

# MDOT\_02 Workspace Update

7/1/2015

## Update Highlights

- Recent updates to the Development Guide.
- A Title Block Management tool is now available for management of sheet border text via an Excel spreadsheet.
- The Geopak sheet cutting tool has been updated for use with the MDOT\_02 Workspace, with support for a wide range of sheet scales and sheet formats.
- The sheet view level filters located at “MDOT Level Filters > Sheet View Filters” and have been updated for use with the MDOT\_02 workspace and are intended to be used for setup of levels in sheets. The menu item has also been set up to automatically launch the Level Display dialog in Filter mode.
- The Geopak plan view labeling tool has been updated to include new labeling options.
- Custom line styles for storm sewers, culverts, underdrain, rebar, bridge deck centerline, and bridge riprap have been updated, which will require users to manually update custom line styles in each base reference file (see below).
- A number of Civil Cells have been updated for road design.
- Modified drainage structure location reference points for 2D drainage cells.
- Proposed culverts will now be drawn to scale using multi-lines, which have been updated for this purpose.
- Sheet labels have been added for labeling of culvert size and flow direction.
- Legend sheet has been updated to reflect changes to custom line styles as well as minor changes to utility & drainage items.
- Survey support for conversion of design surveys from MDOT\_02 to MDOT\_01 format for plan production.

## Links to Previous Workspace Updates

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)

MDOT ProjectWise: Documents\Statewide Groups\Engineering Support Services\Updates and Announcements\

## 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.

### **Development Guide Updates**

Please note that [DA 2015-03](#) External Access, Process Improvement and RID Requirement Updates was released in March 2015. The information that is referenced as part of [DA 2015-03](#) and posted to the [Design Submittal Requirements](#) is intended to replace the content of [DA 2012-05](#) as a revision, replacement, or addition as noted in [DA 2015-03](#).

The following Sections/Files have been updated:

The [RID Review Checklist.xlsm](#) now provides added user functionality and a Discipline Coordination Box. See revised instructions for use of Discipline Coordination Box.

The [RID Index.xlsm](#) now provides added sort functionality. See the revised instructions.

The [RID Process](#) now includes clarification on how to post RID Changes after Advertisement.

Added ProjectWise Workflow State for RID: An "E-Proposal RID Complete" state has been added to the [ProjectWise Pre-Bid Processes](#) within the Letting-RID folder in ProjectWise. This State has been added to provide a final check for consistency of RID deliverables prior to posting.

The [Chapter 8 – ProjectWise Pre-Bid Processes](#) page has been updated to include the process improvement workflows.

Added the following Pages/Information:

Added Level Terminology to Section 3.4 Level Library in the [Standard Naming Conventions](#).

## **Workspace File Update Summary**

### **Title Block Manager**

A Title Block Manager tool (VBA) is now available for management of sheet border text. The tool uses an Excel spreadsheet to manage the text and populate MicroStation “tags” that have been embedded within the sheet border. The tags behave similar to Data Fields and are identical in positioning and format.

File: Full replacement of all files in folder.

Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Apps\VBA\Title Block Manager

Change: Updated VBA app for use with current title block, added a number of enhancement, added input file, eliminated need for separate sheet borders for View1-4 option.

File: Sh\_Sheet\_Borders.cel

Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Elements\Cells

Change: Updated sheet border cells for use with Title Block Management tool.

File: Sh\_Sheet\_Borders\_Old.cel

Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Elements\Cells

Change: Removed obsolete cell library.

File: Interface\_MDOT.dgnlib

Location: M:\MDOT\_02 Workspace\Interfaces\MicroStation\mdot\_02

Change: Removed the obsolete “Title Block Tag Set Utility” tool from “MDOT Tools > Sheet Tools”.

### **Sheet Cutting**

The Geopak sheet cutting tool has been updated for use with the MDOT\_02 Workspace and now supports the following scales for all sheet types:

40x: 40, 80 Scale (used at an scale that is a multiple of 40)

50x: 50, 100, 200, 300, 400, 500 Scale (used at an scale that is a multiple of 50)

File: MDOT\_P&P\_Sheet\_Lib.psl

Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Civil Classic\Plan & Prof Sheets

Change: Updated for use with the MDOT\_02 workspace and to support all sheet types and scales.

