

Mobile District Advanced Modeling (AM) Bulletin Binding Civil 3D Sheets SAM AMB 2020-02

Based on the standards produced by the



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Mobile District
Engineering Division
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1. New bulletin 2020-02
2. Additional method to deal with corrupt files, 20200804
3. Additional notes to clarify the 'bind' and 'include sheets' settings, 20200814

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Requirements

Most design projects have a requirement for delivery of bound CAD files as part of the final deliverables in which all SHEET files are to be bound, including AutoCAD DWG and Microstation DGN files. In satisfying this requirement, Autodesk Civil 3D (DWG) files can be difficult to bind properly such that plain AutoCAD can open them without issues. The following is a prescribed workflow using the Civil 3D Export function to accomplish the binding. The results are bound files that are readable with plain AutoCAD without the Civil 3D features.

Exporting from ProjectWise

The most expeditious method to bind files housed in ProjectWise is to perform an export of the files to a local drive.

The most important requirement of exporting from ProjectWise is to ensure that all references are also exported. There are several ways to export from ProjectWise, The simplest method is described below. For other methods, see the Bentley ProjectWise help files.

Selecting Files

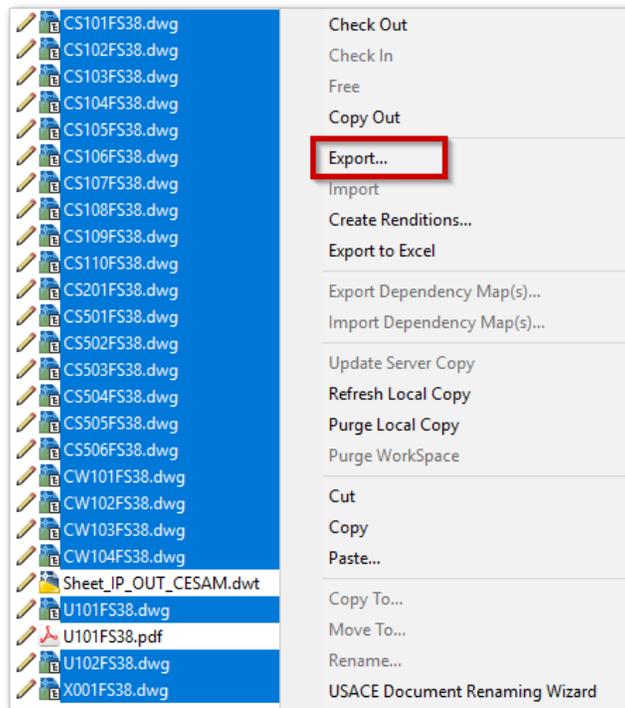
Individually select the files to be bound.

Ctrl-A will select all.

Shift-Click allows range selection.

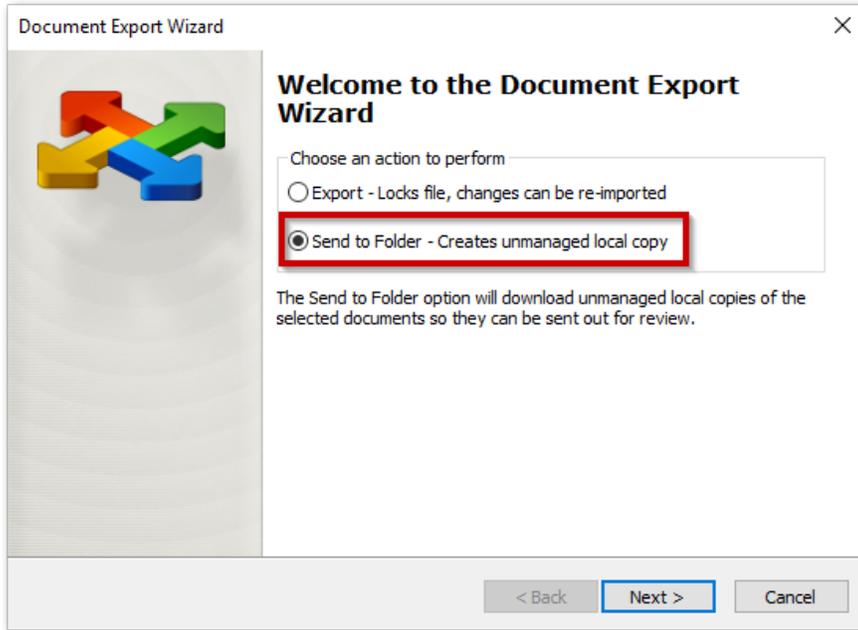
Ctrl-Click will add/remove individual files.

