



OHDOT_SheetCrossRefs.mvba

Description:

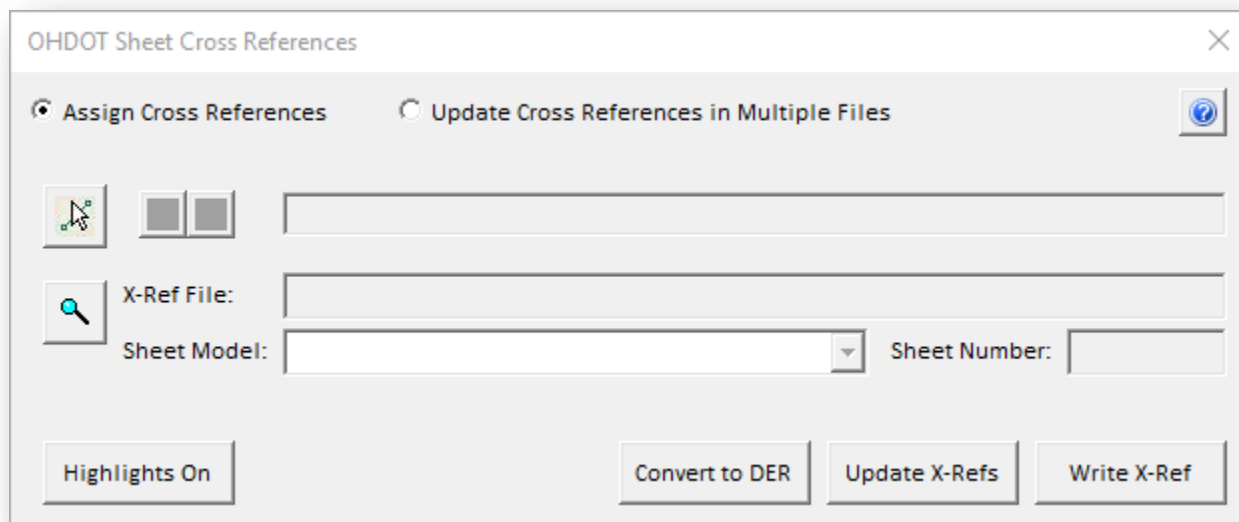
This application is provided to assist the user with the task of creating, finding, and updating sheet cross references.

Loading the Application:

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

Application Operation:

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



The application has two operational modes: **Assign Cross References**, and **Update Cross References in Multiple Files**.

Assign Cross References

When this mode is selected, the application is used to assign cross references and to review cross references in the active model. In this mode, the application has the following functions:

Select X-Ref Element

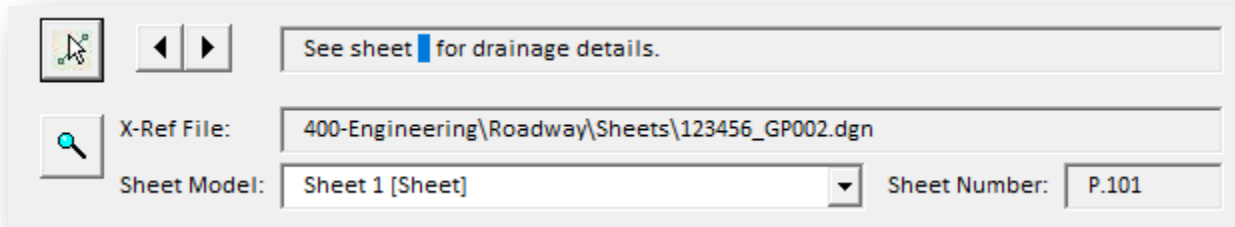
MicroStation text and text node elements containing one or more enter data regions can be used for cross reference assignments. The sheet number is read from a selected MicroStation design file/model containing an ODOT Sheet Border cell in a sheet model.



The **Select X-Ref Element** option is used to select a MicroStation text or text node element containing at least one data entry region to assign one or more cross references. When a text or text node element is selected with an entry data region, the dialog will display the current cross reference value if one has been previously defined.

If more than one data entry region is present in the selected text or text node element, the left and right arrow buttons are used to select the data entry region to make the cross-reference assignment.

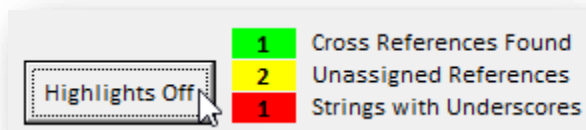
The **Select X-Ref File** button is used to select the MicroStation design file containing the sheet number to be referenced. The **Sheet Model** item displays a list of all the sheet models contained in the selected file. The **Sheet Number** is displayed for the selected file/model.



It is assumed that there is only one sheet border cell in the selected Sheet Model, including cross section design files. If multiple sheet borders are contained in the selected sheet model, the first sheet cell placed will be read to extract the sheet number.

Highlights On/Off

When this button is selected, the program will search the active model for text elements containing data entry regions. If a text element with a data entry data region is found, the program will next check to see if a cross reference assignment has been made. Lastly, the program will search for text elements containing an underscore character that is not defined as a data entry region. The text elements are highlighted as shown in the example below:



Green

A sheet cross reference has been successfully assigned

Yellow

The text string contains a data entry region, but no X-Ref assignment has been made

Red

The text string contains underscore characters that are not defined as a data entry region



Convert to DER

This option is used to convert text strings containing underscore characters that are not defined as a data entry region (DER) to a data entry region. Use the **Highlights On/Off** option to as described above to identify any text elements in the active model that meet the criteria. After choosing the Convert to DER option, select the text element that you wish to convert the underscore characters to data entry regions.

Update X-Refs

Choose the **Update X-Refs** option to update all the cross references found in the current model. A report dialog is displayed listing the text strings that were updated and any errors that may have been encountered.

