MONTANA
Department of Transportation

envisionCAD
EXPERIENCE THE POSSIBILITIES

Consultant Workspace

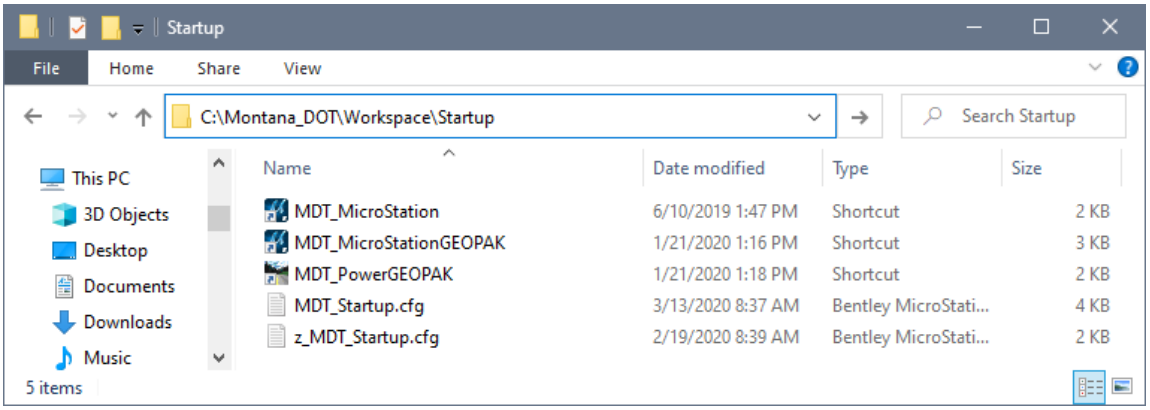
MicroStation/GEOPAK/Power GEOPAK V8i (SELECTseries 4 or 10)

Installation Instructions

Default Installation

1. After downloading the **Montana_DOT.zip** file, extract the contents to your local C: drive. All of the files will be extracted to the **C:\Montana_DOT** folder.

2. Browse to the folder **C:\Montana_DOT\Workspace\Startup** in Windows Explorer.



3. Select the shortcut file applicable to the application you are using (MicroStation, MicroStation GEOPAK, or Power GEOPAK).

4. Copy the selected shortcut file to your Windows Desktop.

5. Launch your application from this desktop shortcut to load the Montana DOT consultant workspace.

Customizing the Installation

The Montana DOT workspace has three main components:

1. Workspace, Workgroup and CADDTools standards files
2. Design files and associated resource files
3. User Preferences

The locations of all three of these components can be moved to different locations on your local C: drive or on a network drive. It is strongly recommended that the User Preferences be stored locally on the C: drive. Each user must have their own folder location for their user preferences.

It is recommended to keep notes of all customizations made to assist in workspace updates.

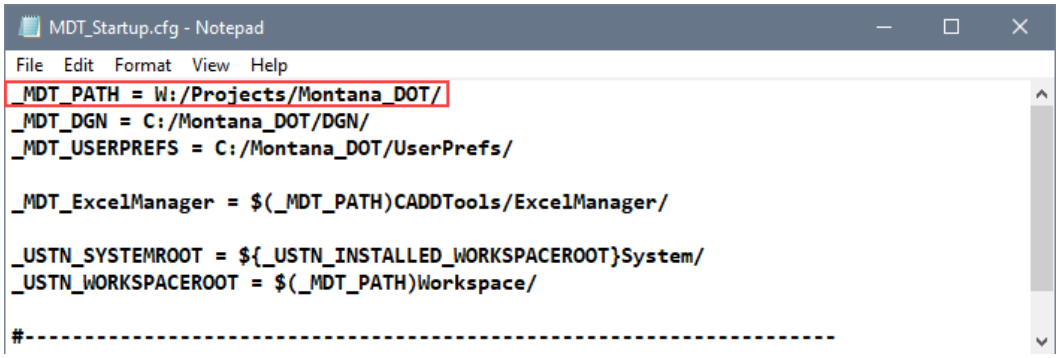
Moving the Workspace, Workgroup and CADDTools files

To move these files to a network location (example: W:\Projects\Montana_DOT):

1. Move the **C:\Montana_DOT\Workspace**, **C:\Montana_DOT\Workgroup** and **C:\Montana_DOT\CADDTools** folders to **W:\Projects\Montana_DOT**.

2. Open the file **W:\Projects\Montana_DOT\Workspace\Startup\MDT_Startup.cfg** in Notepad.

3. Change the value of the **_MDT_PATH** variable to reflect the new location of the parent folder.



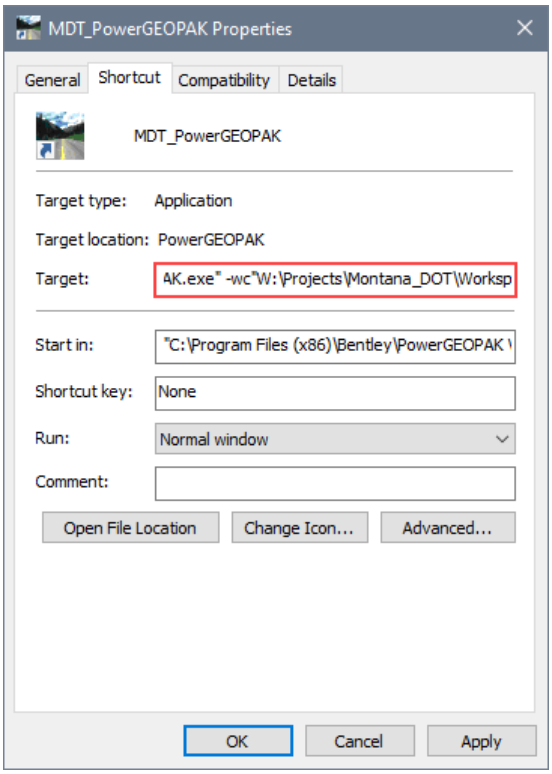
Be sure to use the forward slash character (/) in the path name definition instead of the usual backslash character. Also place a forward slash at the end of the path definition.