Right-Click to access the menu and select **Export...** to begin the export process.

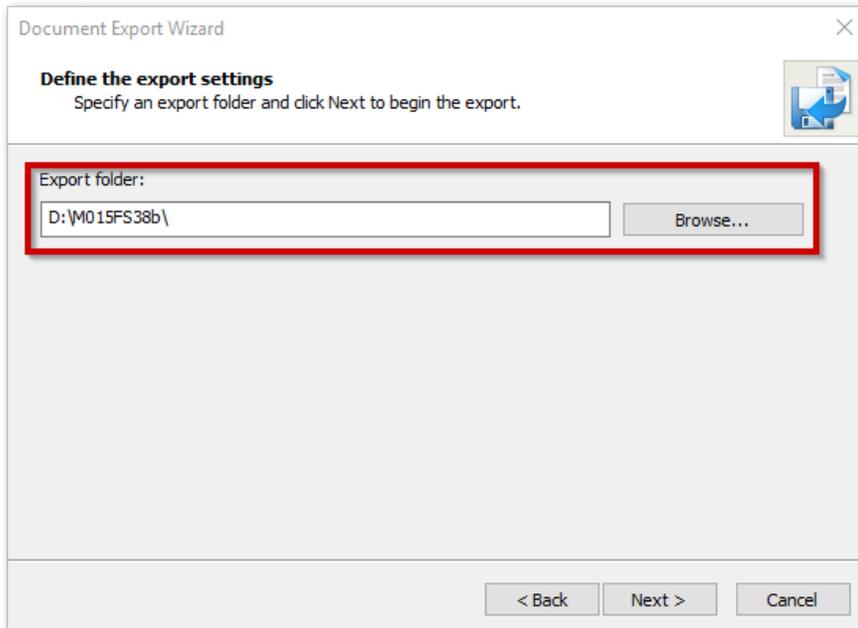


Exporting to Local Folder

Select the *'Send to Folder – Creates unmanaged local copy'*. This option exports copies of the files to a local folder.



Specify a local folder for the export.



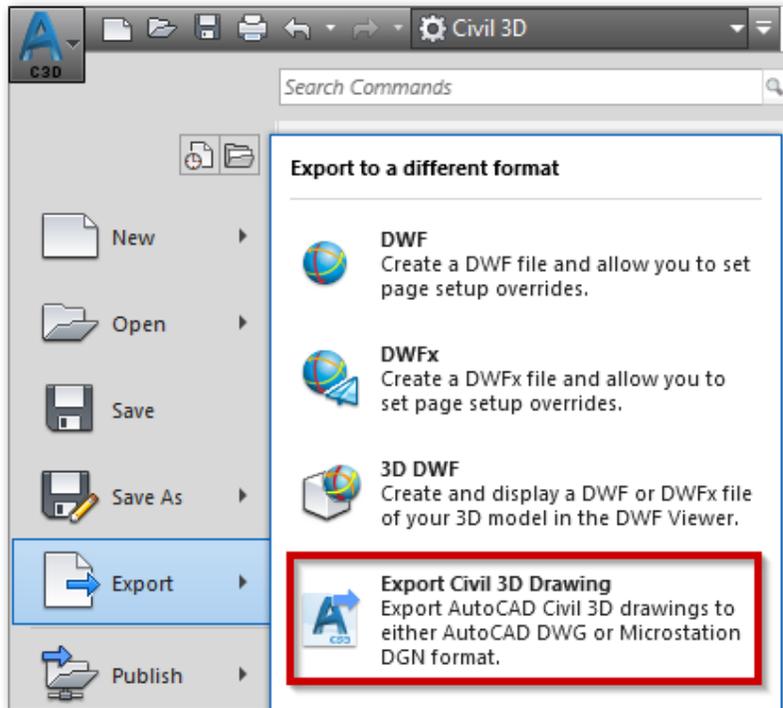
All selected files and linked references (as known to ProjectWise) are exported to the selected local folder location.