File: MDOT\_P&P\_Sheet\_Lib - Orig.psl

Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Civil Classic\Plan & Prof Sheets

Change: Removed obsolete file.

## Sheet View Filters

The sheet view level filters located at “MDOT Level Filters > Sheet View Filters” and have been updated for use with the MDOT\_02 workspace and are intended to be used for setup of levels in sheets. These filters are not supported in the Level Manager dialog and only work in the Level Display dialog, which must be set to “Filter” mode. In order to help simplify the process, the drop-down menu item has been modified to automatically load the Level Display dialog and switch from Level to Filter mode.

File: Sheet\_View\_Filters.dgnlib

Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Civil Standards\General\Level Filters

Change: Updated all Sheet View Filters to reflect level changes between the MDOT\_01 and 02 workspaces.

File: Interface\_MDOT.dgnlib

Location: M:\MDOT\_02 Workspace\Interfaces\MicroStation\mdot\_02

Change: Updated the “MDOT Level Filters > Sheet View Filters” menu item, to load the Level Display dialog rather than the Level Manager dialog and set it to Filter mode.

File: LevelDisplayDialogFilterMode.ba

LevelDisplayDialogFilterMode.bak

LevelDisplayDialogFilterMode.bas

Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Apps\Macros

Change: Added macro for use with the “MDOT Level Filters > Sheet View Filters” menu item, to set the Filter mode within the Level Display dialog.

## Sheet Labeling

File: MDOT\_Plan.lsf

Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Civil Classic\Labeler Style Files

Change: Revised with new styles.

## Profiles

File: MDOT\_02.pcf

Location: M:\MDOT\_02 Workspace\Projects

Change: Added config variable to load Profile\_01.dgnlib to add profile levels.

File: MDOT\_GrndPro.ini

Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Apps\VBA

Change: Updates to ground point level names.

File: Features\_CivilClassic\_MDOT.ddb

Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Civil Standards\General\Features

Change: Updated levels for side ground profiles.

File: Profile\_01.dgnlib

Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Civil Standards\General\Features

Change: Removed levels that duplicated levels in Features\_General\_MDOT.dgnlib and cleaned up ground point level names.

## Custom Line Styles

File: Custom\_Line\_Styles\_MDOT.rsc  
Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Elements\Styles\Custom Line Styles  
Change: Drainage: Updates to culvert, storm sewer, and underdrain custom line styles.  
Change: Bridge: Updates to rebar, deck centerline, and riprap custom line styles.

File: Features\_General\_MDOT.dgnlib  
Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Civil Standards\General\Features  
Change: Drainage: Updates to culvert, storm sewer, and underdrain custom line styles.  
Change: Bridge: Updates to rebar, deck centerline, and riprap custom line styles.

### **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.

## Roadway Design

File: MDOT\_BoulevardCrossRoad.dgnlib  
MDOT\_Dr\_atEOP.dgnlib  
MDOT\_Dr\_CnG\_wDetL.dgnlib  
MDOT\_Dr\_CnG\_wDetM.dgnlib  
MDOT\_Dr\_CnG\_wShldr.dgnlib  
MDOT\_Dr\_Res\_atEOP.dgnlib  
MDOT\_Dr\_wShldr.dgnlib  
MDOT\_SideRd\_CnG\_SideRdProfReqd\_NoTaper.dgnlib  
Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Civil Standards\Civil Cells  
Change: Revised civil cells.

File: MDOT\_SideRd\_CnG\_SideRdProfReqd\_wAltTypAShldrAndTaperedTie.dgnlib  
MDOT\_SideRd\_CnG\_SideRdProfReqd\_wTypAShldrAndTaperedTie.dgnlib  
MDOT\_SideRd\_CnG\_wAltTypAShldrAndTaperedTie.dgnlib  
MDOT\_SideRd\_CnG\_wTypAShldrAndTaperedTie.dgnlib  
Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Civil Standards\Civil Cells  
Change: Added new civil cells.