_MDT_ExcelManager Note:

Review and modify variables in the following files to use the CADDTools “ExcelManager” files in your working environment:

- …\BridgeDesign\XXXXXXXBRDSN001.xlsm,
- …\RoadDesign\Summary_Frames_Arial\XXXXXXXRDQMG001.xlsm, and
- …\RoadDesign\Summary_Frames_Engr\XXXXXXXRDQMG002.xlsm

4. After saving the changes to the configuration file change the Target field in your desktop shortcut to reflect the new location of the startup configuration file.



Moving the Design files

In the delivered workspace, all the design files would be stored in a single folder, regardless of the project selection. This replicates MDT's internal structure for working files as intended to function with the internal Document Management System (DMS). Adjustments may be required to work with each consultant's unique document management procedures.

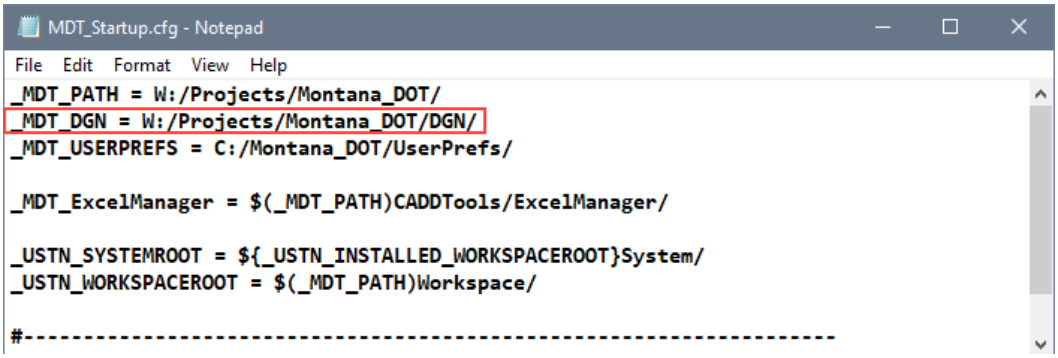
Additional information on managing design files with use of the Montana_DOT workspace can be found in the supplemental guide entitled "Design File Management".

To move these files to a network location (example: W:\Projects\Montana_DOT):

1. Move the **C:\Montana_DOT\DGN** folder to **W:\Projects\Montana_DOT**

2. Open the file **MDT_Startup.cfg** in Notepad

3. Change the value of the **_MDT_DGN** variable to reflect the new location of the DGN folder.



Be sure to use the forward slash character (/) in the path name definition instead of the usual backslash character. Also place a forward slash at the end of the path definition.

The value of the MS_RFDIR variable (location of reference files) is based off the value of the _MDT_DGN variable. Some .pcf files append Workgroup folder paths to the MS_RFDIR variable as well.

Moving the Design files to unique Project folders

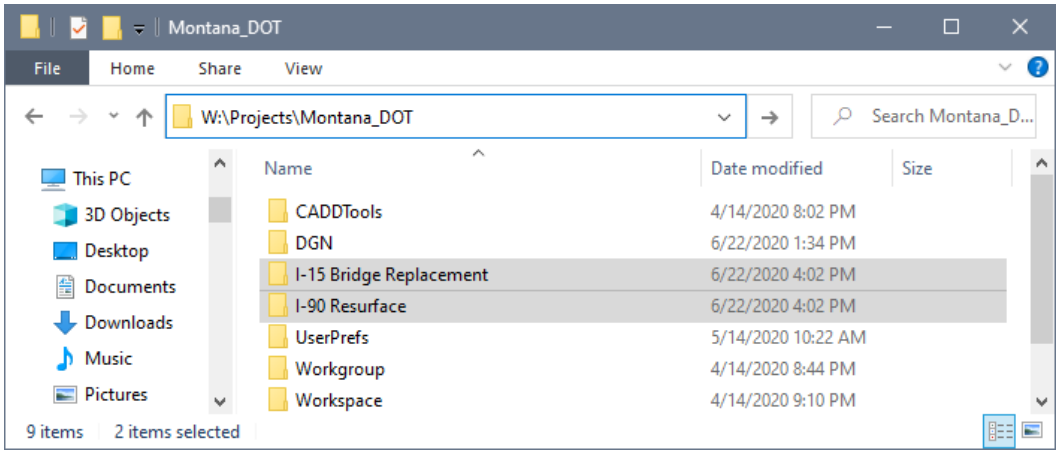
Some Consultants set up unique MicroStation project .pcf files for each MDT project. Along with the .pcf files they create a folder structure for each project elsewhere (possibly on a different network location) for storing the dgn files that are part of that project. This can be set up easily with this workspace.

In this example we will create two projects:

- I-15 Bridge Replacement
- I-90 Resurface

Continuing with the W: drive locations used in the previous examples we will create a folder for each project to store the project dgn files.