Civil 3D Drawing Export Function

This function exports Civil 3D files to AutoCAD DWG or MicroStation DGN.

Open Civil 3D and ensure a file is open (this can be a blank file).

Select *'Start', 'Export', 'Export Civil 3D Drawing'*



For additional help with the Civil 3D Export Drawing function, see the Autodesk helpfile, <http://help.autodesk.com/view/CIV3D/2018/ENU/index.html?guid=GUID-B169346B-CB43-4DF2-B5A2-262440086313>

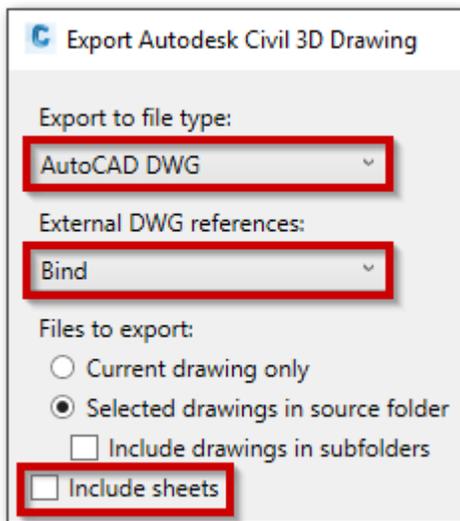
Civil 3D Drawing Export Options

Export file type – Select *AutoCAD DWG*

External DWG references – Select *Bind*. This option will bind all references and create a block for each reference with layers named using blocknames syntax. **This allows for retention of layer states.**

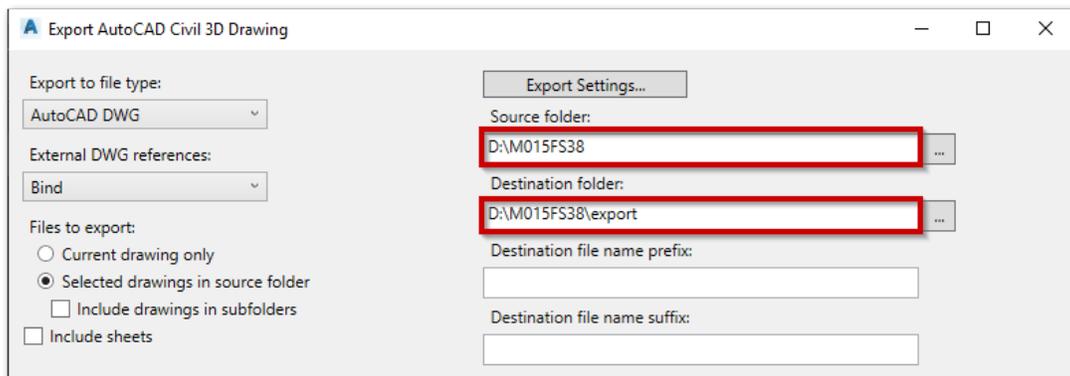
Files to export – To perform bulk processing, select the *'Selected drawings in source folder'*

Include sheets – **OFF**. For USACE projects, this option should be turned off.