Write X-Ref

When this button is selected, sheet cross references are written to the selected element. The enter data regions in the selected element are updated to reflect the current sheet number found in the X-Ref File and Sheet Model for each cross reference.

A model link is also assigned to the selected element. If the element has more than cross reference the model link is assigned for only the first cross reference. When printing a multi-page PDF using print organizer these model links will turn into page links with in the multi-page PDF if both the sheet containing the cross reference and the sheet that's being cross referenced are in the pset file.

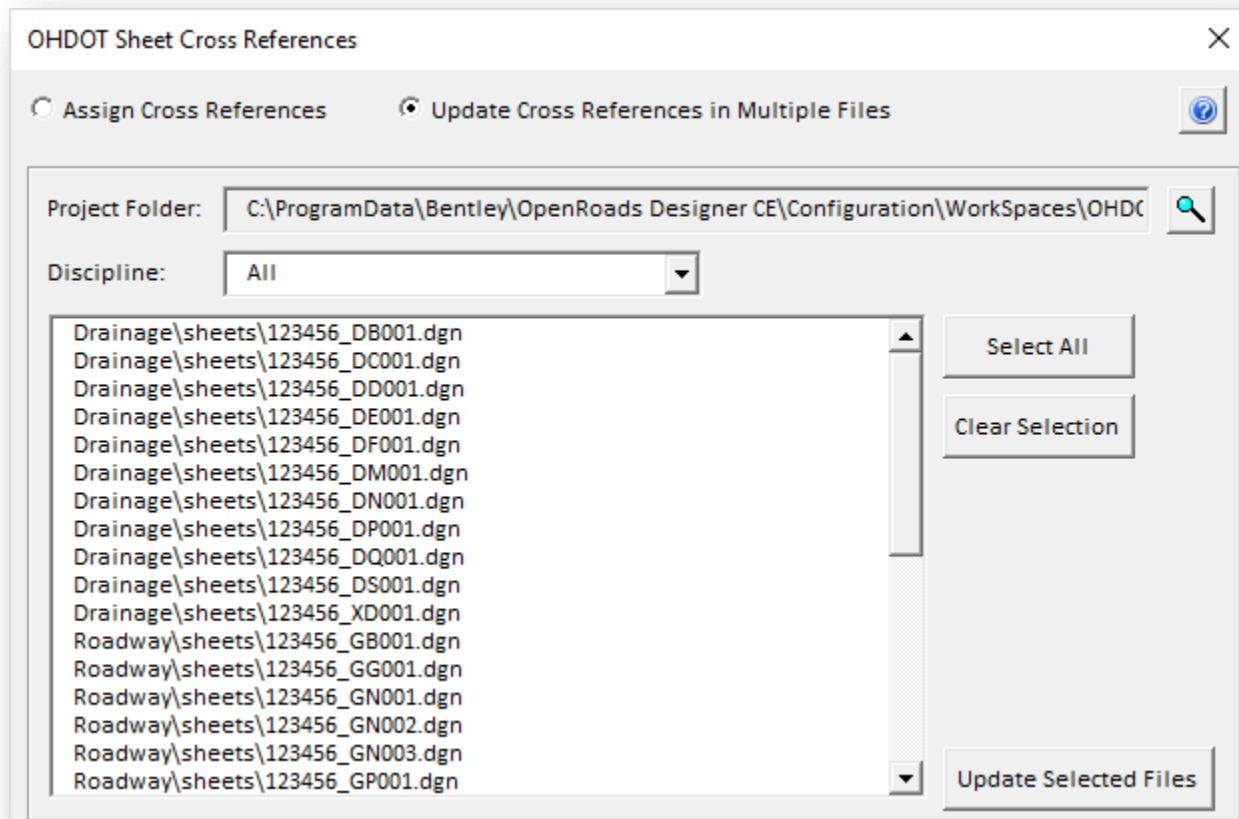
The cross-reference information is written to the selected text element as a MicroStation Data Block attribute. These attributes are not user definable or editable. The name of the selected X-Ref File and the name of the selected Sheet Model for each cross reference is written to the selected element, not the actual sheet number.



Update Cross References in Multiple Files

With this more selected, the application can be used to update sheet cross references in one or more MicroStation design files. This mode is provided to facilitate updating the cross references for the entire WorkSet after the plan sheet numbers have been assigned or updated. Sheet numbers can be managed using the OHDOT_SheetManager.mvba application.

When **Update Cross References in Multiple Files** is selected, the dialog has the following options:



Project Folder

Use the Select Project Folder button to the right to select the project's design folder for the project. If the MicroStation configuration variable `_USTN_PROJECTDATA` is defined, the program will default to the value defined by the variable.

Discipline

The program will scan the Project Folder for any sub-folders that are named "sheets". Each folder that is found that contains a sheets sub-folder is listed in the Discipline drop-down list. When a specific Discipline option is selected, the design files found in the sheets sub-directory for that discipline are listed below. If the Discipline drop-down is set to "All" then all design files found in all the sheets folders for all disciplines will be listed.

Select All/Clear Selection

The options are used to select all the design files, or clear the selected files, from the list. Individual files can be manually selected for processing.



Update Selected Files

When this option is selected, the selected design files in the file list are opened and each sheet model in the selected file(s) is processed to update and cross references found. The user must have read access to the selected file(s) for the cross references to be updated. When the process is complete, a report dialog is opened displaying the file name, model name, and the text strings that were updated as well as any errors that may have been encountered.

Updates:

Version 2018.07.20

Initial release for MicroStation and OpenRoads Designer Connect Edition. Note, text nodes are not supported in this version. Text node support will be enabled in a future release pending resolution of a problem which has been reported to Bentley.

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
