

Tutorial 19: Exporting from the Database

You may wish to export your search results so that you can visualise or conduct analyses of your results in other programs, such as in a spreadsheet or GIS software.

In this tutorial we will learn how to export search results from the database into a .csv or shapefile format, and how to make some adjustments to the exported files to make them easier to work with.

1 Getting Started

Use the simple or advanced search to filter search results to your specifications.

- Refer to Tutorial 1, Tutorial 1b, and Tutorial 17 for more detailed instructions on searching.

2 Exporting your Search Results

When you have filtered your results to your specifications, click on the Export icon in the upper right corner of the Search page (Figure 1).

- The instructions in this tutorial will work for any type of record (Resource Model).
- However, it is only possible to export one type of record (Resource Model) at a time, for example ONLY Heritage Places or ONLY Information Resources.
- If your search results contain multiple record types, you should use the 'Resource Type' dropdown below the search bar to filter your records by Resource Type and do separate downloads for each type, e.g. one download for Heritage Places and then a separate download for Information Resources.

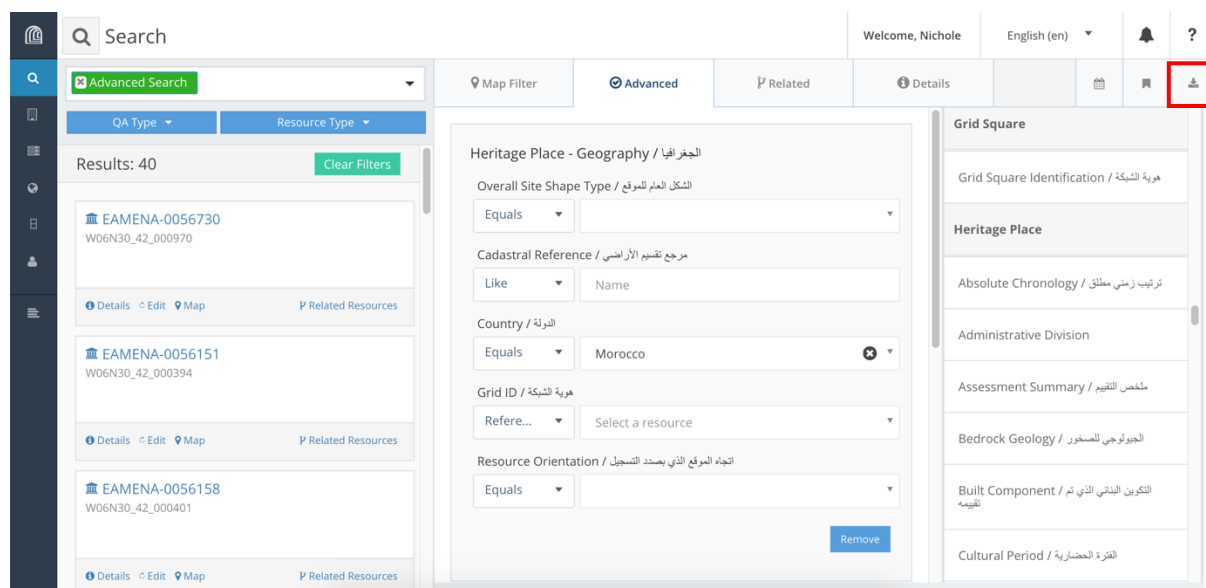


Figure 1

This will open the export window (Figure 2).

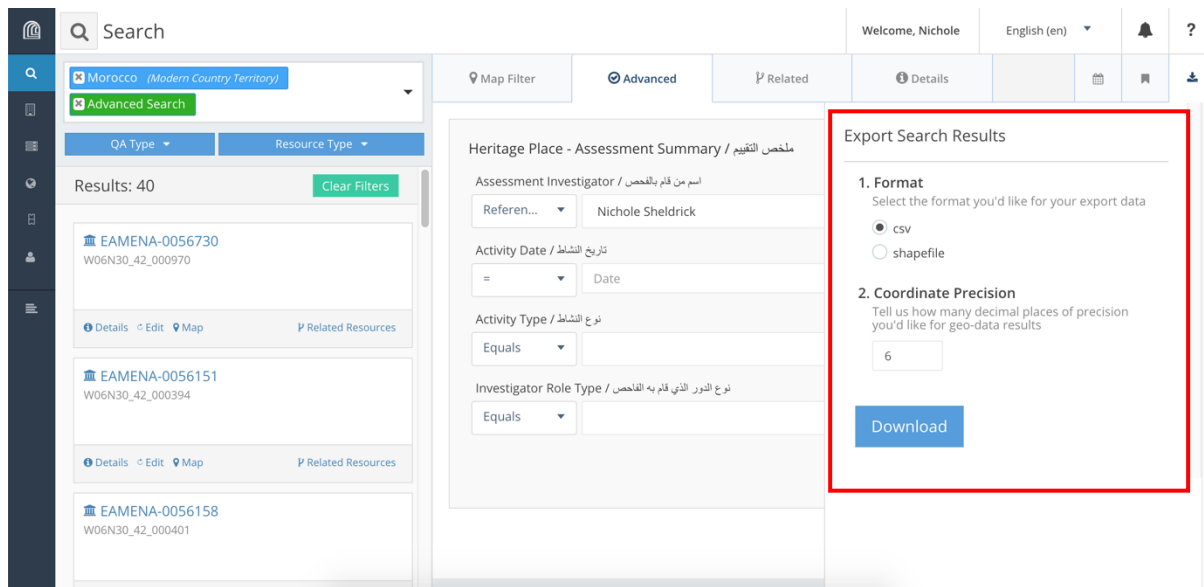


Figure 2

- Choose which format you would like your results to be exported as – csv or shapefile.
- Specify how many decimal places you would like geographical co-ordinates to be precise to.
 - The default is six places. This should normally be fine to leave as it is and will provide accuracy below 1 m.

