOT standards.
- ✓ After the upgrade training is completed, adopt a once a month schedule for updating the CONNECT configuration.
- ✓ Add CONNECT pages to the Engineering Applications Support Team website, with user guides and tips about CONNECT software.

- ✓ Continue to host weekly webinars with Engineering Tips.

CONNECT Projects in ProjectWise

Work areas (projects) in the PW_ODOT_PROD datasource that are identified as a "CONNECT" Design_Platform are configured for DGN files to be opened *only* with CONNECT Edition products. MicroStation V8i cannot be used to open design files in a CONNECT work area.

Structure of the CONNECT Work Area (Project)

The folder structure and usage of the 1_Design folder has not changed. DGNs continue to be stored in 2_Plan_Sheets, 3_Base_Files, and in the unnumbered discipline or content folders.

In a CONNECT project, the 1_Design folder has a sibling folder named 9_WorkSet which contains project-specific standards and a WorkSet configuration file which is used during product launch.

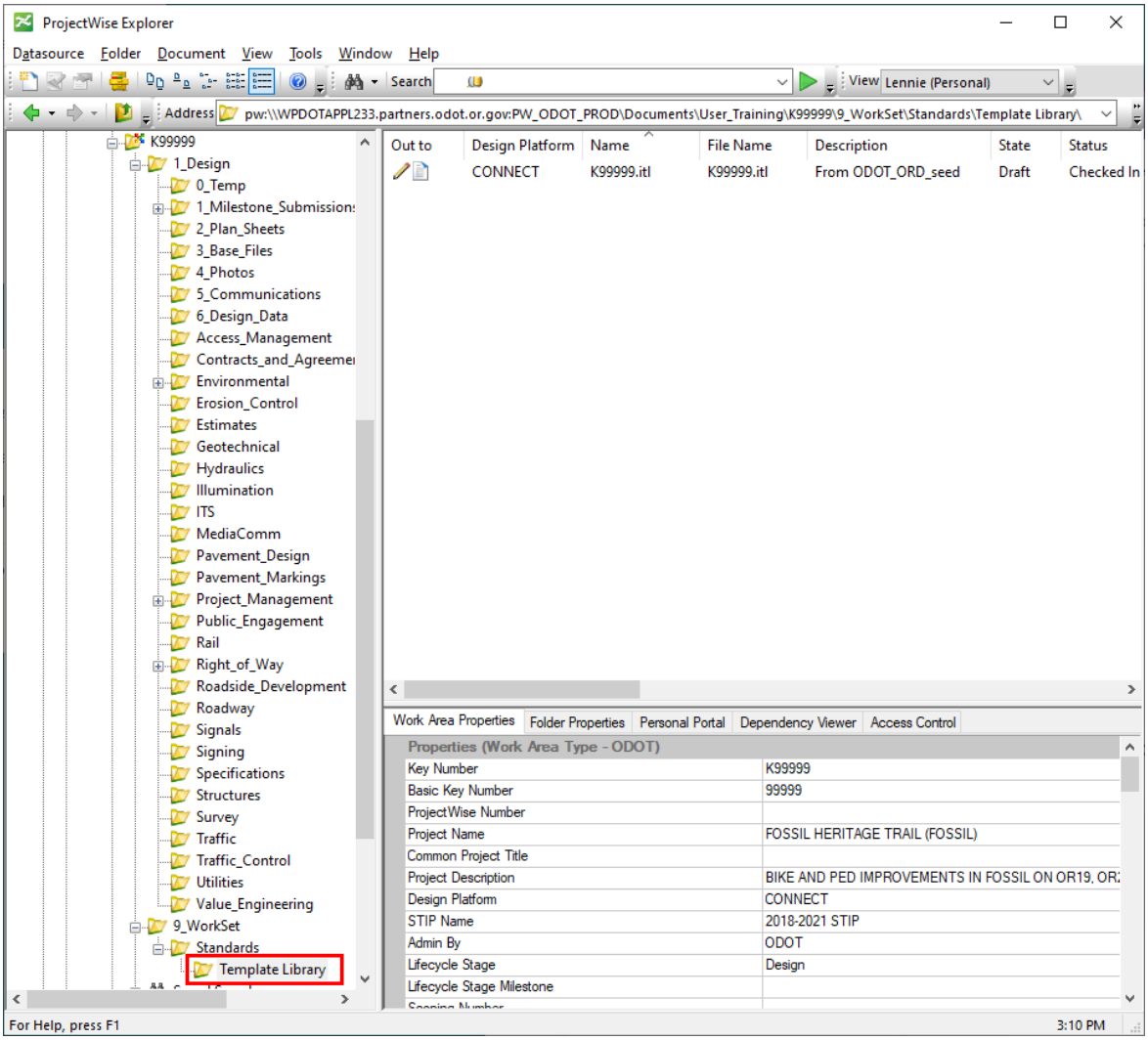
Name	File Name	Description	Design_Platform	Created
1_Design				4/1/2020 9:00:49 AM
9_WorkSet		WorkSet, Sheet Index		3/31/2020 2:08:57 PM

