

# Design Services Update

9/2/2015

## Update Highlights

- Recent updates to the Development Guide.
- Updates to seed files in order to support more frequently used settings.
- Updates to the Title Block Management tool.
- Updates / additions to custom line styles, including underdrain, structure ground line, steam line, petroleum pipeline, & railroad tracks.
- Updates to display priority settings for drainage / utility structures & covers.
- Added feature definition for 3D modeling of bridge excavation limits.
- Added dimension styles for manual labeling of contour lines.

## Links to Previous “Design Services” & “MDOT 02 Workspace” Update Memos

Web: [http://www.michigan.gov/mdot/0,4616,7-151-9625\\_21540\\_36037\\_69214---,00.html](http://www.michigan.gov/mdot/0,4616,7-151-9625_21540_36037_69214---,00.html)

## Currently Supported CADD Software

MDOT\_01 Workspace + Power GEOPAK V8i SS2 - 08.11.07.566 + Windows 7:

- Updates are no longer being made to the MDOT\_01 Workspace.
- Projects currently underway in SS2/MDOT\_01 should remain in this Workspace.

MDOT\_02 Workspace + Power GEOPAK V8i SS3 - 08.11.09.722 + Windows 7:

- The MDOT\_02 Workspace is not backward compatible with SS3 Version 08.11.09.493.
- Utilization of SS3/MDOT\_02 is optional at this time.
- Consultants who wish to use SS3/MDOT\_02 should first obtain consent from their MDOT Project Manager.
- MDOT employees will need to contact [MDOT-PowerGEOPAKSupport@michigan.gov](mailto:MDOT-PowerGEOPAKSupport@michigan.gov) to request installation.
- The MDOT\_02 Workspace is available for download by consultants at the following link:

[http://www.michigan.gov/mdot/0,4616,7-151-9625\\_21540\\_36037-259870--,00.html](http://www.michigan.gov/mdot/0,4616,7-151-9625_21540_36037-259870--,00.html)

Consultant installation instructions are located in the “C:\MDOT\_02 Workspace\1\_Install” folder.

GEOPAK Civil Engineering Suite:

For consultants who choose to install “Geopak Civil Engineering Suite” in place of “Power Geopak”, please note that the following combination of software versions is required:

MicroStation V8i (SS3)	08.11.09.608
GEOPAK Civil Engineering Suite V8i (SS3)	08.11.09.722
GEOPAK Civil Engineering Suite V8i (SS2)	08.11.07.615*

\* Note that the version of MicroStation SS3 listed above is fully backward compatible with Civil Suite SS2 and this is the only version of MicroStation SS3 that supports both versions of Civil Suite listed above.

## Dual Workspace Installation Procedure:

The procedure for dual installation of both the MDOT\_01 and MDOT\_02 Workspace with “MicroStation / GEOPAK Civil Engineering Suite” is presented in a document titled “\_MDOT\_0201 Geopak CivilSuite Workspace Installation Procedure.doc”, which is located in the MDOT\_02 Workspace at “M:\MDOT\_02 Workspace\1\_Install\Resource Files\CivilSuite Configuration”. Any questions regarding the installation process should be directed to [MDOT-CADDSupport@michigan.gov](mailto:MDOT-CADDSupport@michigan.gov).

Note: If installing only the MDOT\_02 Workspace, the following procedure may be used to manually modify the “MDOT\_02 / Power GEOPAK SS3” installation process for use with “MDOT\_02 / MicroStation SS3 / GEOPAK Civil Engineering Suite SS3”:

1. Follow and complete the Power GEOPAK installation procedure.
2. Relocate the “MDOT\_02\_Local.ucf” and/or “MDOT\_02\_Server.ucf” files as shown below:  
From Here: C:\ProgramData\Bentley\PowerGEOPAK V8i (SELECTseries 3)\WorkSpace\Users  
To Here: C:\ProgramData\Bentley\MicroStation V8i (SELECTseries)\WorkSpace\Users
3. Delete the folder named C:\ProgramData\Bentley\PowerGEOPAK V8i (SELECTseries 3) and all subfolders.
4. Delete the custom icons that are specific to Power GEOPAK and use the generic icons that get added during software installation.

## **Workspace File Update Summary**

### Workspace Configuration

File: MDOT\_02.pcf  
Location: M:\MDOT\_02 Workspace\Projects  
Change: Added config variable to improve video graphic stability. Also added IF statements to load resource files based on SS3 or SS4 file format, in preparation for future workspace development involving SS4. Affected files include the user interface, civils cells, and civil standards contained within the Design\_Standards and Features\_General resource files.