Click Download.

- Rename your file to something memorable and save it to your computer in your chosen location using the window that opens.
- The file will be saved as a .zip file.
- Use unarchiving software (e.g. 7zip) to unzip the file and access the .csv or shapefile.

3 Working with a CSV export

You can open and view the information in your .csv file with spreadsheet software such as Microsoft Excel, OpenOffice Calc, or by uploading it online into Google Sheets.

When you open the document, you will see that the columns (i.e. that database fields) are in a random order. If you want to change the order of the columns you have two options:

1. Rearrange the columns manually to an order than makes sense to you.
2. Use one of our pre-set documents to change the order of the columns to something that more closely resembles their order in the database.
 - a. Please note that the pre-set documents referred to in below ONLY work for Heritage Place exports.
 - b. Separate documents will be produced for different types of resources. When they are available, they will work the same way as the instructions below.

To follow the second method, you must use either Microsoft Excel or Google Sheets. We are currently working on making this available in OpenOffice Calc, but this is still in development.

3.1 Microsoft Excel method

Download the 'EAMENA Reorganise Export Columns.xlsm' file from the training website and save it to your computer.

- Open the file, and when you see a message or warning about macros, click 'Enable content' or 'Enable macros' (Figure 3).

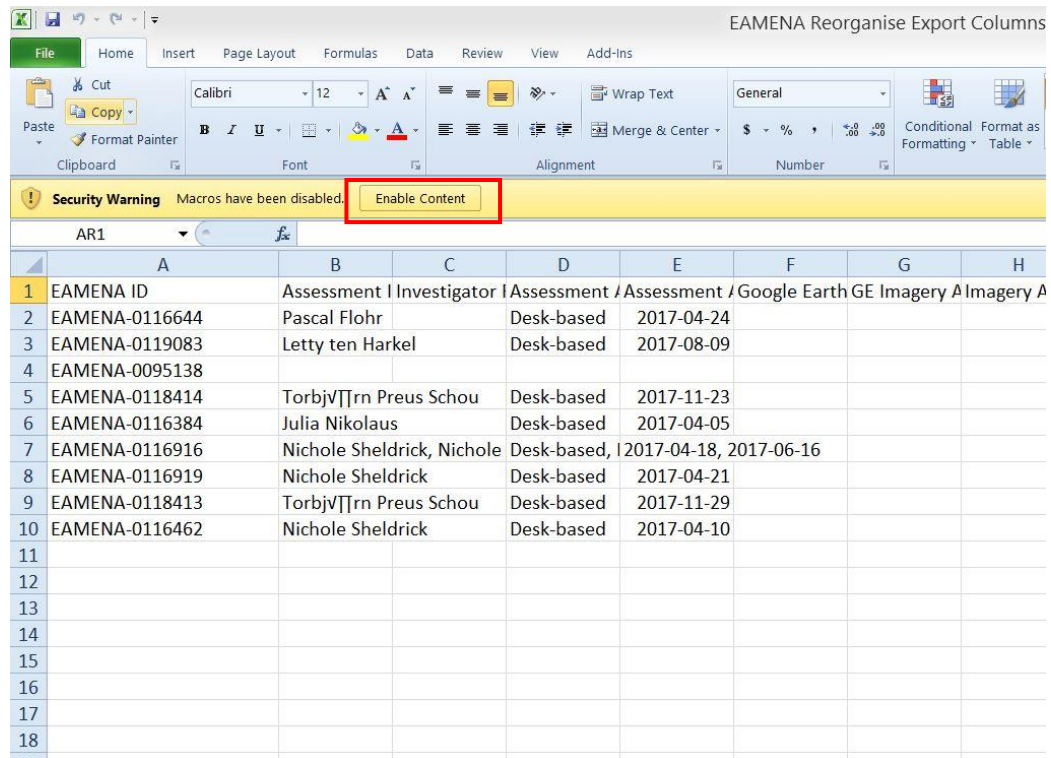


Figure 3

- Open your .csv export file in Microsoft Excel.
- In your .csv file, right click on the sheet with the data in it and choose 'Move or Copy' (Figure 4).

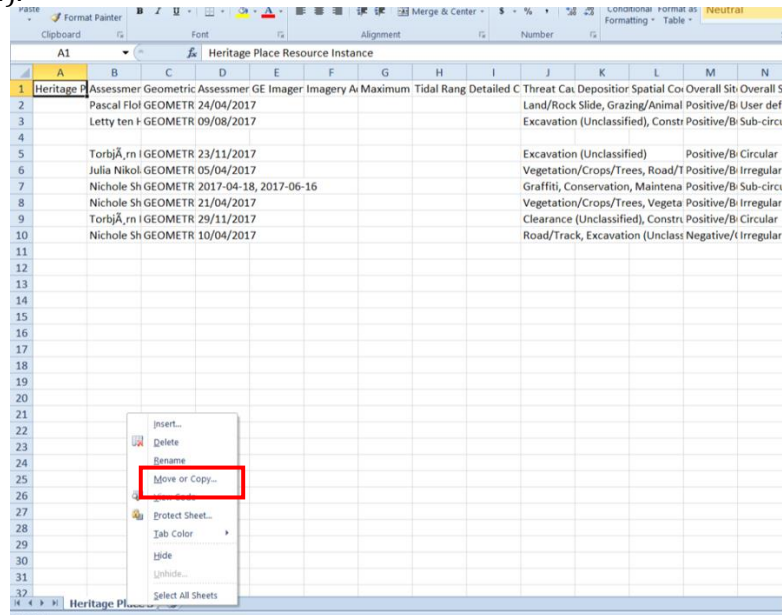


Figure 4

- Change the dropdown under 'To book:' to the 'EAMENA Reorganise Export Columns.xlsm'.
- Make sure 'Create a copy' is ticked.
- Click 'Ok' (Figure 5).