When using the ProjectWise Explorer to investigate documents in a CONNECT work area, the Design_Platform column will display the value "CONNECT". The Design_Platform column will appear in the ODOT view and may be added to personal views.

Name	File Name	Description	Design_Platform	Created
BR_K00001_gdcb_05	BR_K00001_gdcb_05.pdf	100 - Bridge Girder <## plan/elevation/det...	CONNECT	8/12/2020 9:31:06 AM
BR_K20485_cad_01	BR_K20485_cad_01.dgn	Bridge CAD base	CONNECT	5/20/2020 2:17:21 PM
R_K00001_cad_00.d...	R_K00001_cad_00.dgn	cad base test for xx scale	CONNECT	5/24/2020 5:17:48 PM
R_K00001_cad_01.d...	R_K00001_cad_01.dgn	cad base test for 50 scale P&P	CONNECT	5/24/2020 5:39:18 PM
R_K00001_cad_02.d...	R_K00001_cad_02.dgn	cad base test for 100 scale P&P	CONNECT	5/24/2020 5:06:33 PM
S_K20485_e_bas_01....	S_K20485_e_bas_01.dgn	TEST COPY Survey Map Base - Existing Top...	CONNECT	5/20/2020 2:16:57 PM
S_K20485_rw_bas_0...	S_K20485_rw_bas_01.dgn	TESTING COPY Survey RW Base - Existing ...	CONNECT	5/20/2020 4:36:38 PM

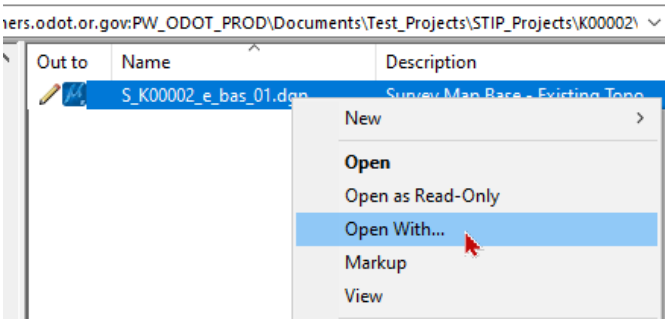
The 9_WorkSet Folder

Of particular interest to designers is the Standards\Template Library sub-folder. If a template library file exists in the Template Library sub-folder, and the name of the file matches the name of the project folder, this template library is identified as the ITL for the WorkSet. The K#####.itl in the Template Library folder will automatically be loaded when ORD is launched from any DGN in the K##### work area (project) folder structure.