- W:\Projects\Montana_DOT\I-15 Bridge Replacement
- W:\Projects\Montana_DOT\I-90 Resurface

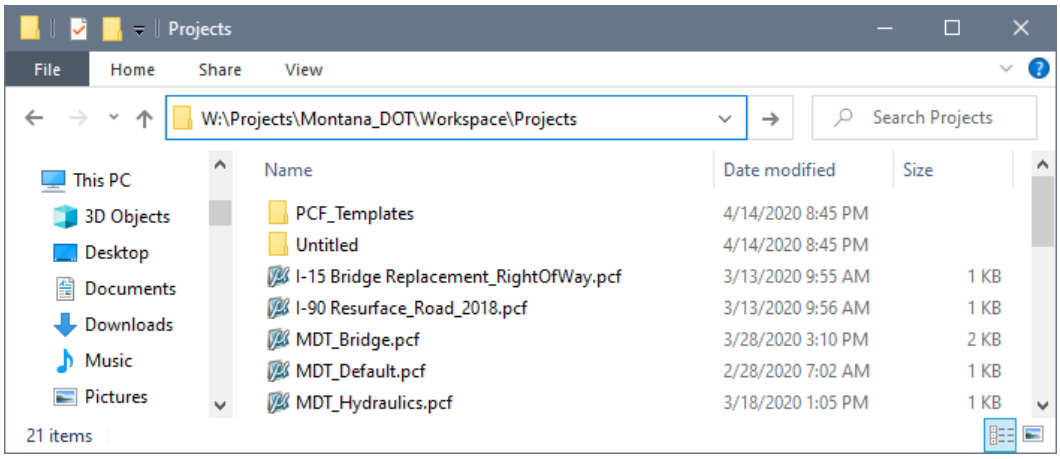


Next we will create the MicroStation Project .pcf files for these two projects:

1. Open the **W:\Projects\Montana_DOT\Workspace\Projects\PCF_Templates** folder in an Explorer window.

2. Locate the appropriate MDT Workgroup, or Discipline, .pcf file.

3. Copy the file to **W:\Projects\Montana_DOT\Workspace\Projects** and rename the .pcf file to match your project folder name created above.



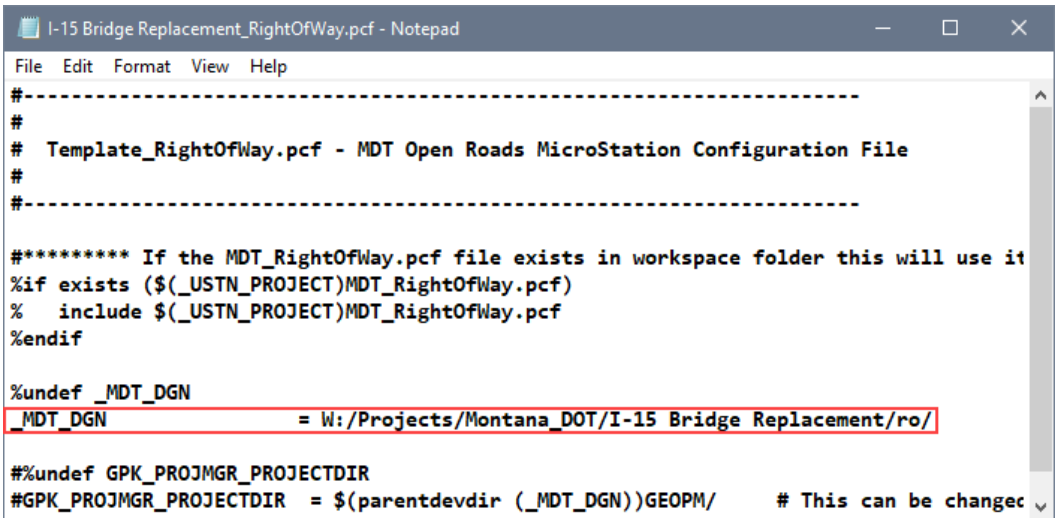
Projects that load interface_Traffic.dgnlib have menus which are dependent upon the PCF file naming. Electrical menus will not show if “Electrical” is not present in the PCF file name and similar for “Geometrics” or “Signing”.

Finally, we have to update the path of the **_MDT_DGN** configuration variable to look to the selected project folder for the design files.

1. Open the MicroStation Project .pcf files for the projects you have just created **W:\Projects\Montana_DOT\Workspace\Projects\I-15 Bridge Replacement_RightOfWay.pcf** and **I-90 Resurface_Road_2018.pcf** in Notepad.

2. Find the **_MDT_DGN** variable definition.

3. Change the value of the **_MDT_DGN** variable to reflect the new location of the DGN folder.



4. Save the file and exit Notepad.

Moving the User Preferences

Reviewing the contents of the UserPrefs folder you will notice all of the file names have a **Personal** prefix. This is the new standard for MicroStation CONNECT Edition and OpenRoads Designer.

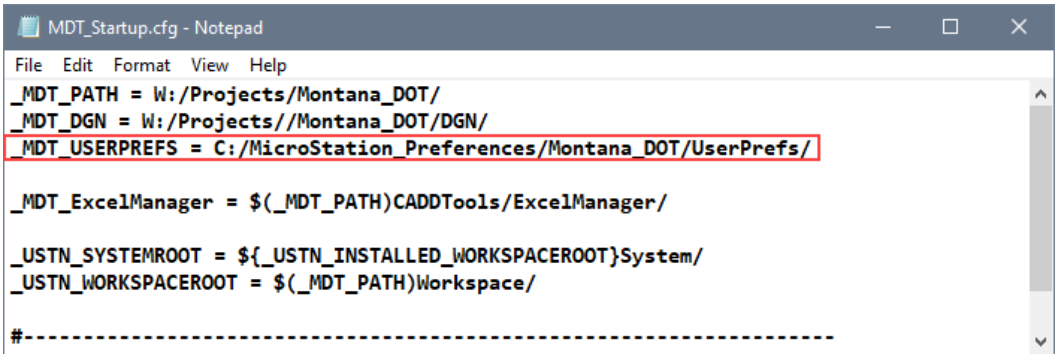
You should only need to install/move the user preferences folder on the initial setup. On subsequent releases of the workspace there is no need to update the delivered default preferences. Although, user preference files should be refreshed when making any software upgrades, e.g. SS4 to SS10.

