



OHDOT_Files.mvba

Description:

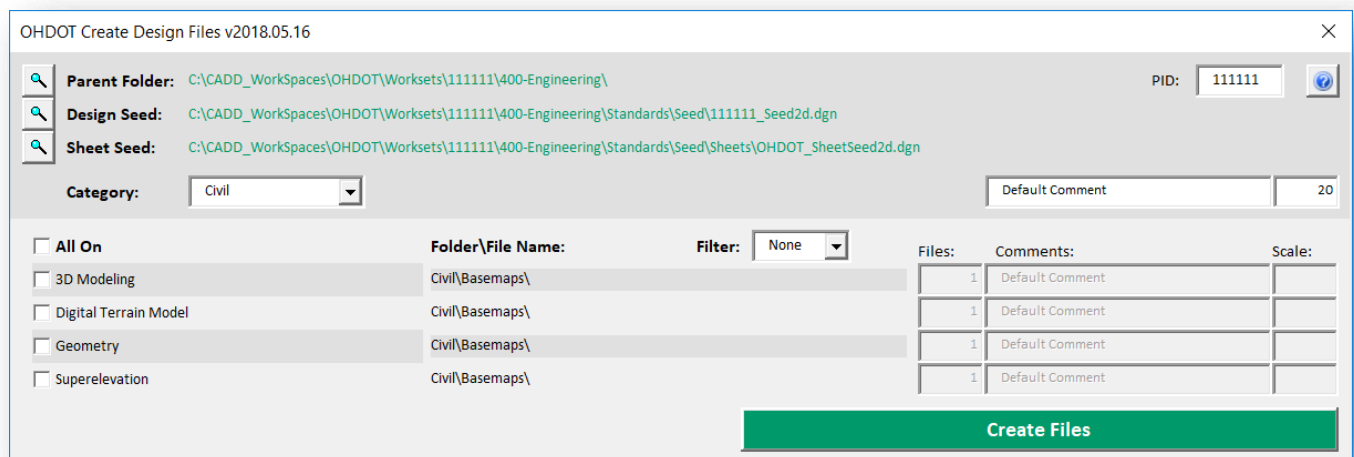
The ODOT_Files.mvba application is used to create new MicroStation design files for the current WorkSet according to the file naming and directory structure conventions defined in the **ODOT CADD Engineering Standards Manual**.

Loading the Application:

The application is loaded in MicroStation Connect Edition or OpenRoads Designer Connect Edition by selecting the **New Design File** option from the Ohio DOT Workflow.

Application Operation:

When the application is opened, a dialog like the example below is opened.



Parent Folder

The **Parent Folder** is used to define the root folder for the WorkSet. The value is defined by the following MicroStation configuration variable:

`_USTN_WORKSETROOT`

If this variable is not defined, the user must use the **Browse** icon to the left of the **Project Folder** to select the WorkSet root location. The 400-Engineering folder is the default folder for the WorkSet.

Design Seed

The **Design Seed** defines the seed file used to create basemap design files. The application defaults to the 2D seed file found in the following location for the WorkSet:

`..\400-Engineering\Standards\Seed\#####_Seed2d.dgn`



Sheet Seed

The **Sheet Seed** defines the seed file that will be used to create sheet design files. The application defaults to the sheet seed file defined by the following MicroStation configuration variable:

MS_SHEETMODELSEED

PID Number

This defines the ODOT Project Identification Number (PID) for the WorkSet. The program will default to the ODOT PID Number defined by the MicroStation configuration variable OHDOT_PID. If the variable is not defined, the user is prompted to enter the PID number for the project.

Category

The **Category** item lists the various roadway design disciplines that are available for new design file creation. When a category is selected, the list of file types that can be created is updated accordingly.

- Basemap files are created in the \basemaps sub-folder
- Sheet files are created in the \sheets folder.

Files

Enter the number of files to be created for the selected file type.

Comments

Each design file can have a comment stored with the file. Comments can be keyed-in individually for each file or the **Default Comment** field can be used to globally assign a comment to every design file.

The comment is assigned to the comments property of each design file that is created. The comments can be displayed in Windows Explorer if desired. Additionally, the file comment can be edited by selecting File > Properties.

Scale

The **Scale** option is used to set the MicroStation Annotation Scale for each design file. If a sheet file is selected, a default sheet border will be placed in the file according to the selected sheet type.

The default Scale option is used to globally set the Scale value for every design file to be created. Note that the sheets placed in some design files are intended to always be placed at a scale value of 1. In this case, the Scale value is hard coded and cannot be changed by the user.

Filter

Filters are used for projects with multiple locations under one PID number. Each of the project locations can be split up into a range of numbers using the Filter option; 001-099 for location one, 101-199 for location two, 201-299 for location three, etc.

The Filter parameter is used to set the range of files as new files are created. The filter can be set to the following values: None, 000, 100, 200, 300, 400, 500, 600, 700, 800, 900.

All On

Files to be created can be individually toggled on/off using the check boxes next to each file type. The **All On** option is used to toggle on/off all the files in the list.

The program will search the \basemaps or the \sheets folder for selected **Category** to list any previously created design files. If a previously created file is found, the discipline folder name and the



file name is displayed in the dialog. When a file type is toggled on, the name of the new file to be created is displayed in red under the File Name list.

When files are created, the selected Category name and the name specified by the check box is written to the Title property of each new file.

Use Design Seed for Sheet Files (OpenRoads Sheet Clipping)

If the user is creating a new file for OpenRoads sheet clipping, toggle this option on to force the program to create the new file(s) using the Design Seed instead of the Sheet Seed. The design seed is necessary for attaching the reference files that will be included in the clipped sheets.