File: MDOT\_SideRd\_wAltTypAShldrAndTaperedTie.dgnlib  
Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Civil Standards\Civil Cells  
Change: Removed and replaced with MDOT\_SideRd\_CnG\_wAltTypAShldrAndTaperedTie.dgnlib.

File: MDOT\_SideRd\_wTypAShldrAndTaperedTie.dgnlib  
Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Civil Standards\Civil Cells  
Change: Removed and replaced with MDOT\_SideRd\_CnG\_wTypAShldrAndTaperedTie.dgnlib.

File: MDOT\_CorMod\_Template\_Library\_Master.itl  
Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Civil Standards\Roadway Templates  
Change: Updated Hinge feature style in all components and examples to match new level symbology.

File: Features\_General\_MDOT.dgnlib  
Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Civil Standards\General\Features  
Change: Added ~ to "Slope\_Breakline\_Pr\_HingePt" level name to make non-plotting with level filters.

### Drainage

File: Dr\_Drain\_2D.cel  
Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Elements\Cells  
Change: Modified construction location elements based on pending standard plan changes to standardize drainage structure location reference points. Updated manhole and round catch basin cover dimensions. Added arch culvert end sections.

File: MultiLineStyle\_MDOT.dgnlib  
Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Elements\Styles\MultiLine Styles  
Change: Revised multi-line styles for use with culverts. Modified to display at full width when construction elements are turned off rather than displaying only the centerline. Added additional pipe width options. Converted file from metric to English.

File: Sh\_Sheet\_Labels.cel  
Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Elements\Cells  
Change: Added culvert label cells with both dimension fields and flow arrows. For current projects utilizing the MDOT\_02 Workspace, please label culverts with one of these cells since the arrow-type line style has been removed. Also, redraw proposed culverts with the multi-line tool with the correct dimension style.

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

### GEOPAK Drainage

File: MDOT\_DrainTab.mvba  
Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Apps\VBA\Drainage Reports  
Change: Updated Drainage Area field to accommodate a supplied discharge value.

File: MDOT\_Drain\_Lib.dlb  
Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Civil Classic\Drainage  
Change: Added large diameter drainage structures per Road Special Detail R-1-G.

File: MDOT\_Drain\_Pref\_Prof.ppf  
Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Civil Classic\Drainage  
Change: Updated labeling symbology settings.

## SUE / SUDA

File: Drain\_3D\_MDOT.cel  
Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Civil Standards\SUDA  
Change: Ongoing SUE development.

File: Ut\_Uilities.cel  
Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Elements\Cells  
Change: Removed 3D cell alignment elements from existing NoID and sanitary cells. Updated manhole and round catch basin cover dimensions. Modified Sewer Cleanout description.

File: Features\_General\_MDOT.dgnlib  
Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Civil Standards\General\Features  
Change: Removed rendering materials from drainage levels. Modified level settings for SUDA points.

## Structures

File: Bridgenotes.dat  
Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Apps\VBA\data  
Change: Updated to correspond with the changes to the Bridge Design Manual in the May design publications monthly update.

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)

It is anticipated that a workflow document and support files to execute this conversion will be released in the next workspace release.

File: Features\_Survey\_MDOT.smd  
Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Civil Standards\Survey  
Change: Updated to address font issue.

File: Features\_Survey\_MDOT.xml  
Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Civil Standards\Survey  
Change: Updated to address font issue.

File: 051115\_MDOT\_02.mdb  
Location: M:\MDOT\_02 Workspace\Projects\MDOT\_02\Civil Standards\Survey  
Change: Updated to address font issue.

## Legend Sheets

File: Legend\_Sheets\_MDOT\_02\_Draft\_2015-07-01.dgn  
Location: M:\MDOT\_02 Workspace\Sheets  
Change: Updates to utility & drainage sections of legend sheet. Note that the existing end section cell has been removed and the culvert & storm sewer line styles have been changed.  
Note: The legend will be expanded over time, as CADD standards are developed for each of the specialty design groups.  
Links: Web: [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 ProjectWise: Documents\Reference Documents\PowerGEOPAK\_Resources\MDOT\_02\Plan Production\Sheets\

## 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@michihgan.gov">MDOT-ePROPOSAL@michihgan.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>