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Technical Note (TcpMDT_en_v75_utl005_Export Topcon Magnet)

Export from MDT to Topcon Magnet Field

Date update

06/04/2017

Requirements

MDT versions: 7.5 or higher CAD versions: All supported Operating system: Windows 7/8/10

You must also have installed version 7.5.18 or higher of the LandXML import and export module, which can be checked in **MDT7> About TcpMDT**.

<u>Thanks</u>

We appreciate the advices given to Constantí Serra and Olaya Cachero, Topcon Spain support technicians.

<u>Objective</u>

This Technical Note describes the procedure for exporting a road or segment of MDT to LandXML format that can be interpreted by Topcon's Magnet Field version 3.0 or higher. To do this, we have described it through the following steps:

Generation of the LandXML file with MDT

Import LandXML file with Magnet Field

Generating a LandXML file with MDT

1. Execute the command **MDT** *Utilities> Export to LandXML*, and the following window will appear:

Export LandXML file			×
General Data			
Project		Drawing1	
Author			
Elements			
Type Source		Name	
Del	ete	Na	me
Points (NXYZ)	Surface	Alignment/Segment	Cross-Section
Export drawing plots			
View XML document			Options
	OK	Cancel	

2. Press the button *Options* and select the variant "Topcon Magnet v3.0 or previous".

Export LandXML file	×
Target Application	
◯ Leica GeoOffice	
O Topcon Magnet v2.7.1 or older	
Topcon Magnet v3.0 or newer	
O Hexagon XML	
◯ Autodesk Revit	
Template lines. Discretization interval	1.000
OK Cancel	

3. Press the button **Alignment / Segment** and select the segment to be exported. Select the segment file, for example <code>Topografico.seg</code>.

Export LandXML	file		×
General Data			
Project		Drawing1	
Author			
Elements			
Туре	Source	Name	
Alingment Profile Cross Section Grade Line Roadbed Section Subgrade Sectio	topografico.SEG topografico.SEG - topografico.LON topografico.SEG - topografico.TRA topografico.SEG - topografico.RAS n topografico.SEG n topografico.SEG	topografico topografico topografico topografico topografico (Roadbed Section) topografico (Subgrade Section)	
	Delete	Name	
Points (N)	(YZ) Surface	Alignment/Segment	Cross-Section
Export drawing	g plots		
View XML doo	cument		Options
	ОК	Cancel	

We look at the list of all the elements that will be exported to the LandXML file automatically.

4. Press the **OK** button and the command will ask for the XML file to which all the information will be exported. Enter the name of the destination file, for example Topografico.xml.

This generated file is ready to be imported from the Magnet Field software.

Import LandXML file with Magnet Field

1. Start application and enter Exchange> File.



2. Select the option *Multiple* within Data and the format *LandXML*. Click *Next* button.



3. Now choose the exported file *Topografico.xml* and validate.



4. Assign the correct coordinate system and validate.

Projection	SPAIN-30 UTM ETRS89	· · · · ·
	Use Grid/Ground	
Datum	ETRS89	
Geoid Model	EGM2008	
Coord Type	Grid	

5. Now must be shown a line with the exported road. Keep the selection active and press *Next*.



6. Select the name of the road (in our case topografico) and validate.



7. Importation should be successful. Press *Close* button.



8. From the main menu of **Magnet Field**, enter *Edit> Roads*.



9. Now select the option *Roads*:



10. The horizontal and vertical alignment must be correctly displayed. The crosssections can also be visualized, and proceed to the stakeout.

References

Video

Import surveys from Topcon Magnet Field to MDT