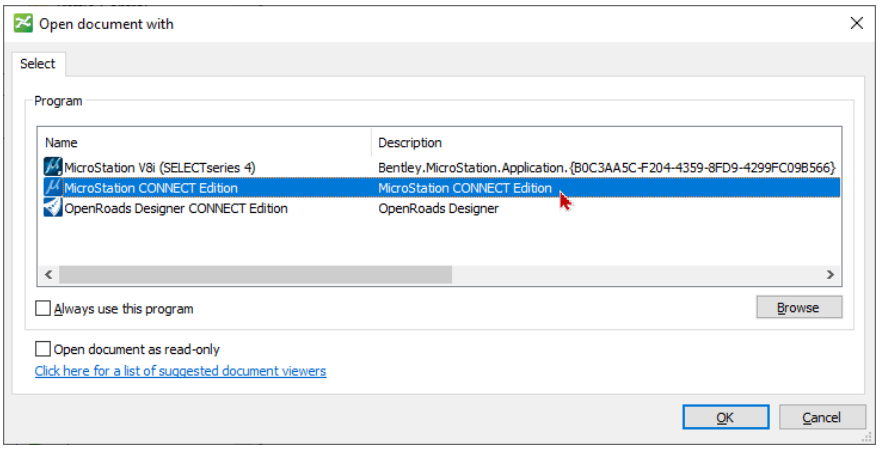


Launching MicroStation CONNECT Edition and OpenRoads Designer CE

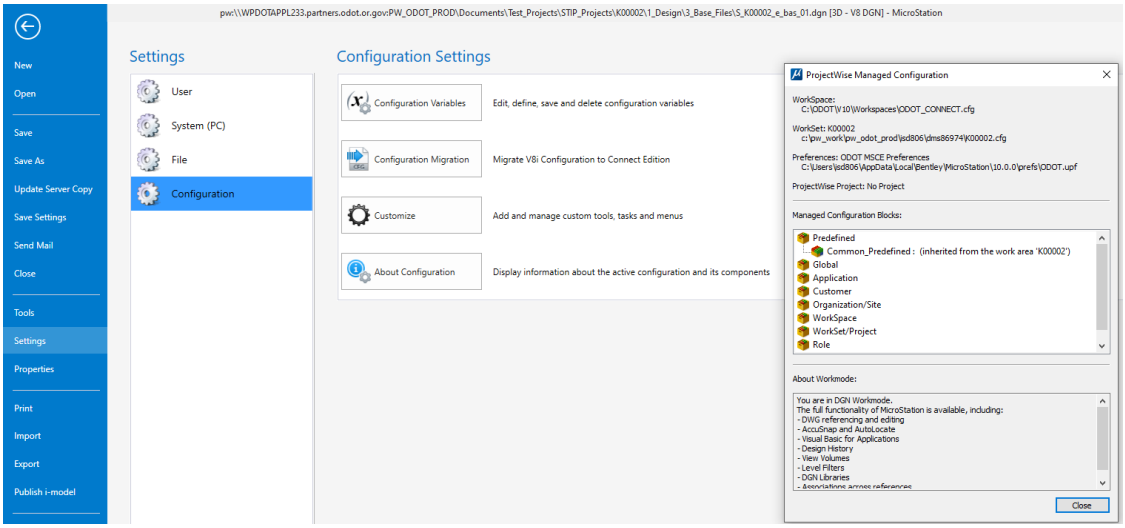
The preferred method for opening DGN files with MicroStation CONNECT or OpenRoads Designer is to first locate the file in the ProjectWise Explorer. Then, right-click on the file and select "Open With…" from the pop up menu.



On the **Open document with** dialog, select the appropriate CONNECT Edition application, then click [OK].



Once the file is open, the configuration can be verified from the Backstage. Select File>Settings>Configuration>About Configuration and you can verify that the entire ProjectWise Managed Configuration is running from your C: drive.



