

## Geosoft GDB import for Workbench – TEM data

With Workbench 6.7, it is now possible to import TEM data from Geosoft GDB files into the ground based Towed TEM and airborne TEM extensions.

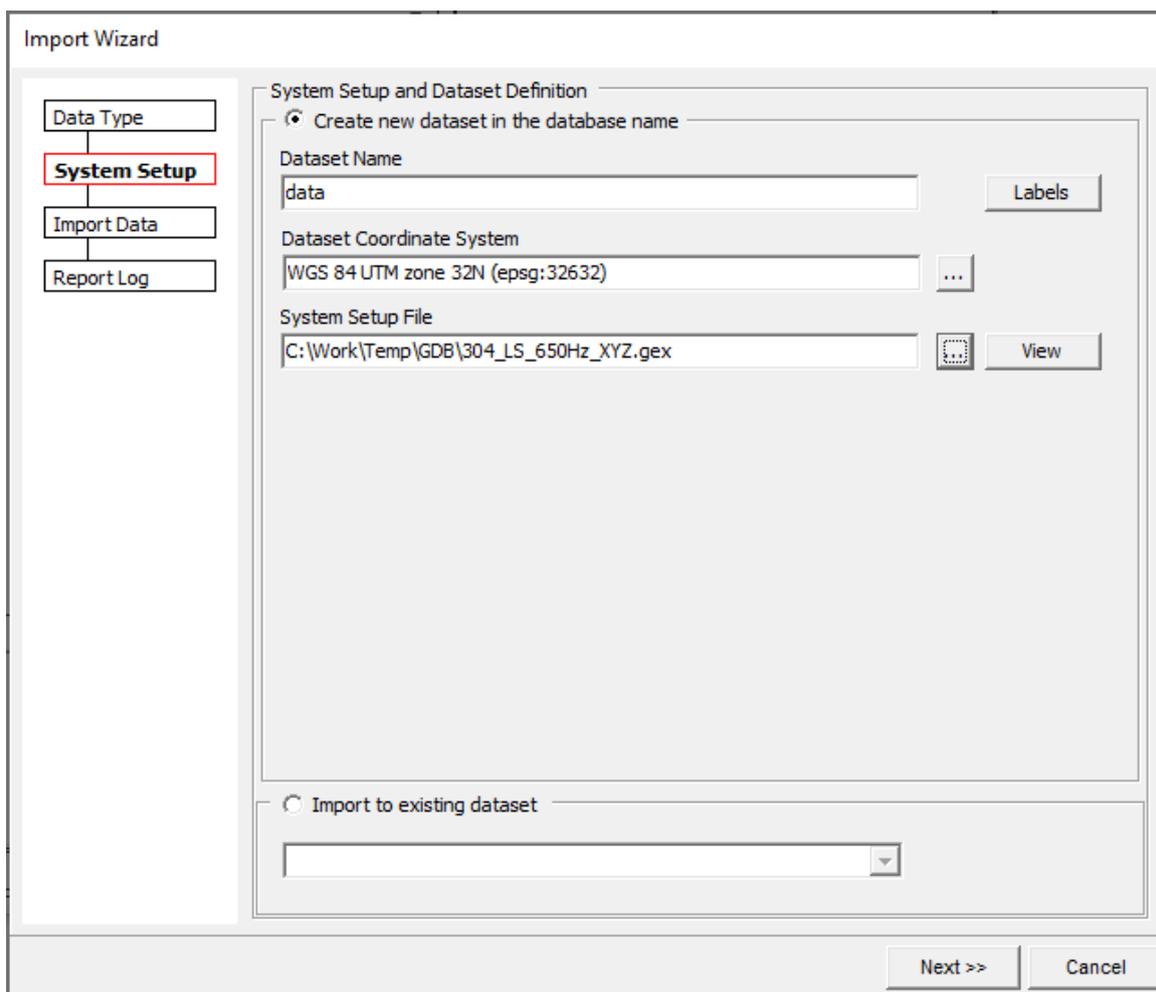
### Import example for SkyTEM data

1. In Workbench, click the Import button on the Database ribbon. Pick the Airborne TEM processing.

2. Pick the data type.

3. Fill out dataset name, select coordinate system and point to the system setup file (.gex) [read more](#) for examples of different .gex files for different instruments.

