



Application Name:	ODOT_Files.mvba
Tested MicroStation Version:	SELECTseries 4
Tested GEOPAK/OpenRoads Version:	Not Applicable

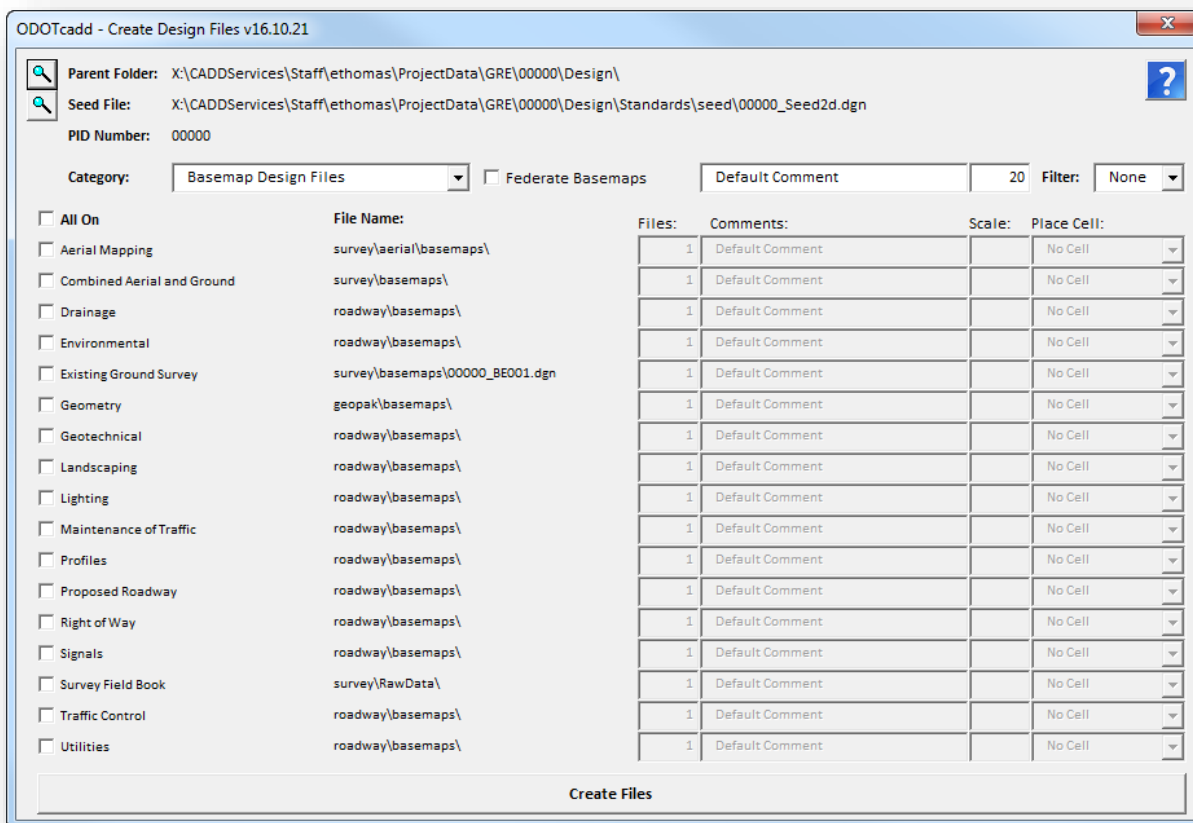
Application Description

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

The application can be accessed from the MicroStation pull-down menu by selecting **ODOT > File Management > Create Design Files**. The application can also be accessed with the following key-in command:

vba load ODOT_files.mvba; vba run modMain.CreateFiles

When the application is accessed, a dialog similar to the example below is opened.





Application Operation

The dialog has the following functions:

Parent Folder

The **Parent Folder** for the project is defined by the MicroStation configuration variable **_USTN_PROJECTDATA**. If this variable is not defined, the user must use the **Browse** icon to the left of the **Project Folder** in order to choose the \Design folder for the project.

The program assumes that an ODOT Folder Structure is in place as defined in the **ODOT CADD Engineering Standards Manual**.

The default parent folder for design file creation is the \Design folder.

If the project contains separate folders for bridges or walls, these folders can also be selected as the parent folder. See the **Category** item below for more information.

Seed File

Use the browse button to choose the seed file that will be used for each new design file to be created. The program will default to the folder defined by the MicroStation configuration variable **MS_SEEDFILES**.

PID Number

The program will default to the ODOT PID Number defined by the MicroStation configuration variable **ODOT_PID**. If the variable is not defined, the user is prompted to enter the PID number for the project. For projects that do not have a PID Number defined, use "00000" as the PID Number.