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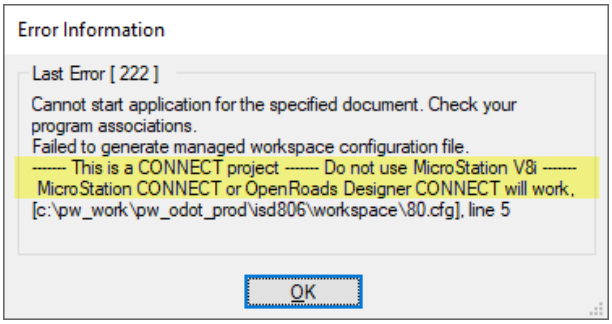


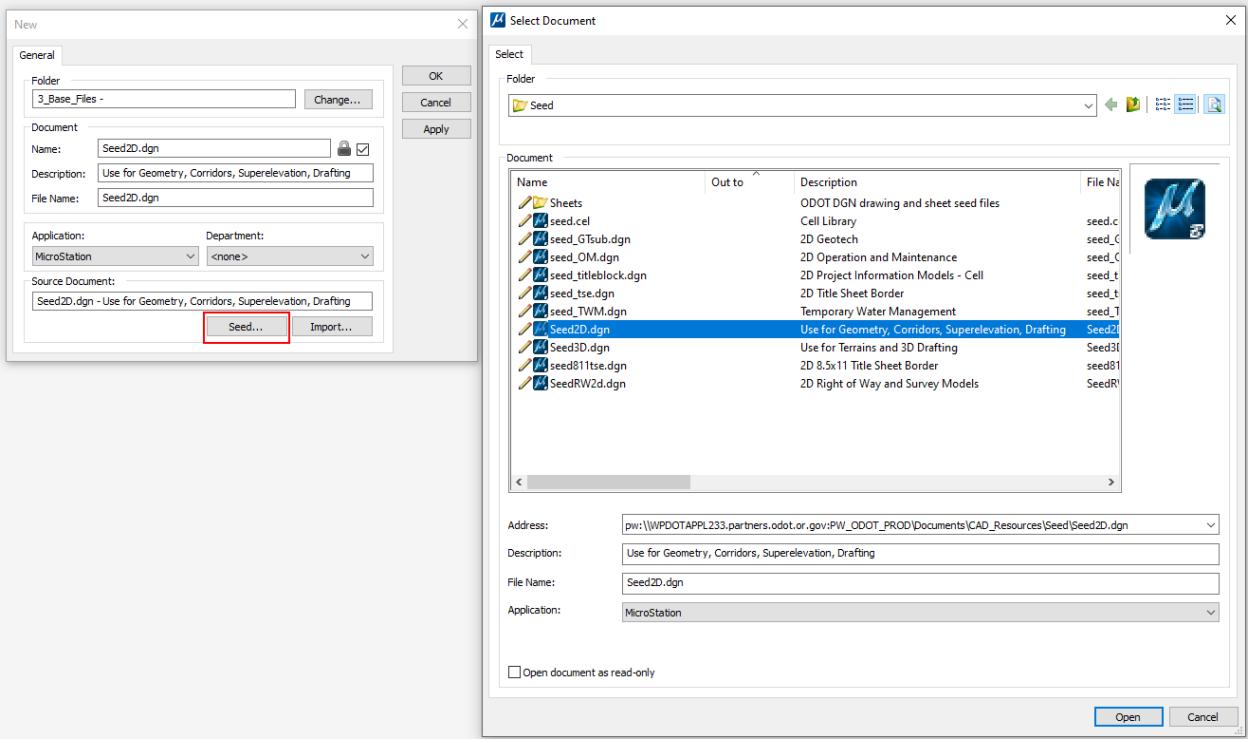
Printing Using MicroStation CONNECT Edition and OpenRoads Designer CE in ProjectWise

When creating PDFs or printing using ProjectWise, use Apply Print Styles, as these are loaded at launch through a DGNLIB. If you need to search for a different pen table, click [Cancel] on the

ProjectWise “Open Pen Table” dialog and select a pen table in a Windows “Open Pen Table” dialog, which will locate the standard pen tables in the local configuration without navigation.