To move these files to a different location on the local C: drive (example: C:\MicroStation_Preferences\Montana_DOT):

1. Move the contents of the **C:\Montana_DOT\UserPrefs** folder to **C:\MicroStation_Preferences\Montana_DOT\UserPrefs**

2. Open the file **MDT_Startup.cfg** in Notepad

3. Change the value of the **_MDT_USERPREFS** variable to reflect the new location of the UserPrefs folder.



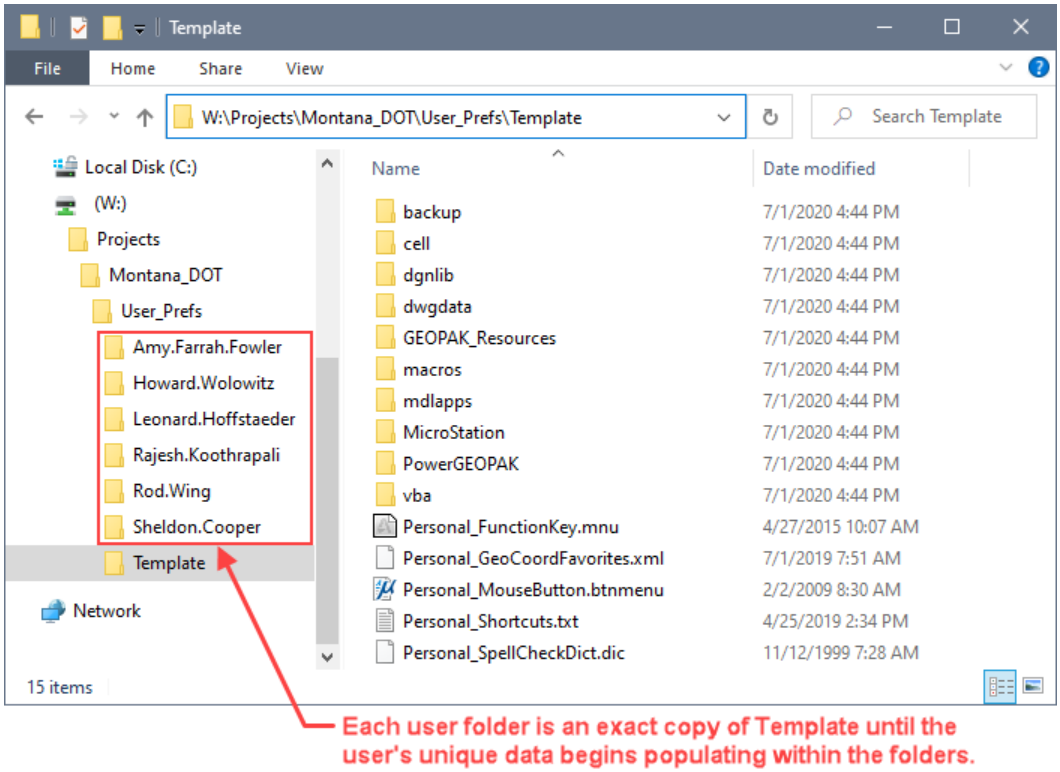
Be sure to use the forward slash character (/) in the path name definition instead of the usual backslash character. Also place a forward slash at the end of the path definition.

To move these files to a network location so that each user has their own preferences stored in a unique folder on a server (example: W:\Projects\Montana_DOT\User_Preferences\<Username>):

All of the user preference related files within the folders will retain the **Personal** naming prefix.

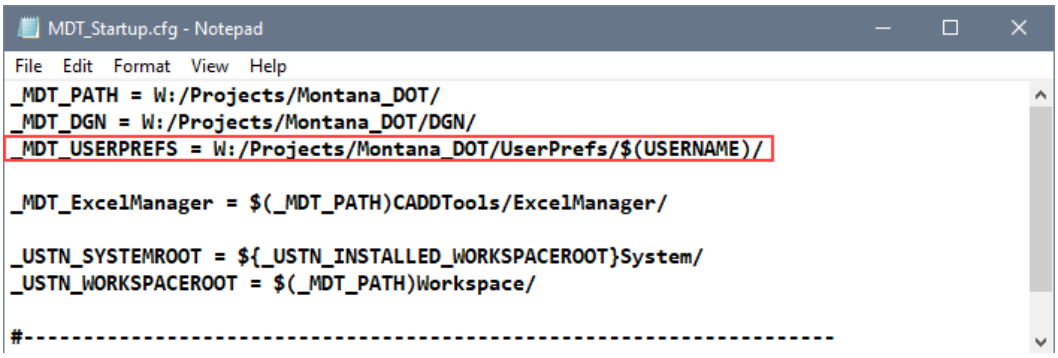
1. Move the contents of the **C:\Montana_DOT\UserPrefs** folder to **W:\Projects\Montana_DOT\User_Prefs\Template\.**