When using this option, keep in mind that this applies to all files created. Be careful only to create the file types that are used for sheet clipping.

Twin Structures

If the Bridges **Category** is selected, the **Twin Structures** options is available. This option is used when sheet files are created and a sheet border is placed in the file. By toggling this option on, the sheet border will include two fields for two separate structure file number entries.

Create Files

Select the **Create Files** button to initiate the process.

Depending on how many files are being created it could take a few minutes to process all the files. Several things are happening behind the scenes when each file is created:

- The selected seed file is copied to the project folder and renamed according to the file type being created.
- The file is opened and the following steps are preformed:
 - The Comments are written to the design file properties.
 - A Title is written to the file properties.
 - The MicroStation Annotation scale is set according to the Scale factor.
 - If a sheet border cell is to be placed, the cell libraries are searched for a matching cell name which is placed in the sheet model at the desired scale.
 - A MicroStation Save Settings command is executed.
 - The file is closed and the process is repeated for each design file to be created.
 - If a basemap is created, the “000” file for the selected basemap type is opened and the newly created file is attached as a reference.

You will be notified when the process is complete. The last file created is retained as the active design file.

Federated Basemaps

A “federated workflow” refers to a process where each individual alignment or corridor is placed in a separate design file. This “federation” of files is used on projects with more than one alignment to split the data into multiple design files. For example, a project with multiple alignments would have multiple geometry basemaps, or “BK” files, one file for each alignment (_BK001, _BK002, _BK003, etc.). The files are then referenced into a single “collector” file (BK_000). The collector file can then be attached as a reference, with a nest depth of 1, to easily attach all the alignments to other files, rather than attaching each alignment file individually.



The collector file is numbered “000”. BK001, 002, 003, etc. would be attached to the file BK000.dgn. If the **Filter** option is used to create files by a filter group numbering scheme, the collector file is then numbered 100, 200, 300, etc.

As new basemap design files are created, the program will attach each new file as a reference to the “000” basemap for that file type. The following basemap file types support the use of a “000” federated basemap collector file:

"BA", "BC", "BD", "BV", "BI", "BL", "BH", "BM", "BP", "BR", "BG", "BT", "BU", "BK", "KM"

With a federated workflow, graphic elements drawn in each basemap design file are displayed in the “000” file, or any other file that references the basemap, according to the setting of the configuration variable MS_REF_NEWLEVELDISPLAY. This variable is defined as follows in ODOT_WorkSpace.cfg:

MS_REF_NEWLEVELDISPLAY = 1

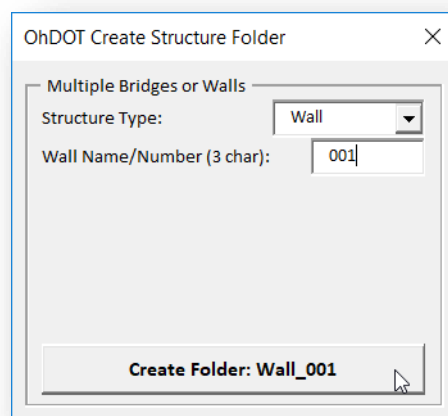
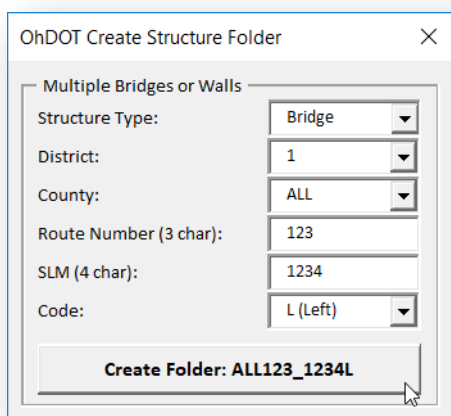
As new elements are drawn in the various federated basemaps, the graphics are dynamically displayed in the “000” file (or in any other file that may reference these graphics) with the variable defined as shown above.

The user can override the default variable definition when a reference file is attached by setting the **New Level Display** parameter to the desired value (Config Variable, Always, or Never).

Bridge and Wall Files/Folders

For projects with a single bridge or wall, the bridge and wall files can be created in the default Structures folder. For projects with multiple bridges or walls, the files for each bridge or wall should be organized into separate folders for each bridge or wall in the WrokSet.

When the Bridges or Walls **Category** is selected, an option is presented to create a Bridge or Wall folder. Select **Create Bridge Folder** or **Create Wall Folder** to access the dialogs shown below.



If one or more bridge or wall specific folders has been created, the user must select the desired folder, which is listed to the right of the category selection, for the new bridge or wall files to be created. An example is shown below.



	Parent Folder: C:\CADD_WorkSpaces\OHDOT\Worksets\111111\400-Engineering\	PID:	111111		
	Design Seed: C:\CADD_WorkSpaces\OHDOT\Worksets\111111\400-Engineering\Standards\Seed\111111_Seed2d.dgn				
	Sheet Seed: C:\CADD_WorkSpaces\OHDOT\Worksets\111111\400-Engineering\Standards\Seed\Sheets\OHDOT_SheetSeed2d.dgn				
Category:	Bridges	ALL123_1234L	Create Bridge Folder	Default Comment	20

Updates:

Version 2018.07.20

Initial release for MicroStation and OpenRoads Designer Connect Edition

Contacts

For any questions, suggestions, or problems with this document please contact the ODOT Office of CADD and Mapping Services by use of the following form on the ODOT website:

https://odot.formstack.com/forms/cadd_servicerequest