**Note:** Data exported from Workbench to a Geosoft GDB files can also be imported. Note that this requires a slightly edited geometry file compared to the original import as things like Gatefactor, UniformDataSTD only should be applied once, and not on every import.



The screenshot shows the 'Import Wizard' dialog box, specifically the 'System Setup and Dataset Definition' step. On the left, a vertical navigation pane contains four buttons: 'Data Type', 'System Setup' (highlighted with a red border), 'Import Data', and 'Report Log'. The main area is titled 'System Setup and Dataset Definition' and contains two radio button options. The first option, 'Create new dataset in the database name', is selected. Below it, there are three input fields: 'Dataset Name' with the text 'data' and a 'Labels' button; 'Dataset Coordinate System' with the text 'WGS 84 UTM zone 32N (epsg:32632)' and a '...' button; and 'System Setup File' with the text 'C:\Work\Temp\GDB\304\_LS\_650Hz\_XYZ.gex' and a 'View' button. The second radio button option, 'Import to existing dataset', is unselected and has an empty dropdown menu below it. At the bottom right, there are 'Next >>' and 'Cancel' buttons.

4. On the next page, select the Geosoft gdb file.

Import Wizard

Data Type

System Setup

**Import Data**

Report Log

Load Files

Data File   View

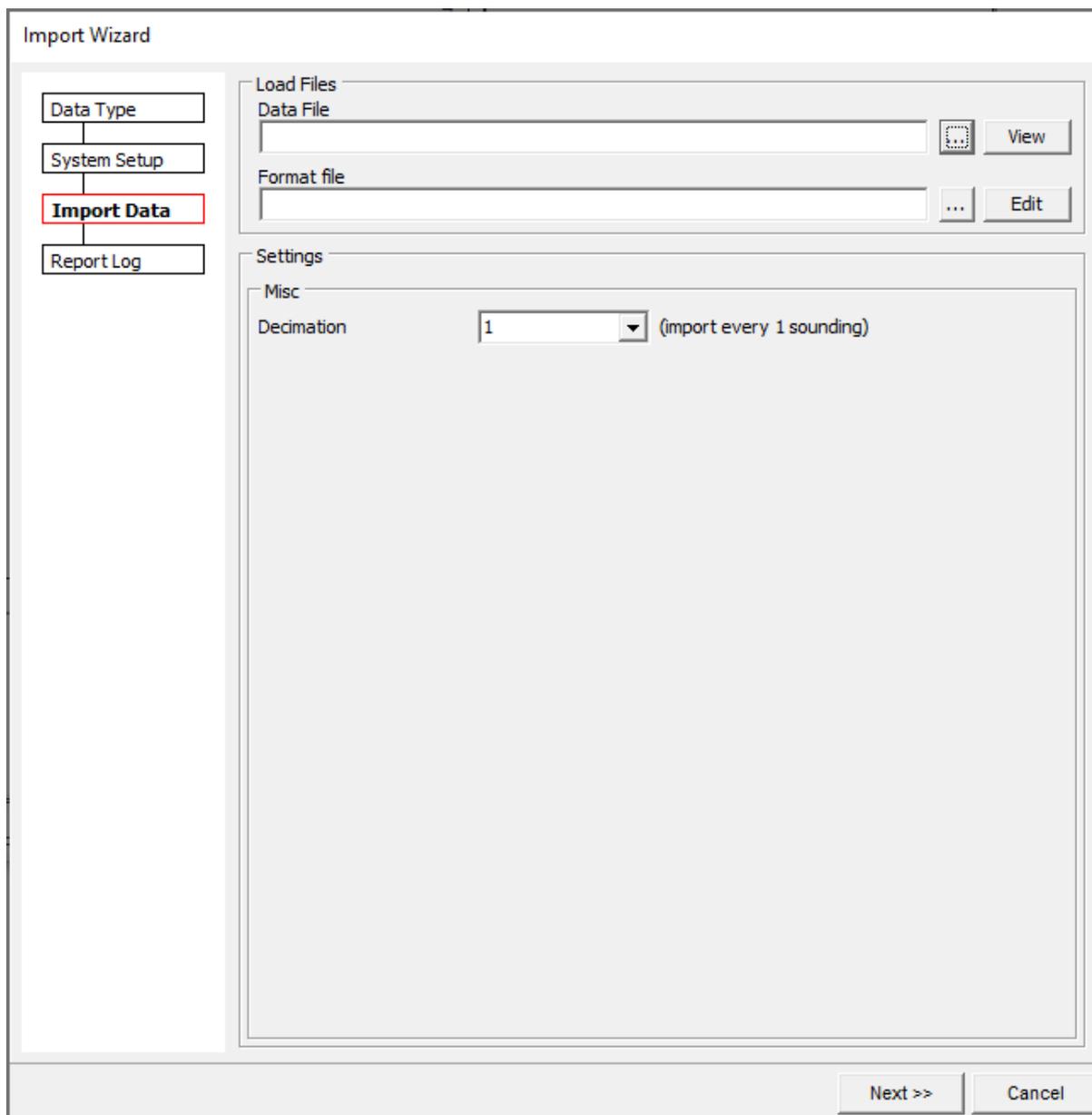
Format file  ... Edit

Settings

Misc

Decimation  (import every 1 sounding)

Next >> Cancel

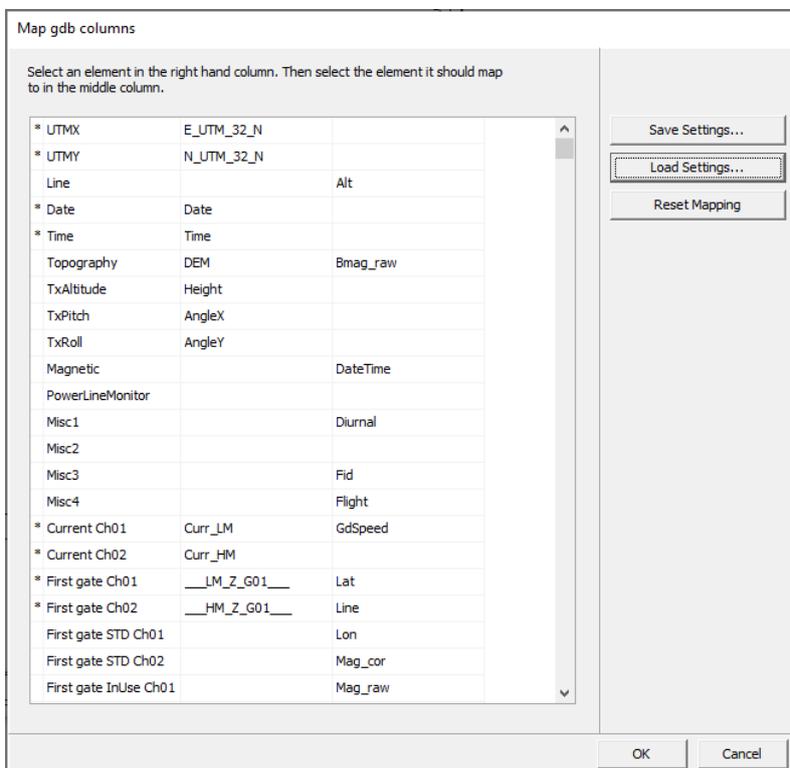
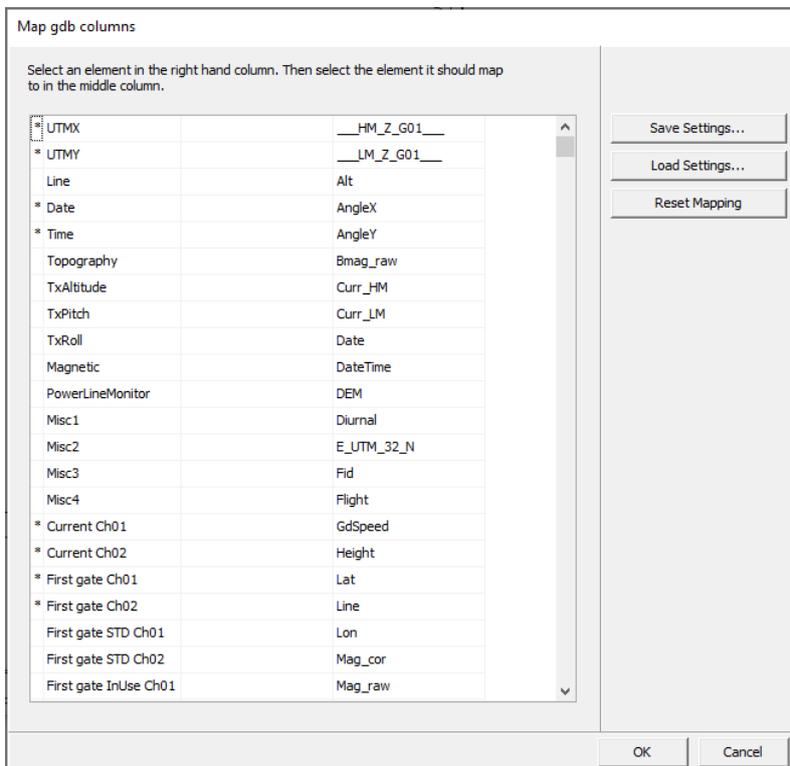