2. Make a copy of the Template folder for each user using their Windows login name for each new folder.



3. Open the file **MDT_Startup.cfg** in Notepad.

4. Change the value of the **_MDT_USERPREFS** variable to reflect the new location of the UserPrefs folder.

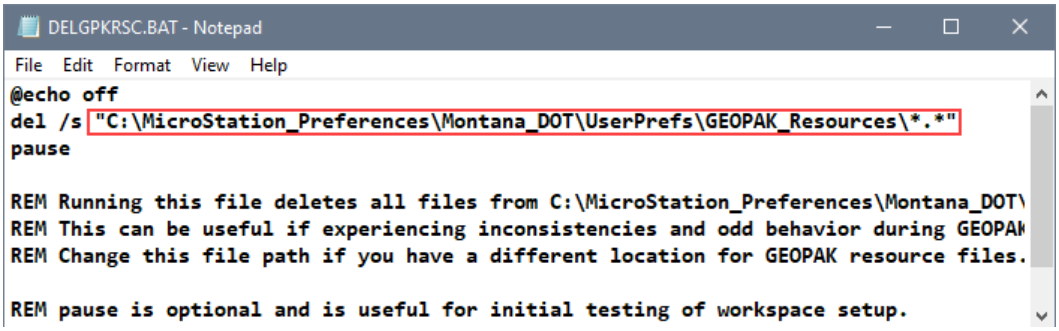


Be sure to use the forward slash character (/) in the path name definition instead of the usual backslash character. Also place a forward slash at the end of the path definition.

The $(USERNAME) variable evaluates to the Windows username of the currently logged in user. This change in the _MDT_USERPREFS variable definition will redirect MicroStation and PowerGEOPAK to place the user preferences in a folder named uniquely for each user.

Note: User_Prefs includes a folder for GEOPAK resource files. Occasionally, GEOPAK resource files need to be deleted. This can be done manually, or a batch file can be used. The file path must be edited (right-click, Edit) to match the chosen user preference location.

ftp://ftp.mdt.mt.gov/CaddStandards/Tools-Resources/General/DELGPKRSC.BAT

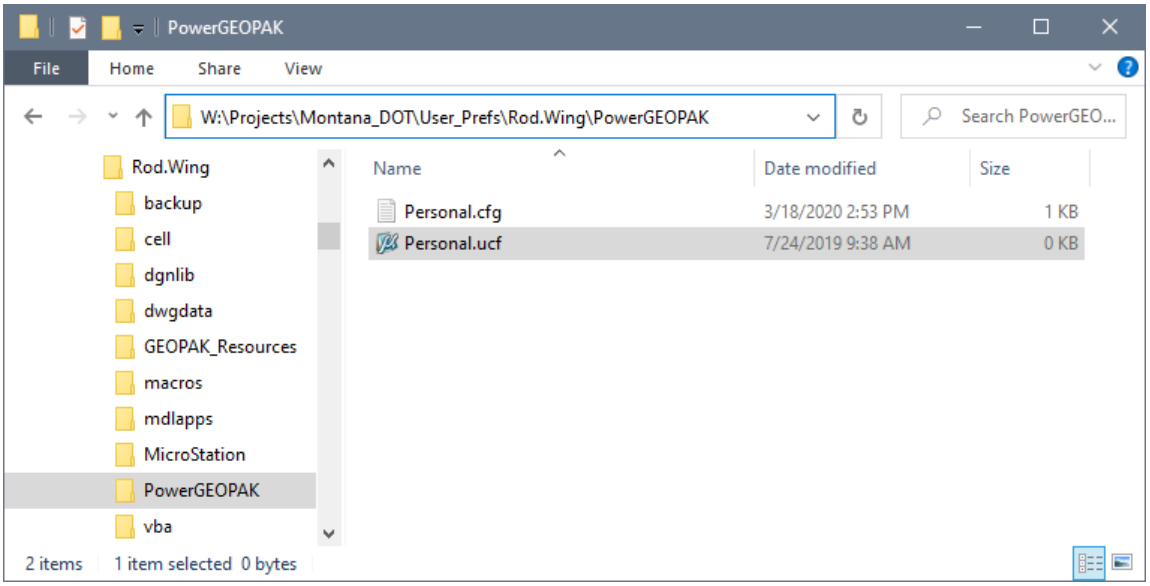


Moving the User Configuration file (.ucf)

In the default installation all users have the option to use the MDT_OPENROADS user configuration. When moving the MDT standards to a network location, multiple users could be accessing the same .ucf file simultaneously, unless each user has an individual ucf. This can lead to conflicts and corruption of this file.

To avoid this, you can easily enable the use of a personal .ucf file from the UserPrefs folder.

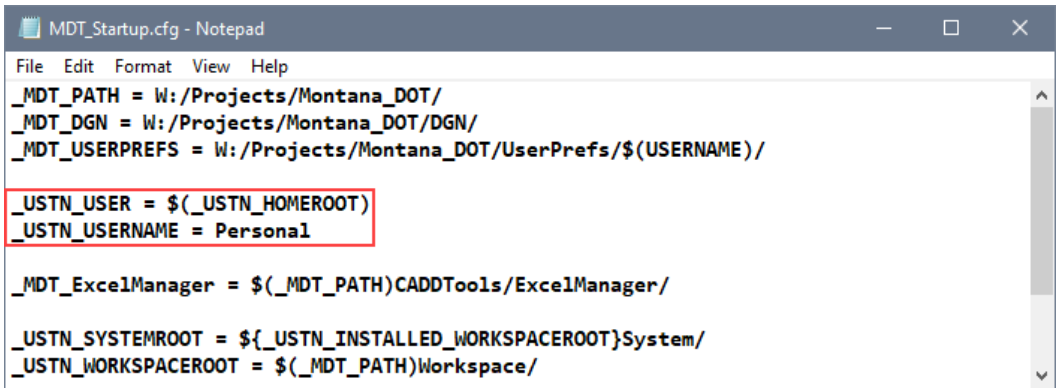
In addition to the Personal.upf and other Personal resource files, the default **C:\Montana_DOT\UserPrefs\MicroStation\ or C:\Montana_DOT\UserPrefs\PowerGEOPAK** folders contain a blank **Personal.ucf** file that can be used as the base user configuration file for your users. To use the Personal.ucf, the UserPrefs folder structure set up previously, must exist on the network for each user.



