

WAsP Utility Programs

The WAsP Utility Programs package has been discontinued with the release of WAsP 10. The functionality will be included in WAsP, the Map Editor and the Climate Analyst. The WAsP Utility Programs is a collection of Windows(2000/XP) programs to calculate, analyze, convert, transform, translate, plot and print WAsP-related data. A brief description of each utility program is given below. Most of the programs use the Windows Command Prompt Interface rather than a standard graphical user interface. Click [here](#) for a brief description of the interfaces used.

Wind-climatological fingerprint

As in the European Wind Atlas. Fingerprint page with graphs (*.ps or *.plt file) and X-tables (*.txt or *.tex) of daily/yearly and monthly/yearly mean wind speeds.

Fitting Weibull distribution functions

Generates measured and fitted data (*.dat) for e.g. plotting the total and sector-wise wind speed distributions. Summary table (*.txt or *.tex) in two different layouts.

Plotting the histogram and wind rose

Generates data and Grapher files for plotting the wind speed and direction distributions. Data can be used with other plotting programs as well.

Weibull distribution characteristics

Statistics and data files (on screen and *.dat) for a given Weibull distribution (A and k parameters). Total power density and window (e.g. 0-25 ms-1) power density. Power production from specified power curve. Data file suitable for plotting.

Coordinate transformation

Coordinate transformation (ED50 and WGS84) of single points, lists of points and WAsP ASCII *.map files:

- Latitude/longitude to UTM
- UTM to latitude/longitude
- UTM to UTM (zone 32 and 33 only)
- Un-scaling a WAsP ASCII map file to absolute coordinates
- Conversion of WAsP *.map file to *.bln and *.xyz files as well

Conversion of vector map formats

- AutoCAD *.dxf to WAsP *.map file (ASCII *.dxf-file subset only)
- Atlas *.bna to WAsP *.map file (Didger *.bna file)
- MapGen *.dat to WAsP *.map file (Coastline Extractor *.dat file)

Transformation of map and grid files

- Map to grid transformation: WAsP *.map file to Surfer *.grd file
- Grid to map transformation: Surfer *.grd file to WAsP *.map file

Ruggedness index

Calculates the ruggedness index (RIX value) for a single site or for multiple sites given in an RSF-file. Input is a WAsP map file. Results for site overall and for each sector. This functionality has now been implemented in WAsP as well.

Interpolation of wind atlas data sets

Generation of an 'artificial' WAsP wind atlas data set (*.lib file) by spatial interpolation between three other stations/*.lib-files. Standard Windows GUI running on 2000/XP.

Plotting the power- and thrust-curves

Generates data and Grapher files for plotting the power-and thrust-curves. Data can be used with other plotting programs as well.

Resource- to grid-file conversion

Calculation of Surfer grid files containing Weibull A , Weibull k , mean wind speed, mean power density, terrain elevation, or power production. Grid may contain absolute or normalised values. Export to (x, y, z) file as well.

Air density calculator

Calculation of air density from the elevation/altitude and mean air temperature at the site.

Printing wind atlas files

Generates text or LaTeX file, resembling the right-hand-side pages of the European Wind Atlas, from a WASP *.lib file.

PostScript BoundingBox

Finding the BoundingBox of encapsulated PostScript files (*.eps), e.g. Grapher and Surfer for DOS output files.

Sample station description

Proposal for a comprehensive, yet compact, standard description of a wind-measuring station, based on the outputs from WASP and the Utility Programs.

Further information

More information can be obtained by [contacting](#) the WASP team at Risø DTU.