### User Interface

File: NA  
Location: M:\MDOT\_02 Workspace\Interfaces\MDOT\mdot\_02  
Change: Added new folder path for interface files in order to support .

File: Interface\_MDOT.dgnlib renamed to Interface\_MDOT\_02\_SS3.dgnlib  
Location: M:\MDOT\_02 Workspace\Interfaces\MicroStation\mdot\_02  
Change: Renamed interface file to specify its use with SS3, in preparation for development of an SS4 version.

### Seed Files

File: All seed files.  
Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Seed Files\Design  
Change: The following changes were made to all seed files:

- Turned off Association Lock.
- Changed key point divisor from 1 to 2.
- Changed Annotation Scale default setting from 80 to 50.

- Reset the Arc Degree Of Curve Length setting at "Settings > Design File > Civil Formatting > Radius Settings" from 328.08 to 100.
- Turned on Tags in the View Attributes dialog.

### CADD Standards

File: Features\_General\_MDOT.dgnlib renamed to Features\_General\_MDOT\_SS3.dgnlib  
 Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Civil Standards\General\Features  
 Change: Renamed to specify SS3 file format, in preparation for future SS4 development.

### Title Block Manager

File: TagsOn.bas  
 Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Apps\Macros  
 Change: Added macro to automatically turn on tags when a dgn file is opened, in order to support the Title Block Manager tool.

File: TitleBlockMgr.mvba  
 Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Apps\VBA\Title Block Manager  
 Change: Resolved bug that was preventing the VBA from finding profile sheets, when run from inside a plan sheet.

File: TitleBlockMgr\_Settings.ini  
 Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Apps\VBA\Title Block Manager  
 Change: Updated two tag names in .ini file to match tag names in sheet border cell.

File: Sh\_Sheet\_Borders.cel  
 Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Elements\Cells  
 Change: Updated XS sheet border cell (Sheet\_Border\_11x17\_XS) to include tags, for future use with the Title Block Manager tool.

### Custom Line Styles

File: Custom\_Line\_Styles\_MDOT.rsc  
 Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Elements\Styles\Custom Line Styles  
 Change: Bridge: Updated custom line style for underdrain & structure ground line.  
 Change: Utilities: Added custom line styles for steam line & petroleum pipeline.  
 Change: Maps: Added custom line style for railroad tracks with annotation scale, for use with maps & vicinity sheets.

File: Features\_General\_MDOT\_SS3.dgnlib  
 Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Civil Standards\General\Features  
 Change: Updated custom line style settings for levels based on line style changes described above.

### **Line Style Update Procedure**

When a custom line style is drawn into a dgn file, its line style definition gets imported into the dgn file as well. As a result, a revised custom line style will not automatically update within a dgn file and its line style definition must be overwritten. In order to perform this update process, the following steps are required:

1. Go to Element > Line Styles > Edit to open the Line Style Editor.
2. Go to File > Import > MicroStation Resource File (RSC).

3. Navigate to “M:\MDOT\_02 Workspace\Projects\MDOT\_02\Elements\Styles\Custom Line Styles” (drive letter will vary) and double click on “Custom\_Line\_Styles\_MDOT.rsc” to open the “Select Linestyles to Import” dialog.
4. Select all line styles in list and click on Import, which will open an Alert dialog.
5. Click on the “Yes To All” button.
6. Click on the “Update View” icon (paint brush) to refresh the screen.

#### GEOPAK Visual Basic Applications

File: GeopakComExeLoadSS3.bas  
 Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Apps\Macros  
 Change: Added macro to load geopakcom.exe when a dgn file is opened, in order to select the correct version of Visual Basic for use with Geopak VBAs.

#### Roadway Design

File: Design\_Standards\_MDOT\_Ver1.dgnlib renamed to Design\_Standards\_MDOT\_Ver1\_SS3.dgnlib  
 Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Civil Standards\Design Standards  
 Change: Renamed file to specify SS3 file format, in preparation for future additional off SS4 version.

File: NA  
 Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Civil Standards\Civil Cells\SS3  
 Change: Moved civil cells with SS3 file format to this folder, in preparation for future addition of civil cells with SS4 file format.

#### Drainage

File: mdot\_drainage.mvba  
 Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Apps\VBA\  
 Change: Revised invert elevation callout text.