To enable MicroStation to use this Personal.ucf file requires a simple edit to the **MDT_Startup.cfg** file. There are two variable definitions that are commented out (prefixed with a # character) in the delivered MDT_Startup.cfg file:

- **_USTN_USER** - Defines the path where MicroStation looks for the .ucf files
- **_USTN_USERNAME** - Defines the default name to use for the .ucf file

Remove the two **#** characters at the beginning of the two variable definition lines to use the Personal.ucf from the user's _USTN_HOMEROOT ($(_MDT_USERPREFS)$(_ENGINENAME)) folder.



After making these edits save and close the file. On the next launch of MicroStation, the ***User*** selection in the MicroStation Manager (File Open) dialog will be set to **Personal**.

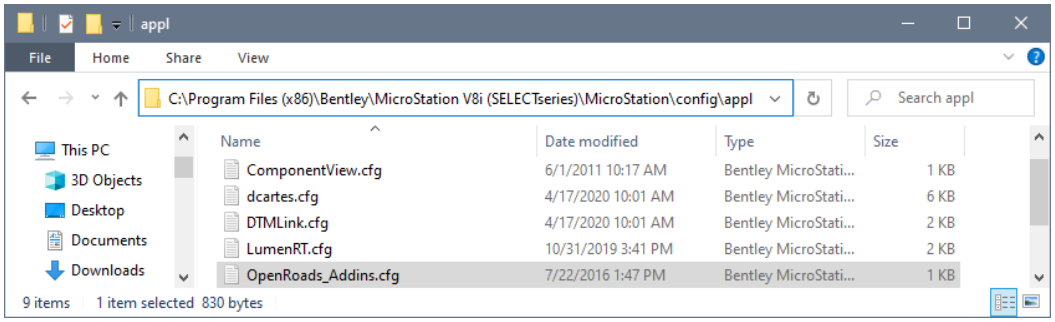
Installing SyncXS

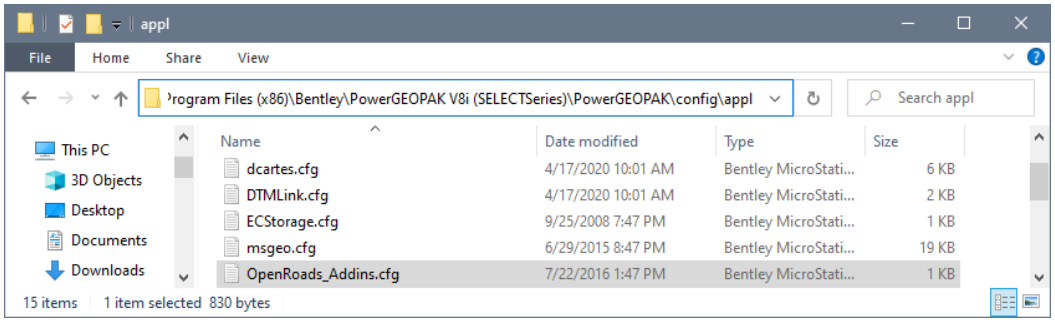
To use the SyncXS Bentley application add-on (loaded from the Road Tools pulldown menu), it must be installed for MicroStation and/or Power GEOPAK. Installation files can be found in the CADDTools folder delivered with the workspace. Review **SyncXS.wmv** and **SyncXS_Updated.wmv** for additional installation instruction and functionality.

1. Find the Windows Installer Package file **syncxs_v010010_setup.msi** under **C:\Montana_DOT\CADDTools\SyncXS.zip** and open.

2. Once installed, open the **C:\Program Files (x86)\Bentley\OpenRoads_Addins** folder in an Explorer window.

3. Copy the **OpenRoads_Addins.cfg** to **C:\Program Files (x86)\Bentley\MicroStation V8i (SELECTseries)\MicroStation\config\appl** and/or **C:\Program Files (x86)\Bentley\PowerGEOPAK V8i (SELECTSeries)\PowerGEOPAK\config\appl** folder(s).





You may need IT staff assistance for running the MSI file and making this copy as this is a protected folder.

Installing Engineering Fonts

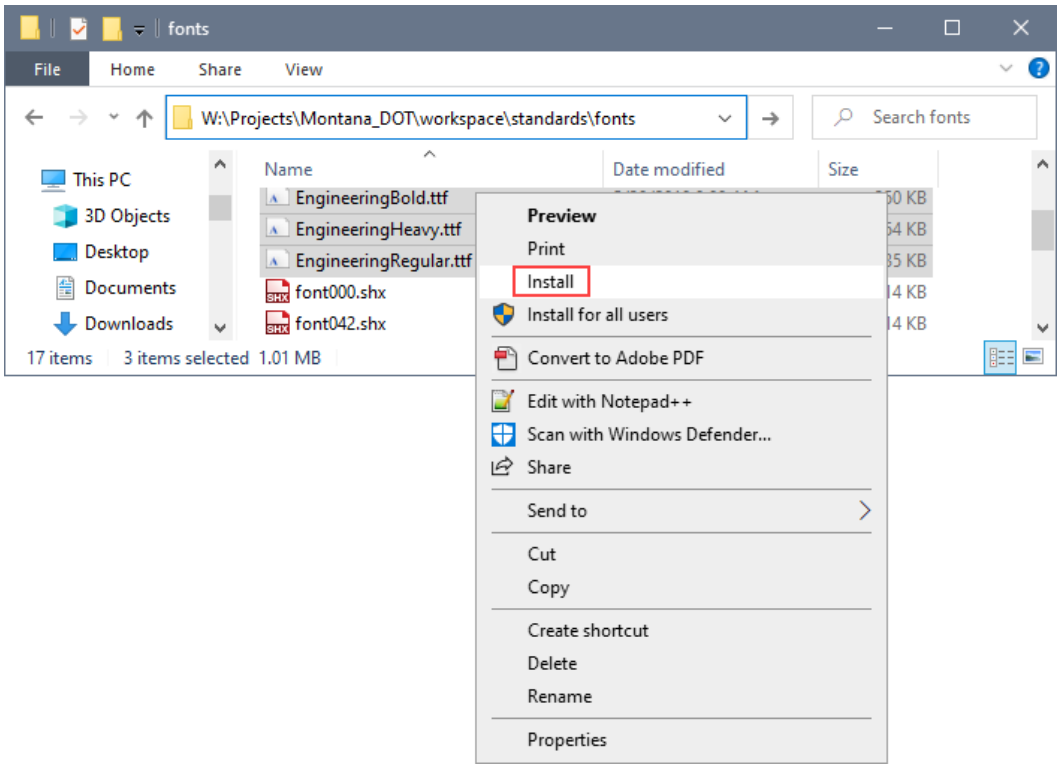
Engineering True Type Fonts are delivered with this workspace. They must be installed in the Windows directory to be accessible with use of MicroStation/Power GEOPAK and/or CADDTools Excel files.