Category

The category item lists the various roadway design disciplines that are available for new design file creation. The contents of the drop-down list will vary depending on whether the selected Parent Folder is the \Design folder or a \Structures sub-folder.

When a **Category** is selected, the list of files to be created updates to reflect the selected **Category**. If a discipline specific folder exists for the selected Category, the files will be created in the discipline specific folder. If the discipline specific folder does not exist, the files will be created in the \roadway folder.

Basemap files are created in the \basemaps sub-folder

Sheet files are created in the \sheets folder.

When the **Parent Folder** is defined by selecting a bridge or wall folder under the \Structures folder. The dialog dynamically changes to present the options relative the bridge or wall design file creation.

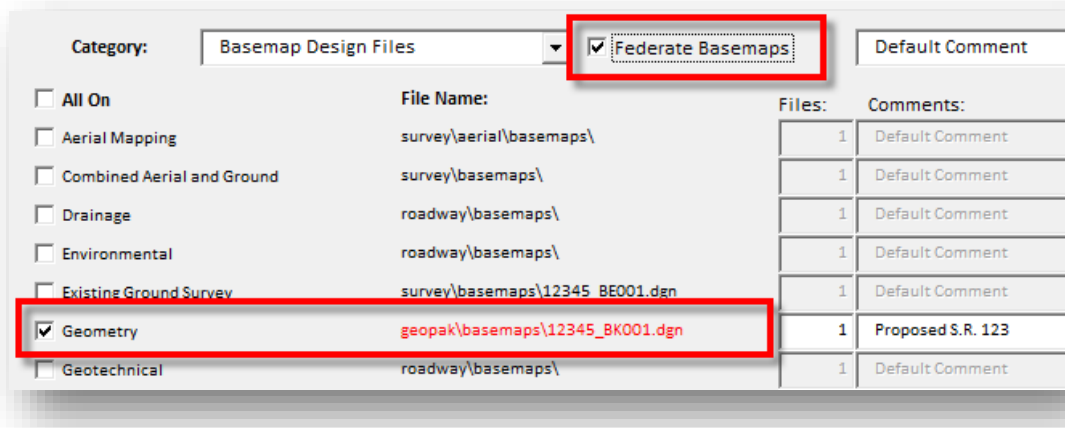


Federate Basemaps

This option is specific to users working with OpenRoads in a federated workflow. 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 in order to split the data into multiple design files. For example, a project with four alignments would have four geometry basemaps, or “BK” files, one file for each alignment (_BK001, _BK002, _BK003, etc.). The files are then referenced into a single “collector” file. The collector file can then be attached as a reference, with a nest depth of 1, to easily attach all of the alignments to other files, rather than attaching each alignment file individually.

The collector file is numbered “000”. In the example above, 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. See the information on the **Filter** option for more information.

To create a 000 collector file for a specific file type, toggle on the **Federate Basemaps** option. When the design file is created, the 000 file is also created if it does not previously exist. In the example below, two files are created: 12345_BK000.dgn and 12345_BK001.dgn.



As new design files are created using the **Federate Basemaps** option, 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"

The use of a federated workflow is recommended for OpenRoads projects, but not required.

When a federated workflow is used, 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_Site.cfg**:

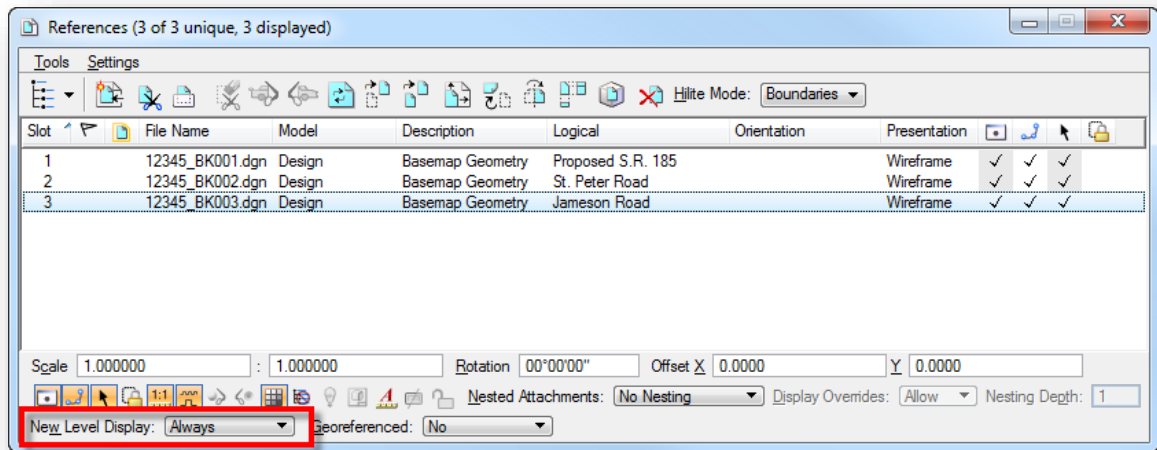
MS_REF_NEWLEVELDISPLAY = 0



As new elements are drawn in the various federated basemaps, the graphics are not dynamically displayed in the “000” file (or in any other file that may reference these graphics) with the variable defined as shown above. Users must open the MiroStation *Level Display* dialog to turn on/off levels for each reference attachment, as desired.

In some cases, this behavior is desirable as it prevents new and potentially unwanted information from being automatically displayed on any plan sheets that reference one or more of the federated basemaps. Other users may find this behavior frustrating as new graphics must be manually turned on for each reference attachment.

The default variable definition can be overwritten when a reference file is attached by setting the **New Level Display** parameter to a value of **Always**. When files are created using the **ODOT_Files.mvba** application, the references are attached to the “000” collector file with the **New Level Display** option set to **Always** as shown below.



Some users may prefer a dynamic display of the graphics for all reference attachments in all design files as the project is developed. The configuration variable can be defined on a per-project basis in the project’s PCF file. Set the variable as follows in the PCF File for the project:

MS_REF_NEWLEVELDISPLAY = 1

The variable could also be redefined in **ODOT_Site.cfg**, keeping in mind that it will default back to the value defined by ODOT if an update to the site configuration file is issued with the ODOTcadd Standards quarterly update.

Files/Models

Choose the **Files** option to create multiple design files for each selected file type. Choose the **Models** to create design files with multiple sheet models. Note: Multiple models will only be created if the selected file type is a sheet design file. Multiple models is not supported for basemap design files.



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** and then the **Summary** tab in MicroStation.

Scale

The **Scale** option is used for two purposes.

- To set the MicroStation Annotation Scale for each design file.
- If the selected design file has an option to place a cell, the Annotation Scale is used to determine the size of the cell placed in the design file.

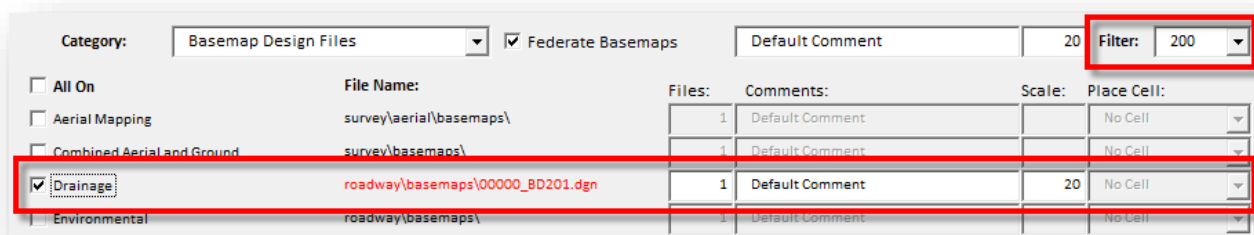
The default **Scale** option is used to globally set the **Scale** value for every design file to be created. Note that the sheets placed in some design files are intended to always be placed at a scale value of 1. In this case, the **Scale** value is hard coded and cannot be changed by the user.

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.

In the example below, files in the 201-299 range are created with the Filter set to a value of 200. With the **Federate Basemaps** option toggled on, a file named 00000_BD200.dgn is also created.



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 **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.

Files/Models

This key-in field is used to specify the number of design files to be created, or the number of sheets models to be created, for each selected file type. The default value is 1.

Place Cell

Many sheet types allow the placement of a cell in the design file. If you wish to place a cell, select the cell name from the list. The list of available cells is based on the sheet type selected.

Basemap design files do not provide the option to place a cell.

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 in MicroStation and the following steps are preformed:
 - If the file is a basemap design file, the design model is activated.
 - If the file is a sheet design file, the sheet model is activated.
 - 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 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.
 - If the option to create multiple sheet models is selected, the initial sheet model is copied for each additional model to be created
 - A MicroStation Save Settings command is executed.
- The file is closed and the process is repeated for each design file to be created.

You will be notified when the process is complete.

Contacts

If you have any questions, suggestions, or problem with this application please contact the ODOT Office of CADD and Mapping Services by use of the following form on the ODOT website:

<http://www.dot.state.oh.us/Divisions/Engineering/CaddMapping/CADD/Pages/Suggestions.aspx>