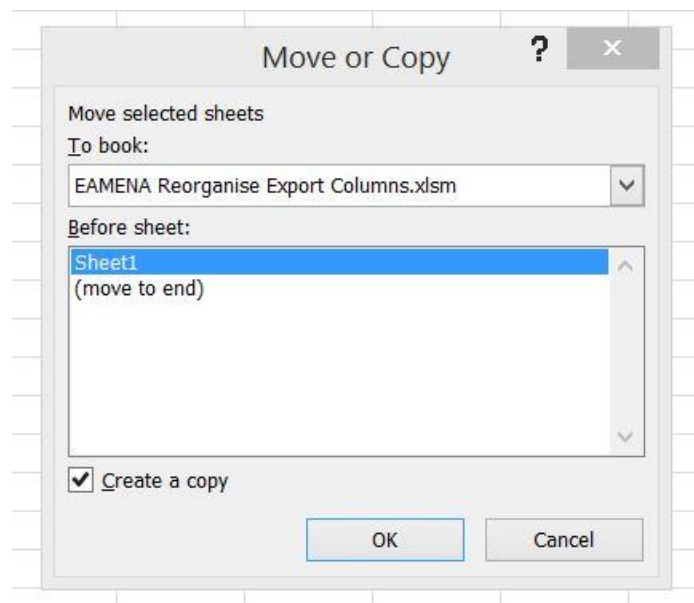


Figure 5

- This will create a copy of the sheet in the Reorganising document (Figure 6).
 - You can delete Sheet1, but this is optional.

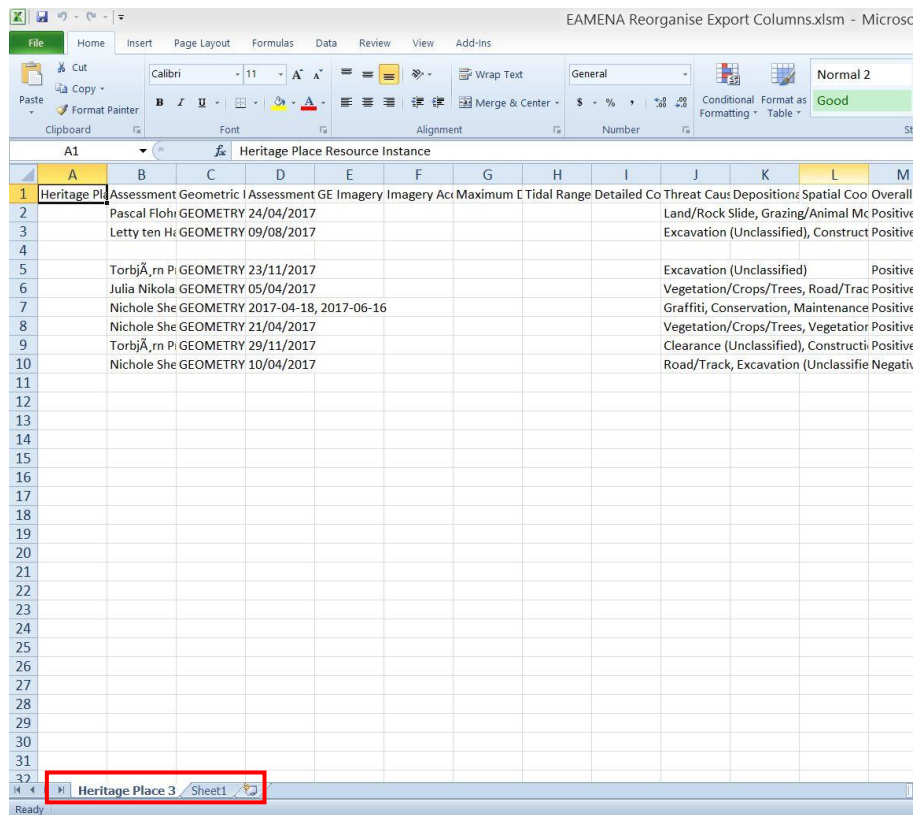


Figure 6

- Go to the 'View' Tab and click on 'Macros' (Figure 7).

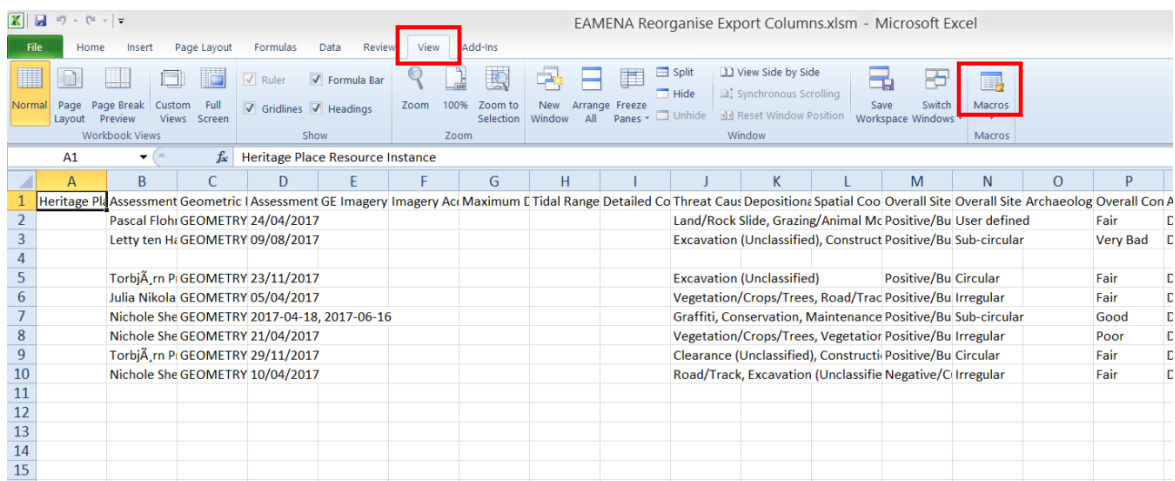


Figure 7

- In the window that appears, click on the Macro called 'moveColumns' and then click 'Run' (Figure 8).

