IMMI – ArcGis

![Wölfel logo]

The Idea

Available digitized and edited data are valuable resources. However, the exchange and further use of data is often diffi cult because it comes in different formats (DBF, DXF, ASCII, etc.). For that reason, valua- ble resources remain unused or must be re-edited or acquired. The ArcGIS import fi lter is a data inter- face which provides a powerful tool for exchanging geo-referenced data between different programs.

The ArcGIS import fi lter enables the user to process and rework existing data sets that were initially pro- duced with a specifi c application in mind (such as land-use planning, urbanism, etc.) to make them fit for either noise mapping or air pollution mapping. The process also works vice versa: export an IMMI noise or air-pollution project to integrate the data into an existing database. The advanced bi-directional data-exchange facilities of IMMI provide extensive savings potentials if available geo-referenced data (geometry and alphanumerical data) can be used and re-used. And better yet:

All calculation results can also be exported from IMMI to ArcGIS:

- IMMI elements with all attributes as point-, line- and aera-layers

- Import and export of *.prj-fi les for easy geo-referencing

- Noise maps as point layers, isolines (.fl t; .asci; .shp) for all scenarios and rating periods

- Façade levels and reception point calculation as point layers (.shp) for all scenarios and rating periods

- Export of geo-referenced bitmaps

The Solution – Our ArcGIS import fi lter

Irrespective of your particular requirements, this powerful import fi lter enables you to read all types of data from ArcGIS: Import both geometry (x-, y-, z-coordinates) and various attributes (ADT, velocity, inhabitants, etc.). In ArcGIS all data are organized in so-called themes. The import fi lter enables the user to create a link between a given theme and a given element type in IMMI. The import fi lter makes sure that the geometry data (x, y, z) from the SHAPE fi le (*.SHP) are properly imported in the corresponding data structure in IMMI.
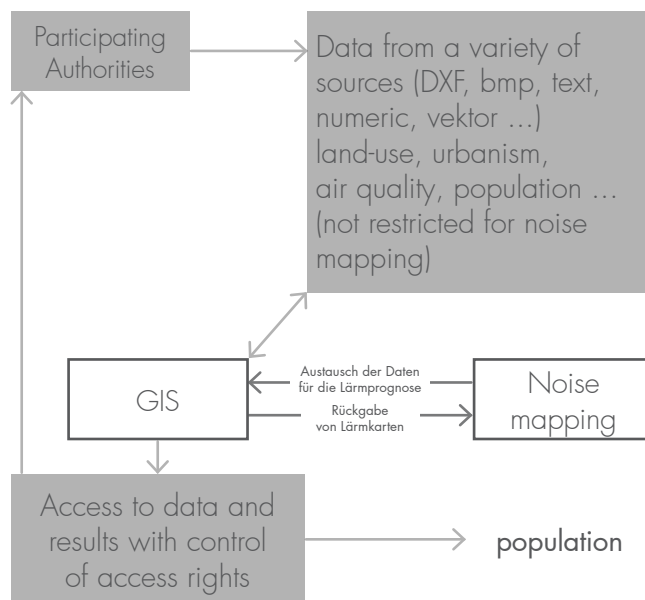

![IMMI logo]
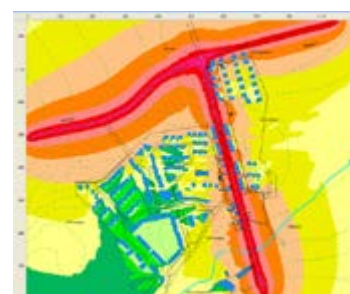
Simultaneously, attributes from the accompanying Base file (*.DBF) are properly assigned to the individual elements. The link between attributes and geometry is stored in the ArcGIS index file (*.SHX).

How it works ...

The geometry is automatically imported and stored if the both units and coordinate systems are normalised. Attributes will be assigned by the user individually per theme (ArcGIS) or element type (IMMI). Filters can be tailor-made by means of userdefined settings, useful fi lters can be stored for further use. In addition to the export of geo-referenced project data, IMMI also provides means to export calculated results.
IMMI noise grids can be output in various formats (ASCII, FLT, SHP, etc.). Geo-referenced background images are fi tted automatically. A detailed manual for further reference on the import and export of data is available.

Participating Authorities → Data from a variety of sources (DXF, bmp, text, numeric, vektor …) land-use, urbanism, air quality, population … (not restricted for noise mapping)

GIS — Austausch der Daten für die Lärmprognose — Noise mapping
Rückgabe von Lärmkarten

Access to data and results with control of access rights → population

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