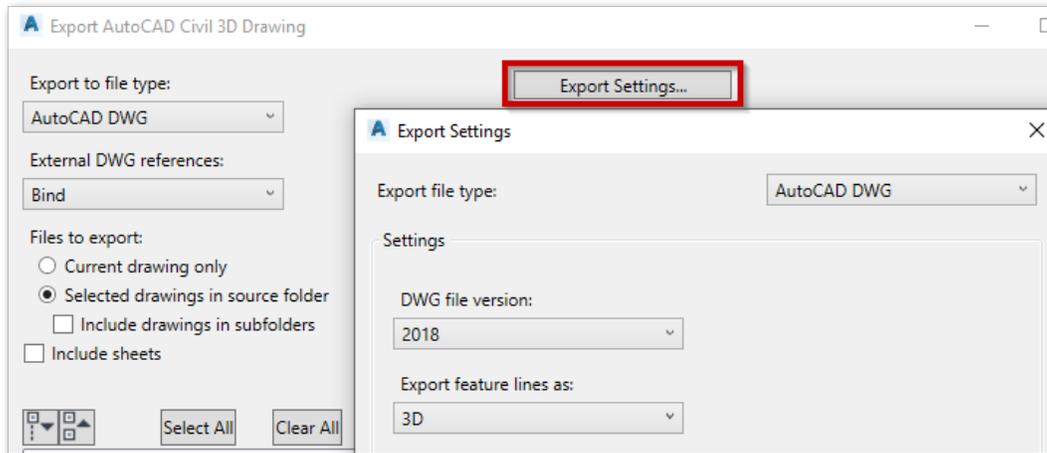
Export Folder Locations

Specify the source folder from where the files are located, and specify the destination where the bound files will be created.

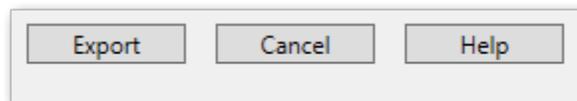


File Format Export Options

Click the *Export Settings...* button to define the file format options.



Click the Export button at the bottom of the Civil 3D Export Drawing dialog box to begin the export.



Potential Challenges

There can be multiple challenges associated with binding Civil 3D files.

Missing References

Missing references could be the result of designers referencing files from local drives or deleted files. For ProjectWise housed files, missing references can also result from designer attaching references using local copies of the files instead of referencing files directly from ProjectWise. The short-term solution is to manually locate the missing files and copy them to the sheet file local drive location.

Corrupt Files

Corrupt files can crash the Civil 3D application, which often may require a system restart in order to resume the binding process. The best practice is to make note of which sheet file binding crashed Civil 3D. Resolving corrupt files involve performing a Recovery command (within Civil 3D) and purging the sheet file. If the sheet still fails to bind, the next step is to try to manually bind each reference to see which reference file may be causing the binding issue.

If a reference file is deemed corrupt, perform recovery/purge on the reference file, save the file and try again binding the affected sheet file again.

Another solution to dealing with problematic reference files that won't bind is to perform the Civil 3D Drawing Export command on the suspect reference file itself first.

Output Files

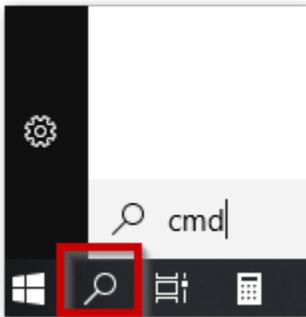
Reviewing Bound Files

It is good practice to review the bound files using plain AutoCAD or running Autodesk Civil 3D as AutoCAD, check for errors and missing lineworks. These can be checked against the original un-bound files, or against the PDF set.

Renaming/Correcting File Names

The Civil 3D Drawing Export function adds suffixes to the output files. For example, sheet file C100FS001.dwg exports to C100FS001-Model.dwg. These output files will need to be renamed properly and can be done manually. Alternatively, the Windows Command Prompt or PowerShell can be used to facilitate renaming. Below is the Windows Command Prompt method.

To use the Command Prompt, click on the Windows Run or Windows Search bar and type in *'cmd'*.



With a Command Prompt window open, navigate to the bound files folder using the *'CD'* command (for a list of commands, type in *'help'*).

Use the command *'rename'* and the following combination of wildcards to achieve the required file names.

To rename

C100FS001-Model.dwg

C100FS002-Model.dwg

C100FS003-Model.dwg

To

C100FS001.dwg

C100FS002.dwg

C100FS003.dwg,

Use *'rename *.dwg ????????.dwg'*. The eight *'?'*s tells the system to use the first eight characters and discard the remaining characters.

For more complex renaming schemes, please refer to online tutorials and resources.

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