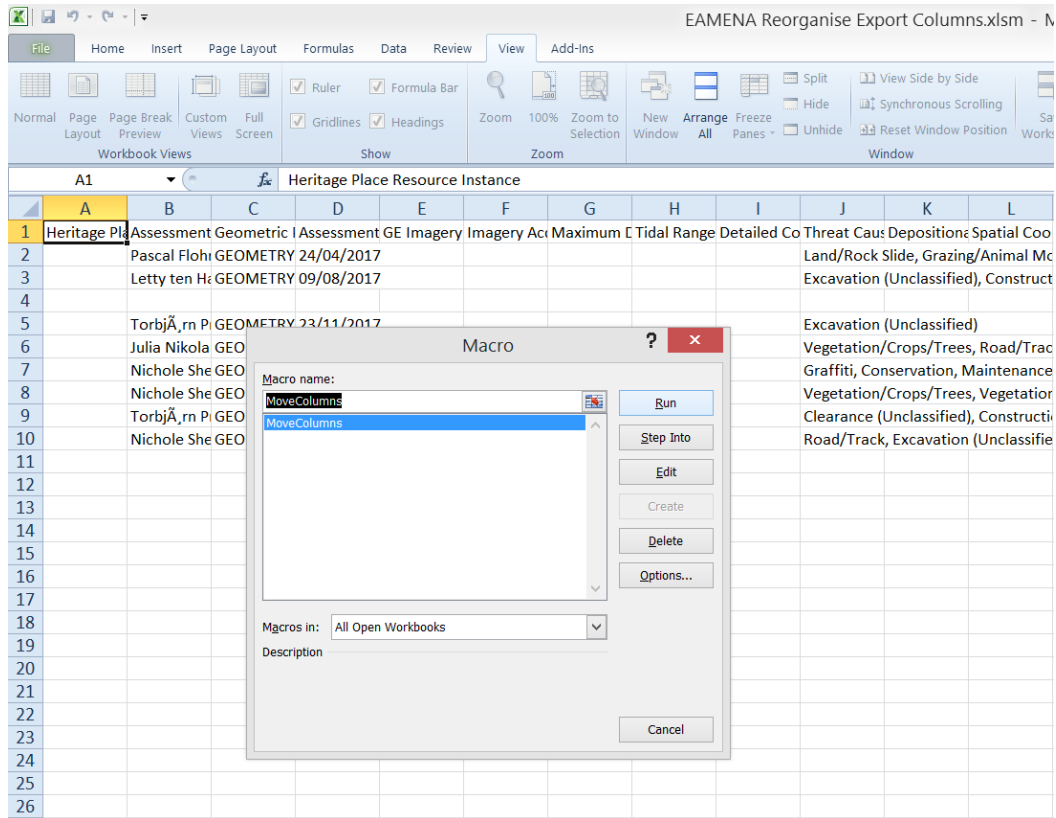


Figure 8

- In the next window that appears, enter the name of the sheet that you copied from the csv and that you want to be reorganised, and then click OK (Figure 9)