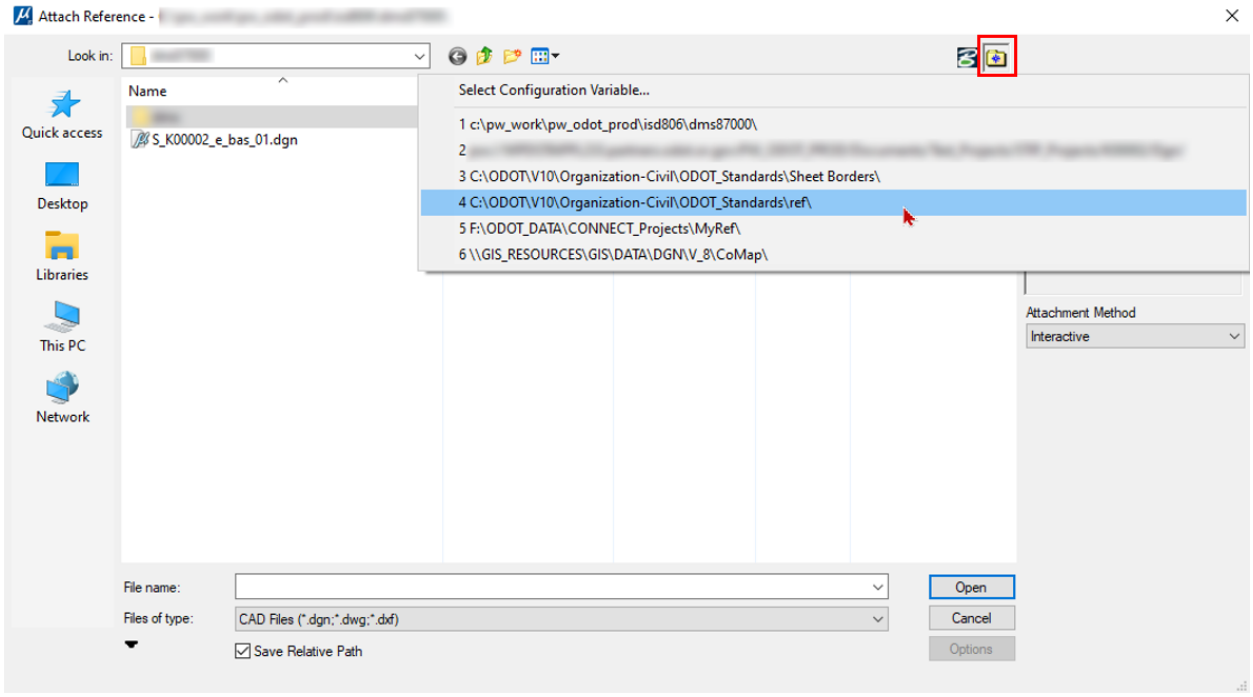
Accessing Other Resources When Using ProjectWise

DGN seed files are stored in ProjectWise in Documents\CAD_Resources\Seed and are also stored in the local configuration in C:\ODOT\V10\Organization-Civil\ODOT_Standards\Seed. When using ProjectWise, seed files may be accessed when creating new files from within a CONNECT application most easily by using No Wizard and selecting the [Seed…] button on the “New” dialog.



It is a good practice when creating DGN data in ProjectWise to use the Document Naming Tool on the document properties Attributes tab, after the document has been created and checked in. Always ensure that the document name contains the file extension and exactly matches the file name.

Standard references are stored in the local configuration in C:\ODOT\V10\Organization-Civil\ODOT_Standards\ref and can be accessed using the Directory History button after using [Cancel] to close the ProjectWise “Open” dialog. The Directory History icon is only found on the Windows “Open” dialog and is in the upper right corner.


Attach Reference -
Look in:
Quick access
Desktop
Libraries
This PC
Network
Name
S_K00002_e_bas_01.dgn
Select Configuration Variable...
1 c:\pw_work\pw_odot_prod\isd806\dms87000\
3 C:\ODOT\V10\Organization-Civil\ODOT_Standards\Sheet Borders\
4 C:\ODOT\V10\Organization-Civil\ODOT_Standards\ref\
5 F:\ODOT_DATA\CONNECT_Projects\MyRef\
6 \\GIS_RESOURCES\GIS\DATA\DGN\V_8\CoMap\
Attachment Method
Interactive
File name:
Files of type:
CAD Files (*.dgn;*.dwg;*.dxf)
Save Relative Path
Open
Cancel
Options