



# Practitioner's Guide:

## Merging MS Excel Tables and Charts into ArcView



An example from a country in  
Northern Africa



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#### Example:



The development of a population atlas for a larger district was a considerable achievement, given the data restrictions that the project faced. Not only was it a difficult to acquire reliable population baseline data but it was also a challenge to project the data. Rather than trying to use a complicated relational database programme, the planning team in the district opted to use a spreadsheet programme (e.g. MS Excel). One of the main reasons for the choice was the fact that the technical staff were largely familiar with using spreadsheet programmes and the additional training needed to use it in combination with the GIS programme was limited. The following main steps were undertaken by the planning team:

1. Prior to commencing the actual data entry into the spreadsheet the planning team needed to define and agree upon which data should be entered into the spreadsheet and which data should be excluded.
2. Defining the names of the "fields" to be used was an important first step. The reason for this is that the GIS programme used (i.e. ArcView) requires a logical link to the data contained in the spreadsheet.
3. The 1986 and 1996 population data of the district was entered into the spreadsheet.
4. The data was then stored as a DVF file and transferred to the GIS ArcView programme
5. The database was linked with the information contained in ArcView. The information was linked by corresponding the map features in the GIS using a unique ID-field to match corresponding datasets.
6. The database in the spreadsheet was also stored in MS Excel file format for use in ArcView. This is necessary when producing illustrations that have to be embedded into the ArcView map layout.

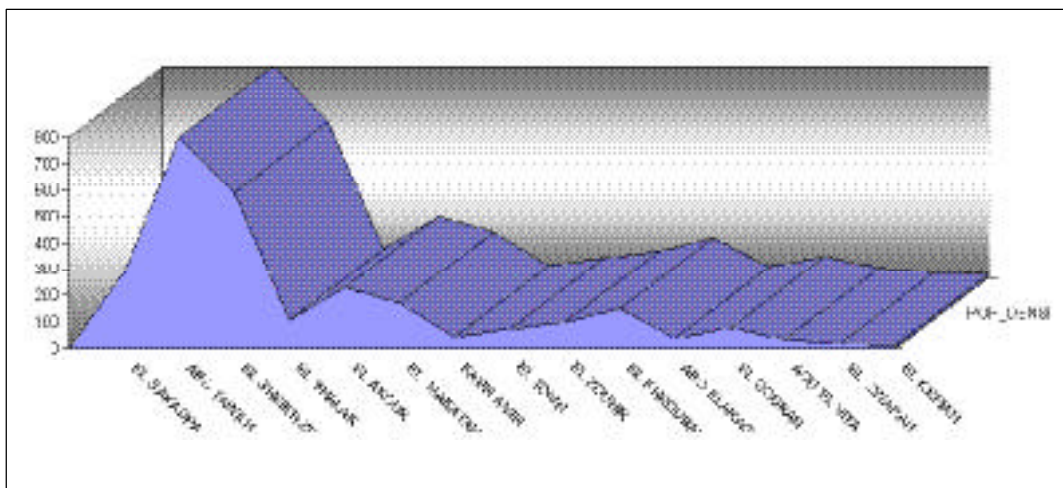


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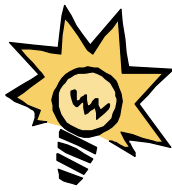
Many spreadsheet programmes offer powerful presentation features that by far exceed those provided by the GIS programmes. MS Excel has many useful presentation features that were used by the planning team in the district. The following graphical examples highlight the differences when illustrating data using either a spreadsheet programme such as MS-Excel or a geographical information system such as ArcView.

Figure 1: Population Density Diagram created with MS Excel





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Although MS-Excel has many outstanding graphical features the data cannot be integrated into a spatial map. In order to be able to do this the data has to be linked to a GIS programme (e.g. ArcView). An impressive array of maps can be produced when combining the two programmes. In the following examples each of the programmes illustrates how the planning team used information contained in ArcView and matched this without data and graphics contained in MS-Excel. A further advantage of the procedure was that the illustrations and maps could be printed in other language s through the use of supporting software. The combination of MS Excel, ArcView and other supporting software provided the necessary functionality.