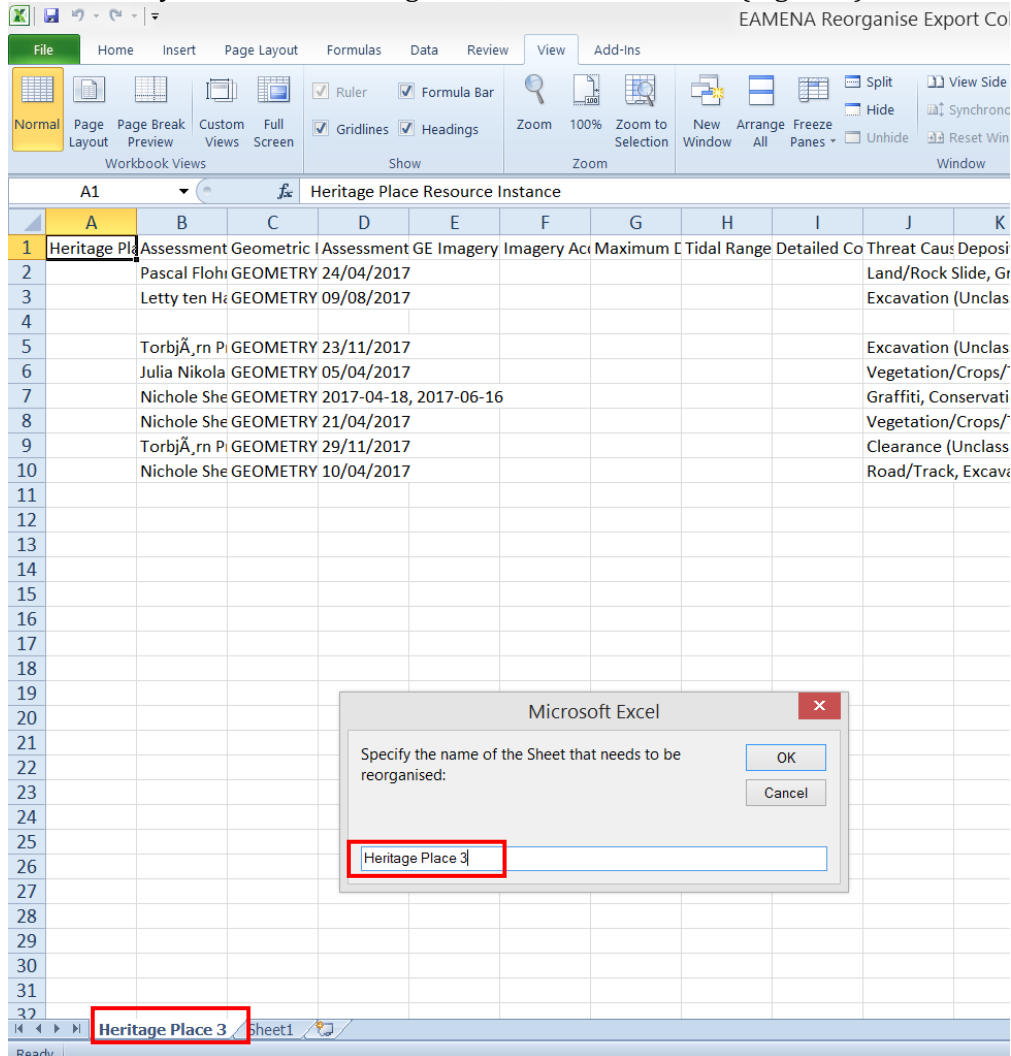


Figure 9

- A new tab will be created called 'Final Report' which will contain the same data but with the columns rearranged.

3.2 Google Sheets method

Open your .csv export file in a spreadsheet application such as Microsoft Excel or OpenOffice Calc on your computer.

Open the Google Sheets Column Reorganiser in an internet browser at (Figure 10):

<https://docs.google.com/spreadsheets/d/1CMaWxaHPgZvvJ5SDh1BQV6hiBYrtR4Vvd7b0Ad4goCo/edit?usp=sharing>

Heritage Place	Assessment Inv	Geometric Plac	Assessment Ac	GE Imagery Acc	Imagery Acquis	Maximum Depi	Tidal Range	Detailed Condit	Threat Cause T	Depositional Pr	Spatial Coordin	Overall Site M
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Figure 10

When you have opened the document, there should be one tab called 'Original' and there may already be data in the spreadsheet as in Figure 10.

- Click on 'File > Make a Copy' and make a copy of this document and save it in your own Google Drive.

In your new version of the document, if there are any additional tabs, you should delete them first.

- Go to your original .csv export document and select and copy the data that you want to rearrange.
- Paste it into the 'Original' tab of the EAMENA_Export_Column_Reorganiser document in your browser.

- Click on “Tools > Macros > moveColumns” (Figure 11).

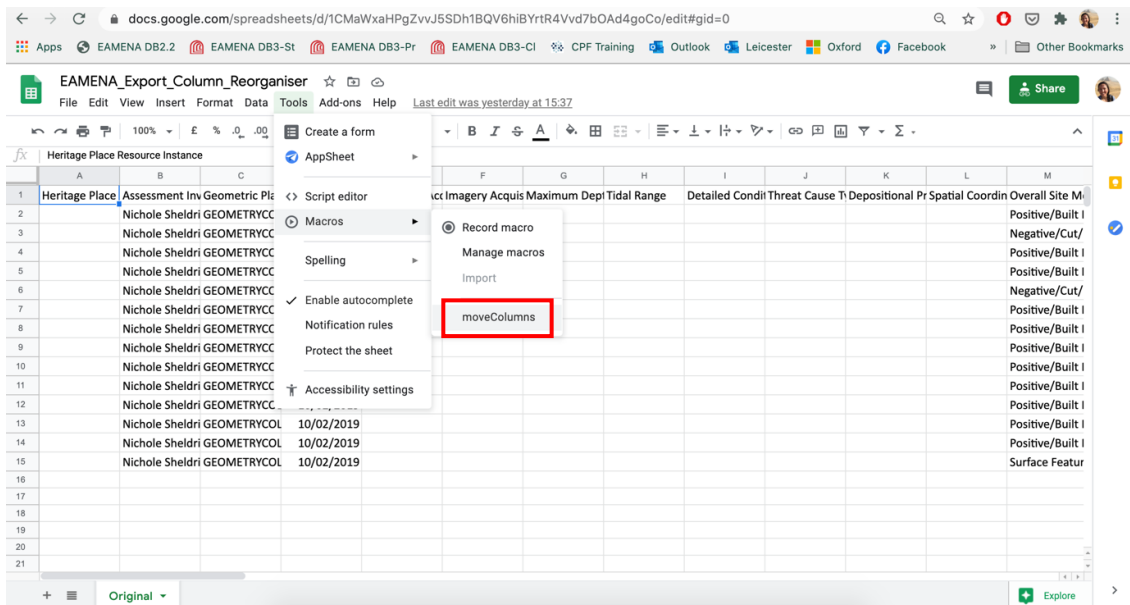


Figure 11

- The first time you do this, it will ask for your permission to authorise the macro
- Click Continue (Figure 12).

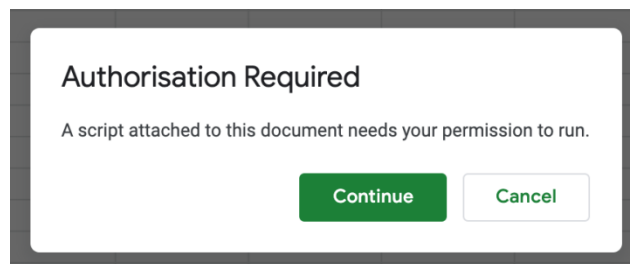


Figure 12

- Click on your Google account (Figure 13).