File: MultiLineStyle\_MDOT.dgnlib  
 Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Elements\Styles\MultiLine Styles  
 Change: Revised names of ft based multi-line styles for culverts, in order to sort by size.

#### SUE / SUDA / Utilities

File: Features\_General\_MDOT.dgnlib  
 Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Civil Standards\General\Features  
 Change: Updated level display priority settings for structures & covers (drain, sanitary, combined sewer, & NoID).

File: Ut\_Uutilities.cel  
 Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Elements\Cells  
 Change: Added existing steam manhole cover cell.

Note: See “Custom Line Style” section above for changes to bridge related custom line styles.

## Structures

File: Sheet\_View\_Filters.dgnlib  
Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Civil Standards\General\Level Filters  
Change: Added north arrow level to bridge sheet filter.

File: St\_Symbols.cel  
Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Elements\Cells  
Change: Removed highway shield cells for title sheet map.

File: Features\_General\_MDOT.dgnlib  
Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Civil Standards\General\Features  
Change: Added feature for Str\_Sub\_Footing, for use with linear templates.

File: Text\_and\_Dimension\_Styles\_MDOT.dgnlib  
Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Elements\Styles\Text and Dimension Styles  
Change: Added dimension styles for manual labeling of existing & proposed contour lines.

Note: See "Custom Line Style" section above for changes to bridge related custom line styles.

## Survey

### **Survey Deliverables For MDOT\_01 Plan Production**

If you received survey deliverables in MDOT\_02, yet desire to complete plans production work in MDOT\_01, MDOT Survey Support can provide services to convert the S-XXXXXX\_Survey\_2D\_20YY-MM-DD.dgn file from MDOT\_02 to MDOT\_01. Please contact [MDOT-Survey\\_Support@Michigan.gov](mailto:MDOT-Survey_Support@Michigan.gov)

A workflow document and support files to execute this conversion will be released in the next workspace release.

## Legend Sheets

File: Legend\_Sheets\_MDOT\_02\_Draft\_2015-09-02.dgn  
Location: M:\MDOT\_02 Workspace\Sheets  
Change: Added "STEAM" section to include new linestyles and replaced "OIL" linestyles and cells with "PETRO".

Note: The legend will be expanded over time, as CADD standards are developed for each of the specialty design groups.

Link: [http://www.michigan.gov/mdot/0,1607,7-151-9625\\_21540\\_36037\\_54428---,00.html](http://www.michigan.gov/mdot/0,1607,7-151-9625_21540_36037_54428---,00.html)

## **MDOT Technical Support**

Technical support is available through the following email addresses, which can also be found on the [Development Guide Help](#) page:

Design Surveys:	<a href="mailto:MDOT-Survey_Support@michigan.gov">MDOT-Survey_Support@michigan.gov</a>
Bridge Design:	<a href="mailto:MDOT-BridgeDesignSupport@michigan.gov">MDOT-BridgeDesignSupport@michigan.gov</a>
Drawing Tools, Printing, Workspace & Software Installation:	<a href="mailto:MDOT-CADDSupport@michigan.gov">MDOT-CADDSupport@michigan.gov</a>
Geometry Tools and Corridor Modeling:	<a href="mailto:MDOT-PowerGEOPAKSupport@michigan.gov">MDOT-PowerGEOPAKSupport@michigan.gov</a>

Geopak Drainage & Subsurface Utilities:	<a href="mailto:MDOT-Drainage-Utility@michigan.gov">MDOT-Drainage-Utility@michigan.gov</a>
Reference Information Documents (RID):	<a href="mailto:MDOT-RIDSupport@michigan.gov">MDOT-RIDSupport@michigan.gov</a>
ProjectWise - General (MDOT staff only):	<a href="mailto:MDOT-ProjectWise@michigan.gov">MDOT-ProjectWise@michigan.gov</a>
ProjectWise - Letting:	<a href="mailto:MDOT-ePROPOSAL@michigan.gov">MDOT-ePROPOSAL@michigan.gov</a>
ProjectWise - Consultant:	<a href="mailto:MDOT-ProjectWiseConsultant@michigan.gov">MDOT-ProjectWiseConsultant@michigan.gov</a>
ProjectWise - Construction:	<a href="mailto:MDOT-ProjectWiseCONST@michigan.gov">MDOT-ProjectWiseCONST@michigan.gov</a>