5. When a GDB file is loaded the GDB column mapper will open

Here the column headers of the GDB file shown on the right needs to mapped to the fields on the left.

First click on an element to the right and then click on an element in the center next to the corresponding field on the left.

The required fields to import, are marked with a \*.



6. When the mapping is done the import data page of the wizard has changed.

The importer requires the time to be ascending. The GDB files are sorted by line numbers, so we need to import with dummy times as it is frequently done with other data types.

Use **Edit** to open column editor. Locate and click the header of the Time and Date column headers to remove those from the next step of the import. Click save and close.



Alc File Editor

Format file fields

- Date X
- Dummy
- Line
- Magnetic
- Misc1
- Misc2
- Misc3
- Misc4
- PowerLineMonitor
- RxPitch
- RxRoll
- Time X
- Topography X
- TxAltitude X
- TxOffTime
- TxOnTime
- TxPeakTime
- TxPitch X
- TxRoll X
- TxRxHoriSep
- TxRxVertSep
- UTMX X
- UTMY X
- Gate\_Ch01\_begin X
- Gate\_Ch01\_end X
- STD\_Ch01\_begin
- STD\_Ch01\_end
- InUse\_Ch01\_begir

XYZ File

Date	Topography	UTMX	TxAltitude	UTMY	Time
2019/06/12	368.6	558030.940	111.2	6977025.134	09:45:16.300
2019/06/12	368.7	558032.663	110.8	6977025.927	09:45:16.400
2019/06/12	368.7	558034.415	110.5	6977026.705	09:45:16.500
2019/06/12	368.8	558036.192	110.1	6977027.466	09:45:16.600
2019/06/12	368.9	558037.990	109.7	6977028.205	09:45:16.700
2019/06/12	369.0	558039.806	109.3	6977028.919	09:45:16.800
2019/06/12	369.0	558041.637	108.9	6977029.606	09:45:16.900
2019/06/12	369.1	558043.478	108.4	6977030.263	09:45:17.000
2019/06/12	369.2	558045.328	108.0	6977030.887	09:45:17.100

Settings

Dummy Value:

Number of channels:

File Version

Help

Select a keyword on the left side list.

To delete a column header, just click on its name.  
(Double click to delete all the gates from a channel).

Save Close

- Last step is to change the time setting from “Read from file” to “Define start time”.  
If the sounding distance is known, set this as the value, otherwise 1 second can be used.

The filters for the TEM data can be used in distance instead of time if the sounding distance is not known.

Make sure the Units for voltage and data normalization match the units in the GDB file. Then Click next to import.

**Import Wizard**

Data Type  
System Setup  
**Import Data**  
Report Log

**Load Files**

Data File  
C:\Work\Temp\GDB\EM\_MAG\_UTM32N.gdb ... Map

Format file  
C:\Work\Temp\GDB\EM\_MAG\_UTM32N.alc ... Edit

**Settings**

**Time**

Define start time: 14/07/2010 12:00:00

Nominal speed [km/h]

Sounding distance 0.1 [sec]

Read from file

Time format: yyyy/mm/dd hh:nn:ss.zzz

**Units**

Voltage unit pV [1e-12]

Data normalized Current, Tx effective area and Rx are:

Transmitter peak current  data file  nominal 1 [Amp]

**Misc**

Decimation 1 (import every 1 sounding)

Next >> Cancel