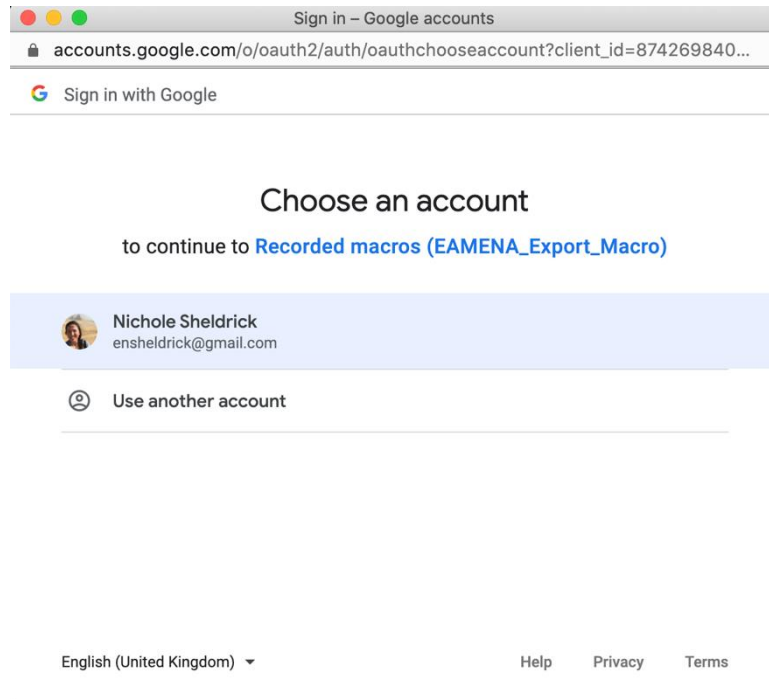


Figure 13

- Then click 'Allow' (Figure 14).

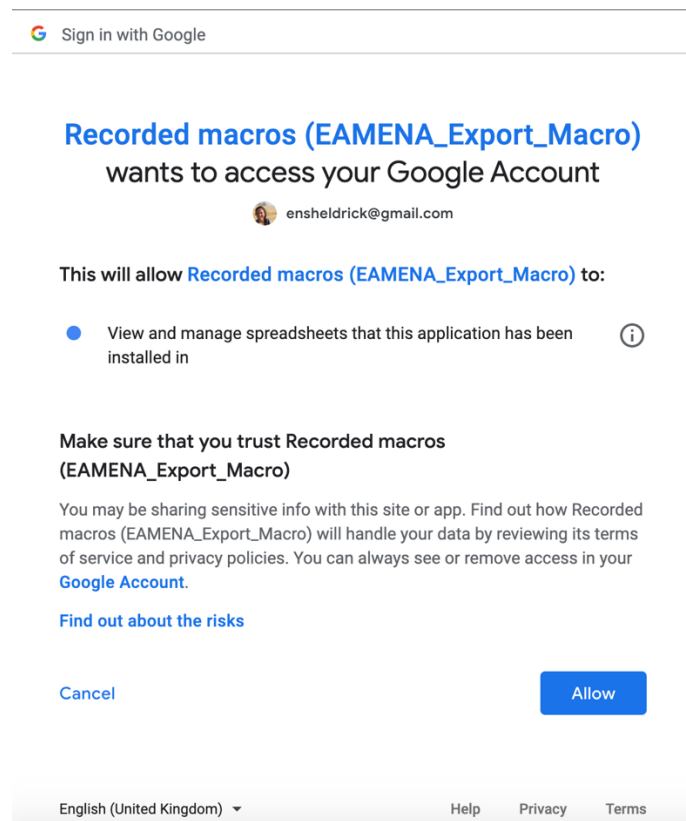


Figure 14

- Click on 'Tools > Macros > moveColumns' again to run the macro.
- A new tab will be created called 'Rearranged' which will contain the same data but with the columns rearranged.

You can then work with the data in Google Sheets, or export it to another program, such as Microsoft Excel or OpenOffice Calc.

4 Working with a shapefile export

Your shapefile can be used in GIS software such as QGIS or imported directly into Google Earth.

- Refer to GIS Tutorials 1, 2, and 3, for more detailed instruction on working with shapefiles in QGIS.

To import a shapefile into Google Earth Pro:

- In the menu, click on 'File > Import'
- Navigate to the shapefile where you have saved it on your computer.
 - You may have to change the 'File Type' to 'ESRI Shape (*.shp)' (Figure 15).

