

## Introduction:

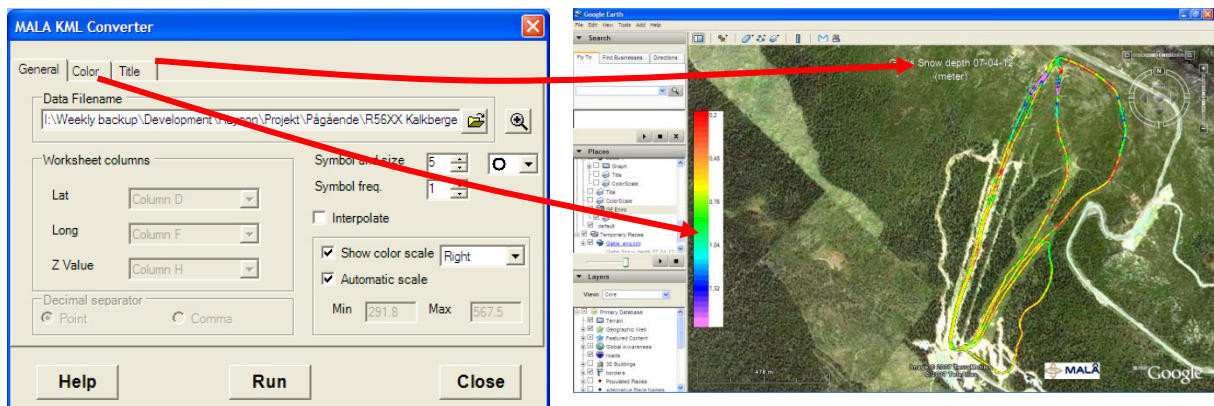
MALÅ GPS Mapper provides you an easy tool to visualize interpretations from radar and GPS data in Google Earth. In short, the program allows you to:

- Display measured radar profiles - from anywhere on the Globe - in Google Earth.
- Display radar interpretations (layer thickness, depth to interface etc) in Google Earth.
- Avoid struggling with coordinate conversion between different coordinate systems.
- If needed, use your own maps (as overlays in Google Earth) for presenting your results.

## Handling:

The software converts and handles three different file types.

- Markers from MALÅ GPR mrk-files.
- The GPS track from MALÅ GPRcor-files.
- Files (exported from Reflex or RadExplorer) containing the radar interpretations.



For download and installation of Google Earth go to [www.earth.google.com](http://www.earth.google.com). For non-commercial use, download the free version.

Start to run the MALÅ GPS Mapper installation program.

After installation and start of the MALÅ GPS Mapper, the first screen to appear is the *General* tab. The available selections and settings depend upon the file type to be converted. Before creation of the KMZ file that Google Earth reads (by pressing the RUN bottom) other available settings and option is available under the *Color* and *Title* tabs.


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**Quick steps:**

1. Select the file type you want to import  (\*.mrk, \*.cor or text files).
2. If necessary, change the palette settings in the *Color* tab. The allowed settings depend on the data to be displayed. Marker files (\*.mrk) and lat/long position data from \*.cor files can only be displayed in one color. Layer interpretations (from text files) can be visualized with the full range of colors, available in the *Color* tab.
3. In the *Title* tab, add header text if required. Also the font type, size and color can be controlled.
4. Finally, press the *Run* button to create a KMZ file. The KMZ file is created in the active directory. Double-click the KMZ-file to present the result in Google Earth.


**DISPLAY MARKER FILES (\*.mrk)**

The MALÅ GPS Mapper handles marker files automatically. The software automatically uses the appropriate coordinate file to read the latitude and longitude values corresponding to the trace number for the markers. When you select symbol and size in the *General* tab, it is recommended to use "X" symbol and size at least 3. The size unit is meter, used when displaying the data in Google Earth. Only one color is available for marker data. Double click on the palette manager bar if you want to change color. The *Title* tab is used to supply e.g. header information\*. When satisfied with the settings, press the RUN button and give a name for the KMZ file. The file is created in the working directory, also containing your input data file.

**DISPLAY COORDINATE FILES (\*.cor)**

The coordinate file contains the complete track of the actual radar survey. Press the "open file" button in the *General* tab and select the coordinate file. Coordinate files are handled automatically. If you only want to display the lat/long position it is recommended to interpolate the lat/long data. When interpolation (in the *General* tab) is selected, only one data class (and therefore one color) can be used. If a DGPS or RTK GPS have been used the elevation data is of good quality and can be displayed. In this case do not allow interpolation and you can freely select number of classes and change your palette. When satisfied with the settings, press the RUN button and give a name for the KMZ file. The file is created in the working directory, also containing your input data file.

**DISPLAY INTERPRETATIONS FROM REFLEX AND RADEXPLORER**

If a layer or point objects have been interpreted and exported from the processing and interpretation software Reflex or RadExplorer, the converter program imports this information as text files. The requirement is that latitude, longitude and depth information to the layer /object is organized in columns. Press the "open file" button in the *General* tab and select the file containing the interpretation\*\*. Then press the  button to show the data. In the *General* tab you can then specify which columns corresponds to latitude, longitude and Z-values. The Z-value can be e.g. the interpreted layer thickness or the depth to an interface. This process is illustrated below:

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\* When displaying marker or coordinate files in combination with a layer, it is advisable not to add in any header information.

