User Guide

CIVIL CONSTRUCTION
April 2023

Export Civil 3D Data for Use in TBC and Field Apps

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Introduction

Solid design data is essential for creating a constructible model in Trimble Business Center (TBC) for use in field systems, such as Trimble Siteworks and Earthworks. It is incredibly helpful to get as many engineering CAD files into TBC as possible to create that foundation.

These files can come in many formats and styles. To simplify the process of importing this data, follow the guidance below.

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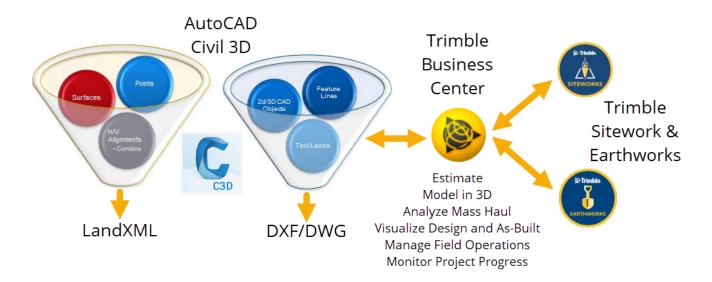
AutoCAD Civil 3D Data Types

AutoCAD Civil 3D[®] design data is typically composed of different data types. These can include, but are not limited to:

- Surfaces
- Points
- Alignments
- Corridors
- Solids
- Utility networks (e.g., storm and sewer)

Other data formats can be made of combinations of 2D or 3D lines, arcs, circles, etc.

One of the most common delivery methods for preparing this data for construction applications like TBC is to create LandXML files from some types of project data, along with a DWG/DXF of remaining data types. When using the DWG export format, some work must be done to convert proprietary AutoCAD objects into simpler CAD objects.



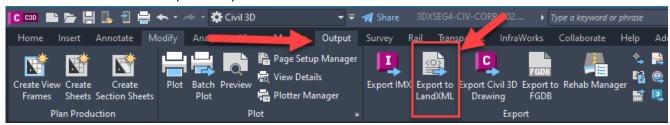
Export surfaces, points, and alignments to LandXML.

Export 2D and 3D CAD objects, feature lines, and text/labels to DXF/DWG.

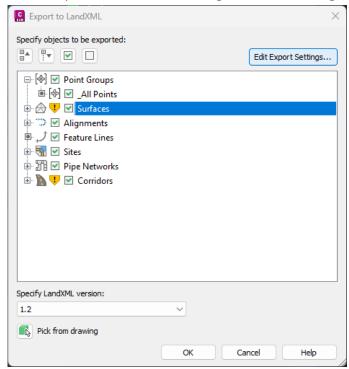


Export Civil 3D Data to LandXML

- 1. Open AutoCAD Civil 3D.
- 2. Open the Master Design Drawing that contains the source project data you want to export to LandXML format.
- 3. On the ribbon, select Output > Export to LandXML.



4. In the Export to LandXML dialog, select the design objects you wish to export.



You can include any of the objects shown in the export.

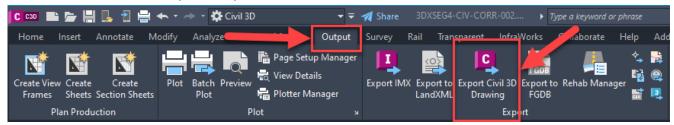
Recommendation: Export separate a file for each type of object to better QA/QC the import into TBC. Example: Check the Surfaces box to export all surfaces to LandXML. Then import that file into TBC and verify the data.



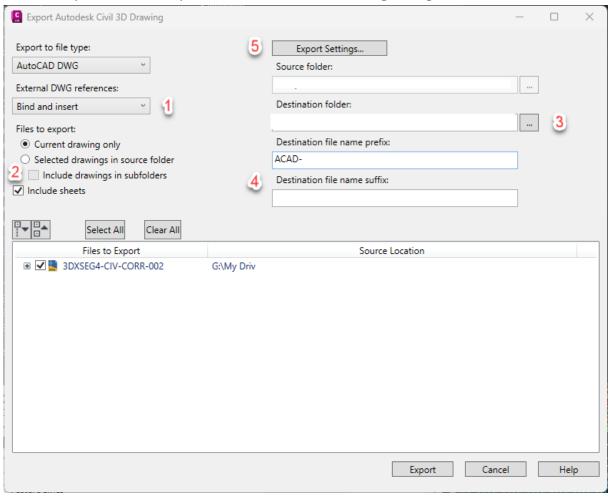
- 5. Click OK.
- 6. Choose a location in which to save the .xml file.
- 7. Give the exported file a descriptive name (optional).

Export Civil 3D Data to DWG

1. On the ribbon, select Output > Export Civil 3D.

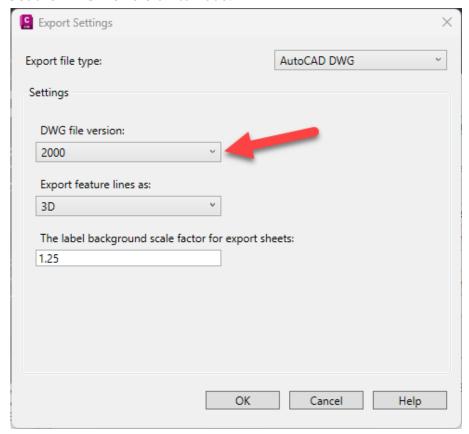


2. Set these options in the Export AutoCAD Civil 3D Drawing dialog.





- a. Set External DWG References to: Bind and Insert
- b. Set Files to export to: Current drawing only
- c. Specify the path for the folder you want the file exported to.
- d. Enter a Suffix or Prefix for the File name. (optional)
- e. Click the Export Settings button.
- f. Set the DWG file version to 2000.



- 3. Click OK to close the Export Settings dialog.
- 4. Click Export in the Export AutoCAD Civil 3D Drawing dialog box. The results will show.
- 5. Click OK to close the Export Status.
- 6. Click Cancel to close the Export AutoCAD Civil 3D Drawing dialog.
- 7. Repeat as necessary.