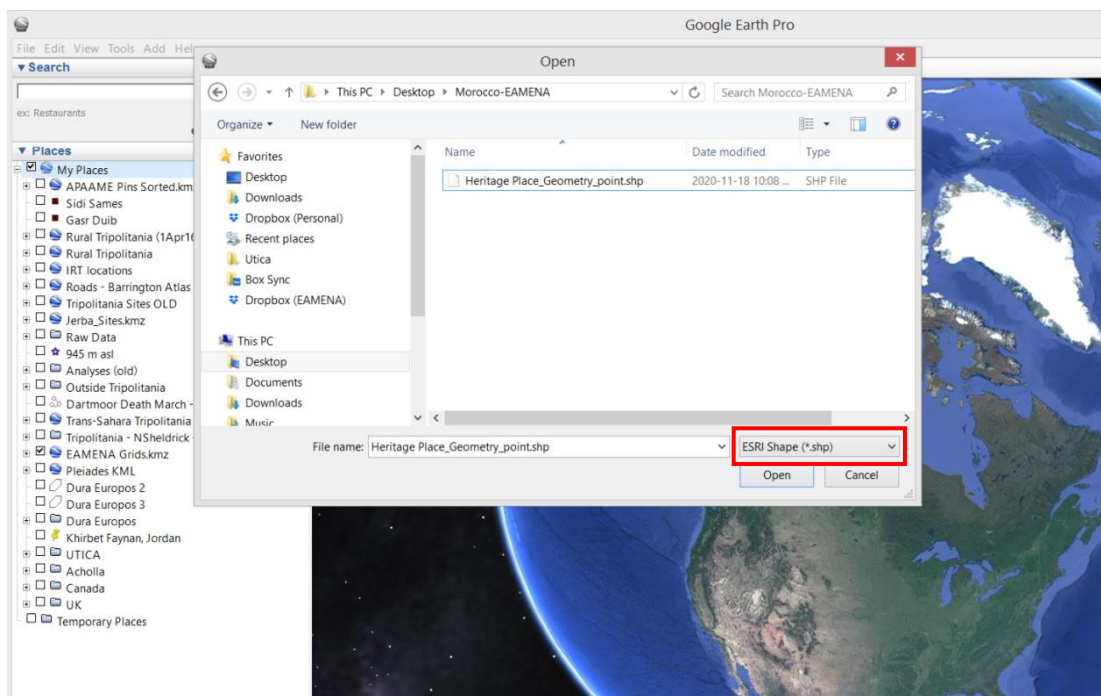


Figure 15

- Click on the file in the folder with the .shp file extension and click 'Open'.
- A window will pop up to ask you "Do you want to apply a style template to the features you ingested?"
 - Click 'Yes'.
- Choose 'Create a new template' and click 'Ok' (Figure 16)

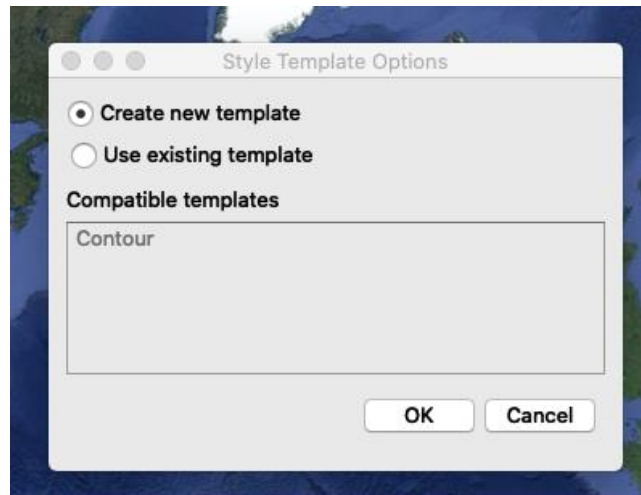


Figure 16

- In the Name tab that opens first, choose the field from the dropdown that has the terms that you want the sites to be labelled as.
 - We recommend using the 'EAMENA_ID' or 'SiteName' fields (Figure 17).

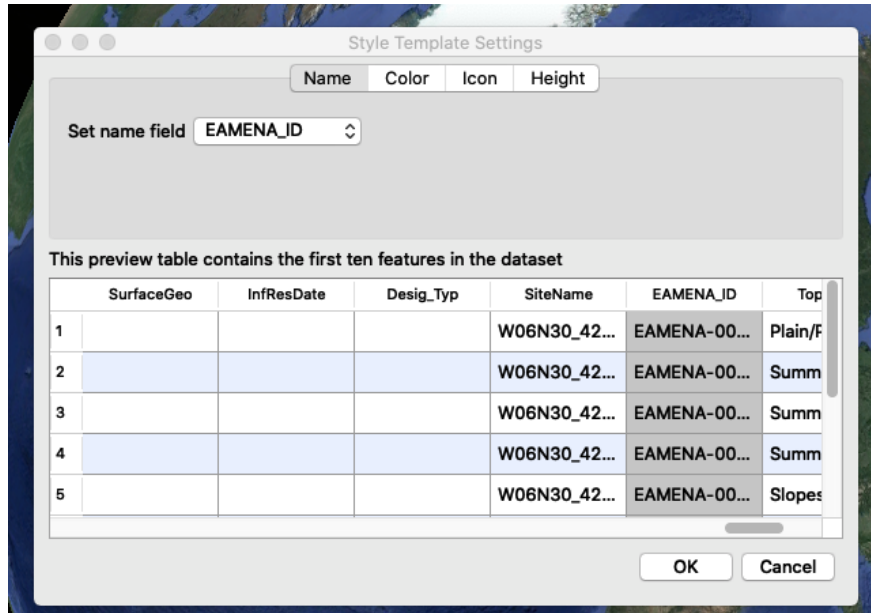


Figure 17

- Click on the 'Color' Tab and choose from the three options.
 - 'Use single color' will apply the same colour for all of the pins that are created.
 - Click on the colour box beside it open the colour wheel and choose your colour (Figure 18).

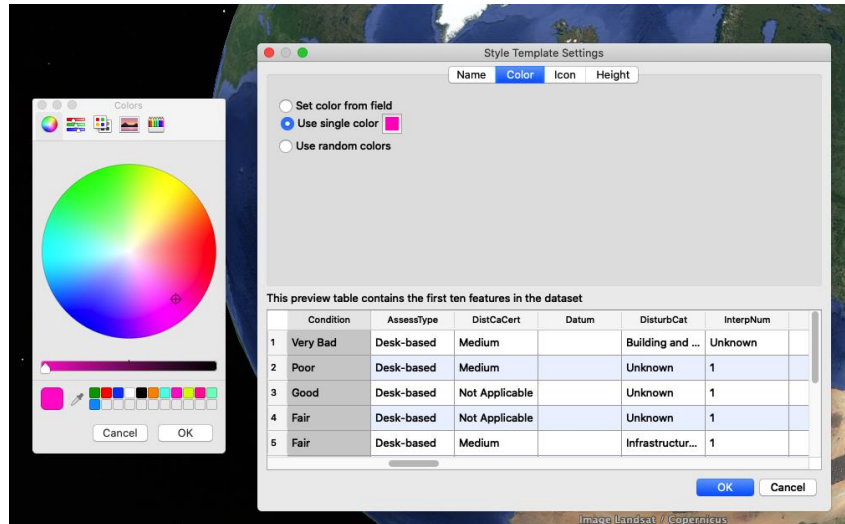


Figure 18

- 'Use random colors' will apply a random colour to every pin that is created.
- 'Set color from field' allows you to choose a field and set a colour for each of the terms that are present in that field.
 - Choose the field you want to sort by in the 'Select color field' dropdown.
 - You will see a list of the terms and the number of records that have that term in the 'Bucket options' window below.
 - Set the 'Palette start color' and 'end color' to create a palette of colours you want to choose from.
 - Change the colour applied to each individual term in the 'Bucket options' window.
 - Click the option to 'create sub-folders for each bucket' if you want your pins to be sorted into folders based on this criteria and specify the folder names (Figure 19).