Continuing with the W: drive locations used in the previous examples

1. Open the **W:\Projects\Montana_DOT\workspace\standards\fonts** folder in an Explorer window.

2. Locate the True Type Font (.ttf) files.

3. To install on a local PC only, select all True Type Font files and right-click to **install**.

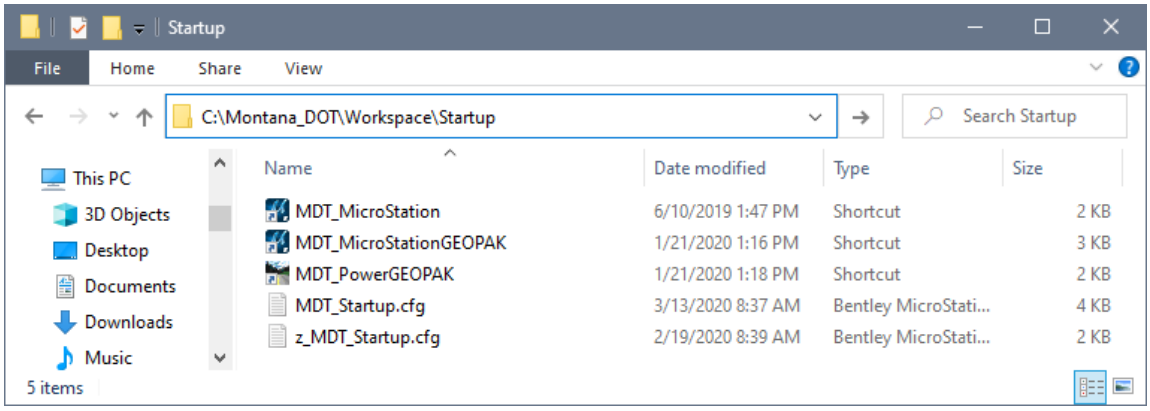


You may need IT staff assistance for other installation methods to allow access to the Engineering Fonts for all users.

Loading the MDT Workspace without the custom icon

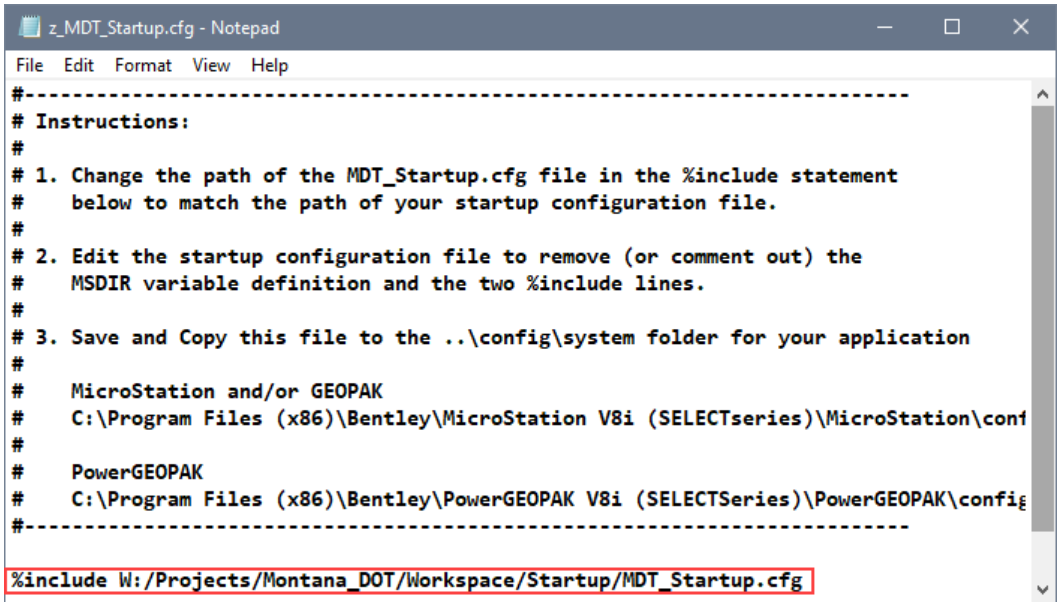
Some Consultants may wish to load the MDT Workspace without having to start MicroStation or Power GEOPAK from a custom icon. With a few simple tweaks the MDT Workspace can be loaded no matter how MicroStation or Power GEOPAK are launched.

1. In the **..\Montana_DOT\Workspace\Startup** folder, a second startup configuration file is delivered - **z_MDT_Startup.cfg**.