\*\* The interpretation file from Reflex has the file extension PCK and the file from RadExplorer has the file extension TXT.

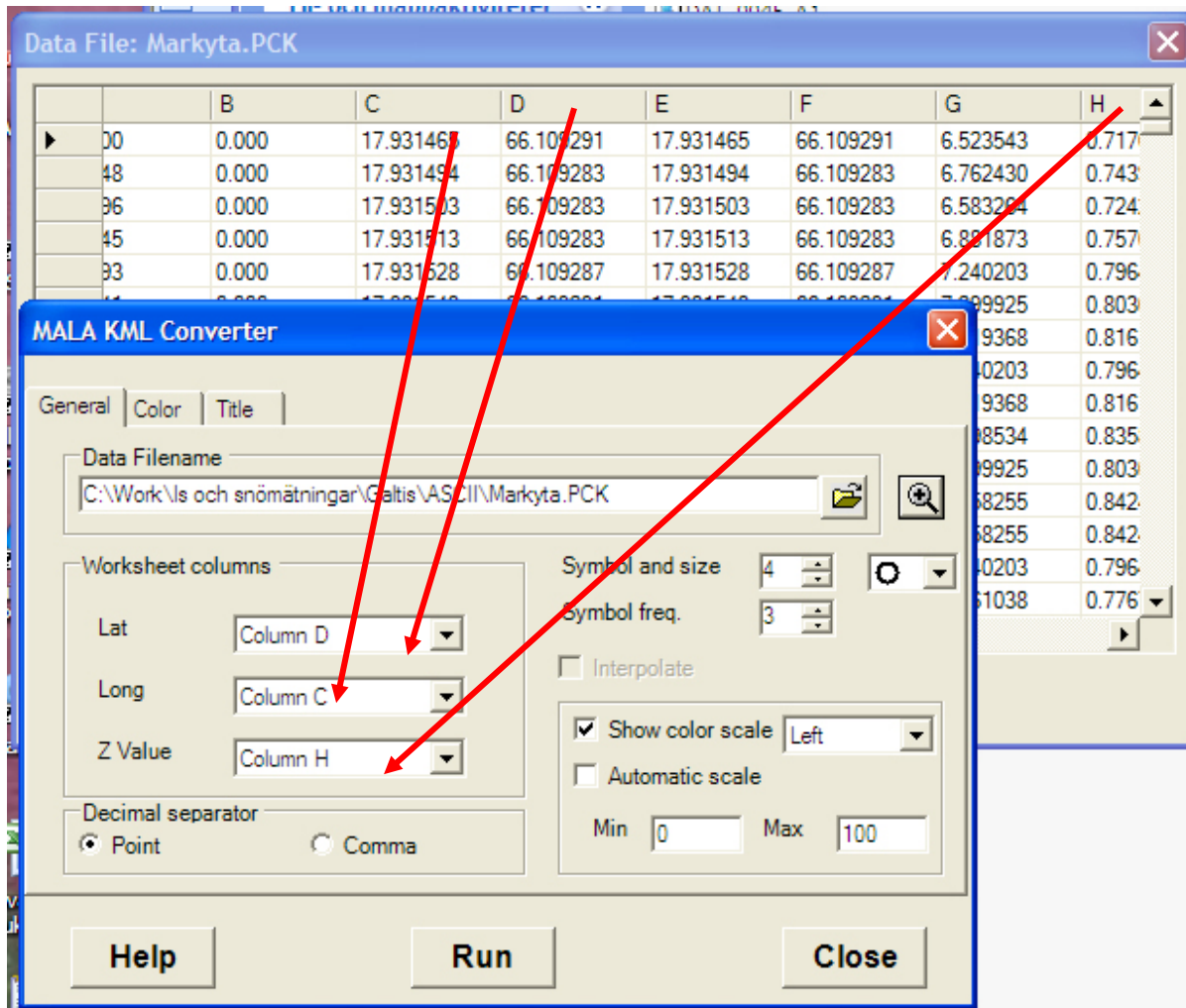
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In the above example the columns D and C corresponds to latitude and longitude, whereas column H corresponds to the interpreted depth to a radar reflector.

To display layer data the best result is to have a minimum of 10-20 different classes for the color settings. To change the color palettes, double click on each palette bar and select a color. After selections of 3-4 main colors press the interpolate button. If the automatic scale is active in the *General* folder the software reads the minimum and maximum value for the data column (Z Value). It is recommended to use square or circle as symbols. Finally, go to the *Title* tab and specify header information etc. before pressing the RUN button and specifying the name of the KMZ file. The file is created in the working directory, also containing your input data file.

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## PRESENTING RESULTS IN GOOGLE EARTH

To present a KMZ file, simply double-click on the file. This causes Google Earth to start and automatically open the KMZ file. Google Earth will zoom into the spot on the globe where the data was collected.

## MALÅ GPS MAPPER CONVERTER MALFUNCTIONS AND TIPS:

- The software always stores the last settings.
- Problem to open text files can be related to the decimal separator, change the type of separator in the general folder and try again.
- If you still can't read a text file, remove any header text in the beginning of the file, and check that the columns are intact in the complete file. Use e.g. Notepad to edit the file.
- Check the ".NET Framework" installed on your computer. Make sure you have the latest version installed. If not install from the delivered CD or download from [www.microsoft.com](http://www.microsoft.com).

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