Figure 19

- Click on the 'Icon Tab' to select the type of icon you want to use for each of your pins.
 - 'Use same icon for all features' will apply the same icon to each pin, with the colours you specified in the 'Color' tab.
 - 'Set icon from field' will allow you to choose a field and set a different icon for each unique term that appears in the field.
 - Use the same instructions as in 'Color' tab to set different icons.
- Click on the 'Height' Tab to change the height that the pins are set at.
 - 'Clamp features to ground' is the normal default.
 - 'Set height from field' will allow you to set a different height based on each unique term that appears in the field.
 - Use the same instructions as in 'Color' tab to set different heights.

When you have set your parameters, click 'Ok'.

- Save the 'Style Template' in the window that opens.
- Click 'Save'.
- Your pins will appear in your 'Temporary Places' folder.
- Move it to the 'My Places' folder to ensure it is saved.

- Your pins will appear with the settings you have specified, divided into folders if you have indicated this, and each record will all of the information contained in the attribute table of the shapefile (Figure 20).

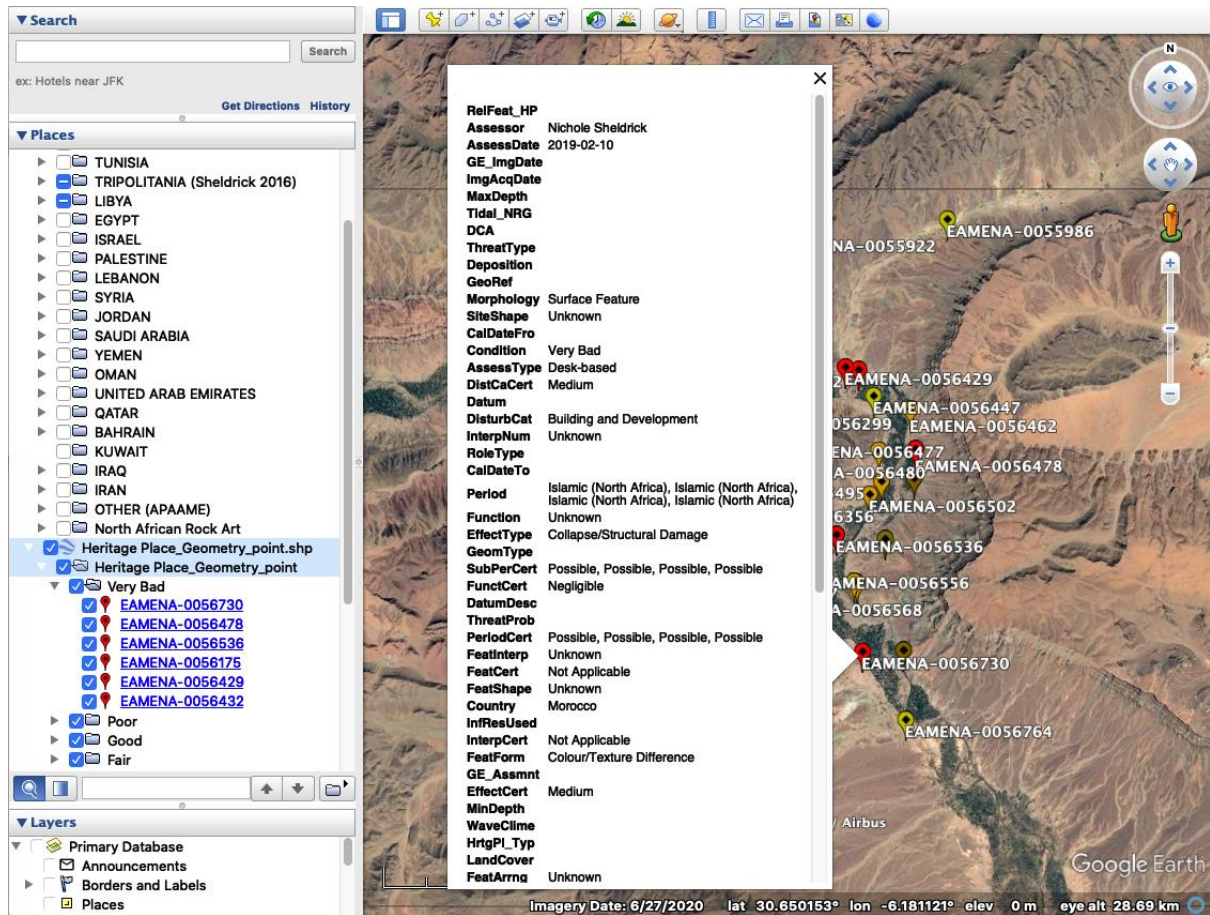


Figure 20

Refer also to GIS Tutorial 6, Section 2.2 for another example of importing a shapefile into Google Earth.

5 Working with exported data

There are a few important things to remember when working with exported data in spreadsheet format or in a shapefile.

- The information contained in each individual record is only a list of all the terms that have been identified in that record in each field.
- Many of the relationships between individual terms within a record may have been lost.
- It is not possible to be certain, for example, which Cultural Period belongs with which Cultural Sub-Period, without checking in the database.
- Therefore, it is possible to do analyses which measure whether a term is present or absent in a record, but not to do analyses which rely on any of these relationships being correct.
- A way to improve the quality of the exported data is currently in development.

If you want to do complex data searches, we recommend that you do this in the database itself, using the Advanced Search Function, and do not do them using exported data.