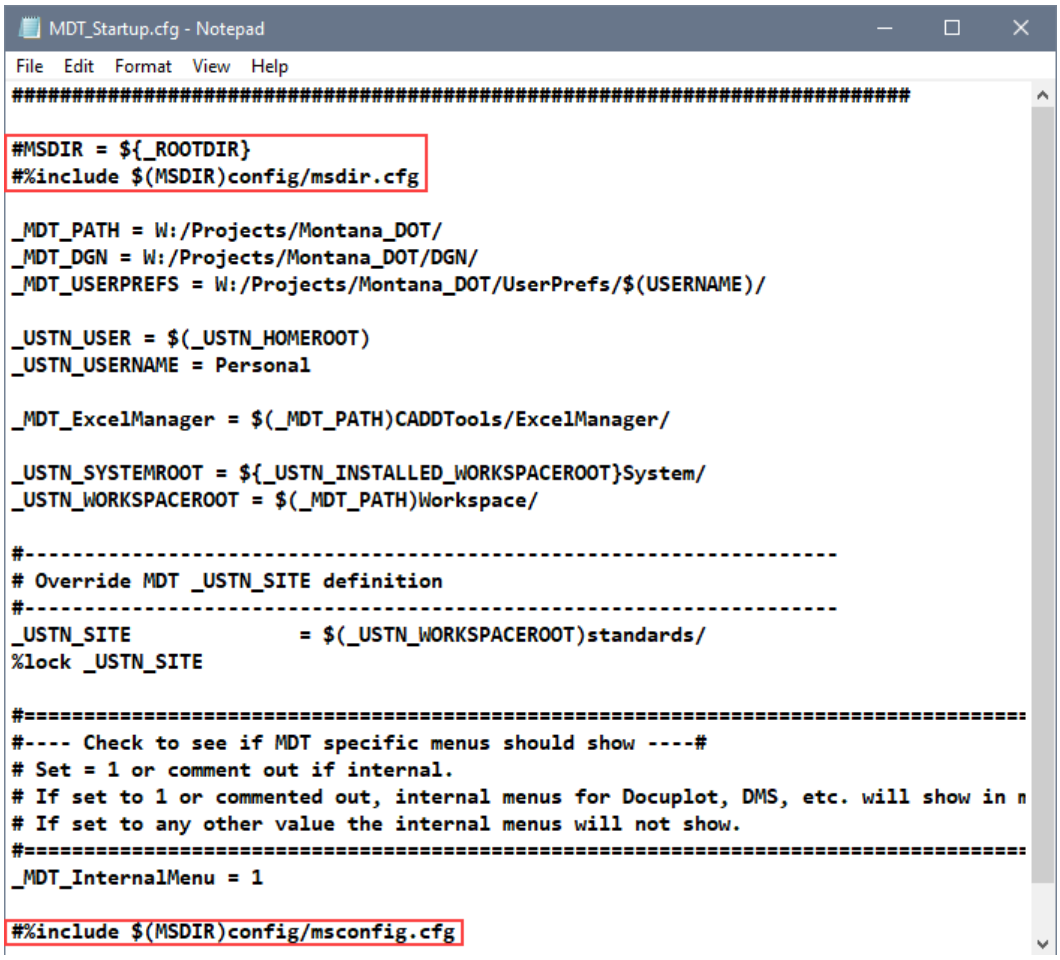


2. Open the in **z_MDT_Startup.cfg** Notepad. You will see the instructions on how to use this file to bypass the custom startup icon detailed in the header comments.

3. Change the path of the **MDT_Startup.cfg** file in the **%include** statement to match the path of the startup configuration file you are using.

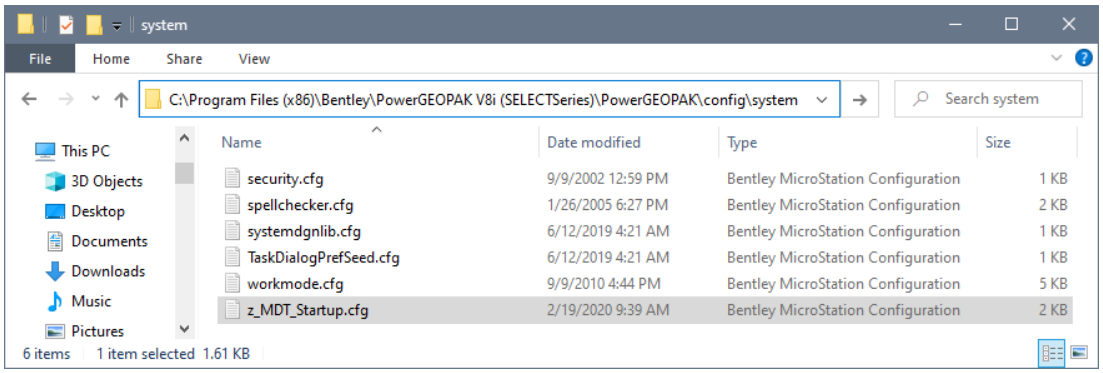


4. Edit the **MDT_Startup.cfg** file and comment out the **MS_DIR** variable definition as well as the two **%include** statements by placing a **#** character at the beginning of the line.



Since we are launching MicroStation a different way, these lines are no longer needed and may cause conflicts if we leave them active.

5. After saving the changes to both configuration files, copy the **z_MDT_Startup.cfg** file to the **..\config\system** folder of the application you are launching. In this example we are using PowerGEOPAK SS10.



You may need IT staff assistance for making this copy as this is a protected folder. Adding this file can be made part of your software installation process. As long as the path to the MDT_Startup.cfg file doesn't change, this file will not need to be modified.