Figure 2: Population Density Chart created with ArcView

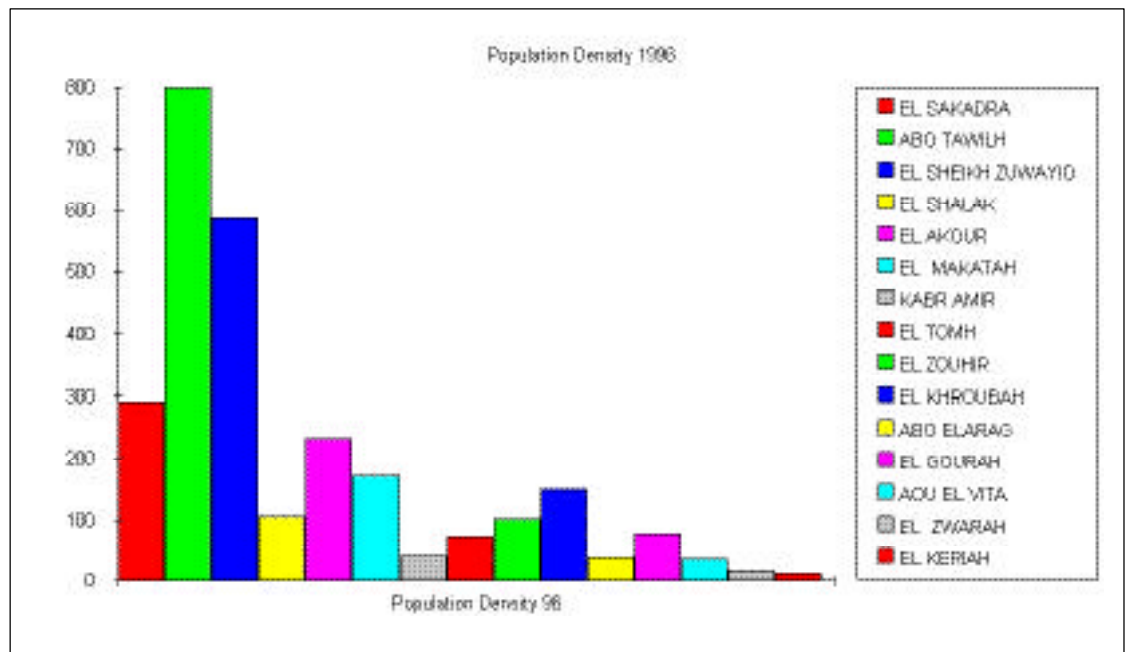
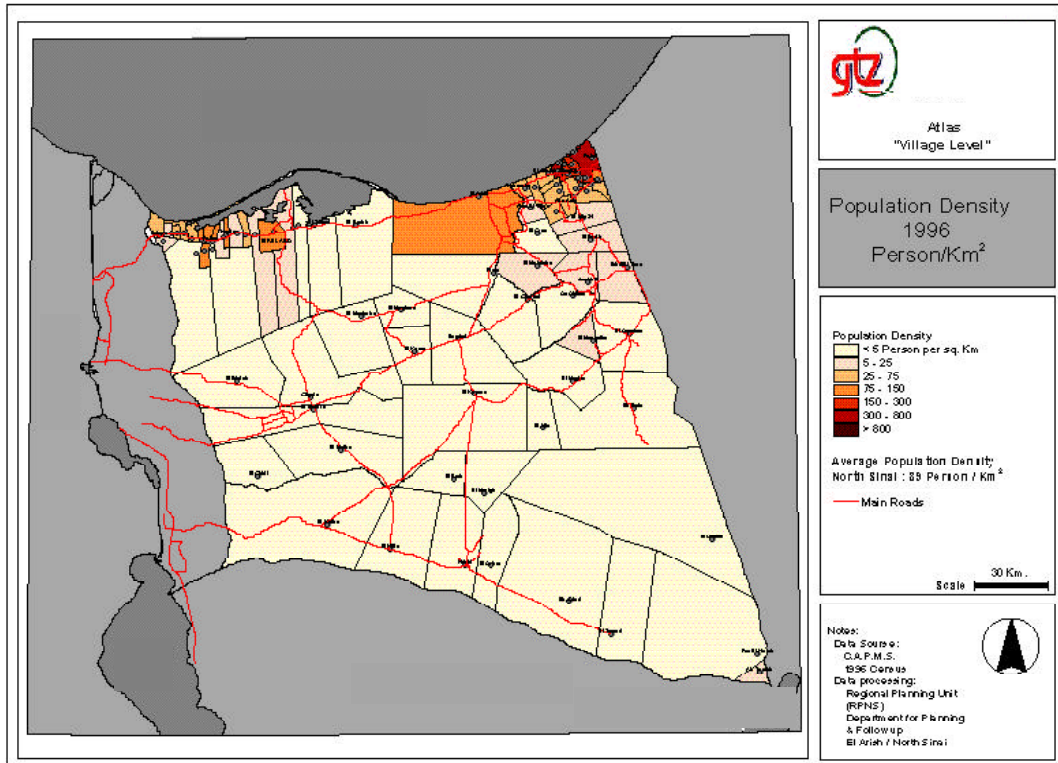


Figure 1 on page 1 shows clearly how illustrations from Excel can be used in combination with ArcView. Furthermore, there is an additional advantage of printing ArcView illustrations in other languages using supporting software. Figures 4 and 5 show further examples of an application of this method.

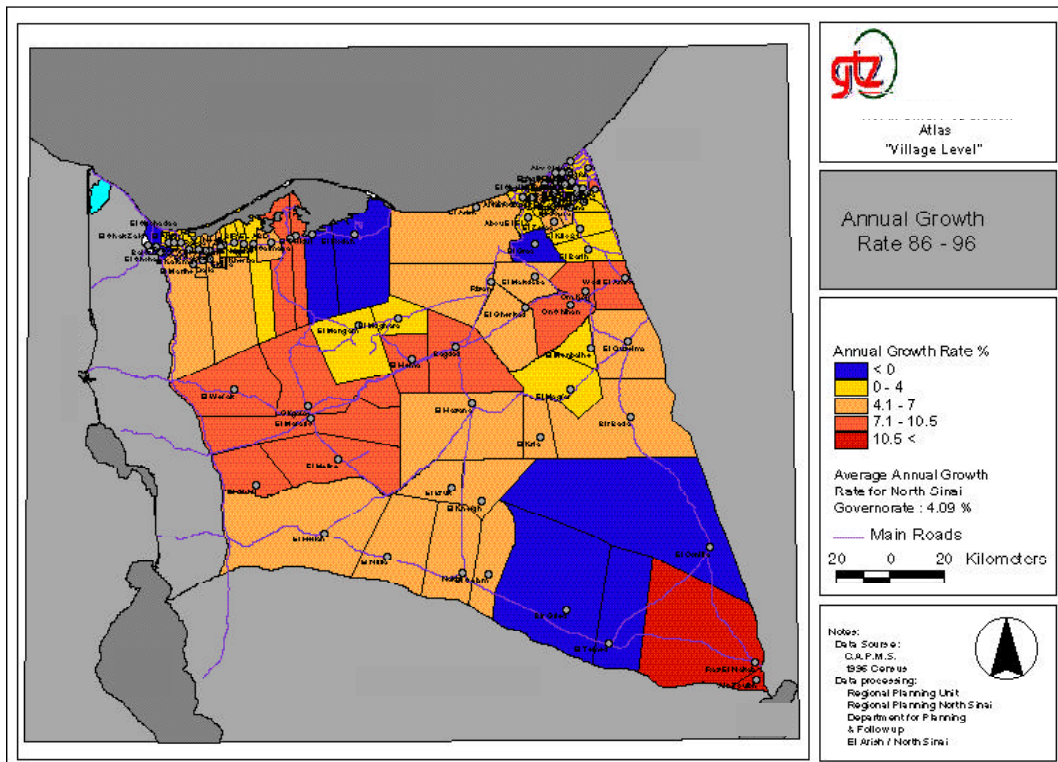


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Map 1: Population Density of the region



Map 2: Annual Population Growth of the region





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Map 3: Migration Rates of the region

