SOFTWARE
SOLUTIONS
ADMS 5

DISPERSION OF INDUSTRIAL RELEASES

Easy to use

Simple and rapid to use (Mapper display system, input data converters, import / export to .csv format, input data checking system, etc.).

Has links to display systems and GIS packages, i.e. Surfer®, MapInfo®, ArcGIS®.

A validated model with global recognition

Several studies have confirmed the value of ADMS: European "Model Validation Kit" tool, French RECORD study, etc.

Referenced in several methods guides and scientific publications: US-EPA, etc.

About 3,000 bodies equipped worldwide: industrials, design offices, monitoring & research organisations.

A tool adaptable to all kinds of release situations

- *Power plant*
- *Petrochemical site*
- *Petrochemical site, composting site*
- *Rendering site*
- *Coating plant*
- *Quarry...*

The ADMS system has been in use for over 20 years now and incorporates the latest technological and scientific advances in the field of atmospheric dispersion modelling.
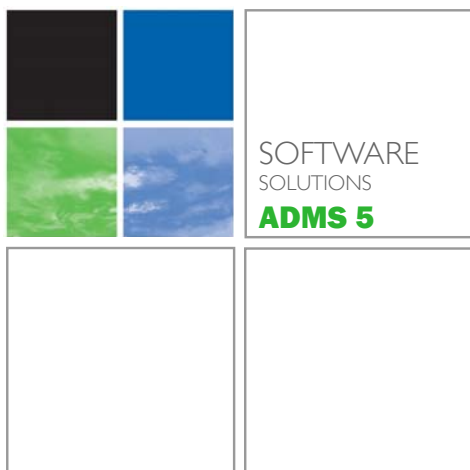
Packed with new features, ADMS 5.2 is the benchmark tool for assessing industrial risks and impacts.

ADMS 5, developed to study the impact of emissions by industrial sources

- Study of chronic plume dispersion and accidental releases at local scale.
- Study of the impact of one or more industrial facilities on air quality.
- Study of the dispersion of odours and radioactive elements.
- Provision of input data for your assessments of health risks for environmental impact studies.
- Decision-making support tool used during the project phase: support with dimensioning facilities, stack height, source locations, etc.
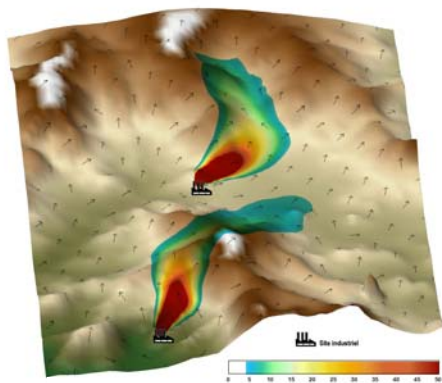
A comprehensive system able to model complex situations

- Factors in complex meteorological phenomena (calm wind, seashore, etc.).
- Models complex environments: hills, mixed land use patterns, coastal terrain, offshore platforms, snow-covered ground, etc.
- Effects of buildings and engineering structures on plume dispersion.
- Dispersion of gaseous and particulate pollutants.
- Various emission sources (chimney, leak, basin, raising, etc.).
- 3D dispersion calculations and customizable results (grid, receptor points, for different altitudes).
- Plume characterization: calculation of trajectories, effect of wind turbines in the proximity, thermodynamic parameters, evaluation of the condensed fraction, visibility, etc.

Technical features of the ADMS5 model
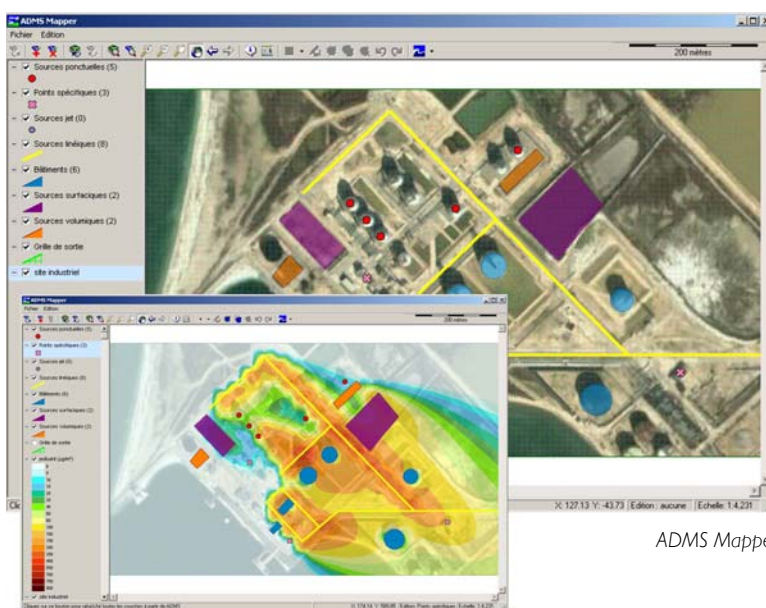
Meteorology

- Vertical and continuous representation of the atmospheric boundary layer (met. processor based on the similarity theory).
- Modelling of calm wind conditions.
- Use of statistical or hourly sequential meteorological data.
- Optional incorporation of vertical profiles.
- Modelling of the meteorological station environment.

Specific integrated models

- 3-D wind field predictions using the FLOWSTAR diagnostics model.
- Possibility to launch AERMOD from the interface.
- Integrated dry and wet deposition models.
- Plume rise from several ducts within a single stack.
- Photochemical model - NO, NO2, ozone.
- Fluctuations model for estimating short-term peaks (odours).
- Radioactive isotope decay model.
- Wet plume condensation model.
- Building model used to estimate the effects of obstacle wakes.
- Puff model (time-course puff development).

Extended modelling capabilities

- Until 10-year calculations of hourly frequency met. data.
- Simultaneous modelling of 300 sources and 30 pollutants.
- Up to 500 parameterable daily and monthly emission profiles.
- Definition of 25 buildings within the same interface.
- Up to 20 groups of sources (contribution calculations).

What NUMTECH offers you

- *Exclusive distributor of the software for France and French-speaking countries.*
- *Technical support and maintenance services available by email and phone 5 days a week.*
- *Training on the standard or advanced use.*
- *Support service for your more complex modelling cases.*
- *Provision of meteorological, topography and land use input data, directly in the ADMS format (dad@numtech.fr).*
- *Provision of our computing power.*

Influence of terrain on plume dispersion.

Recommended configuration

The ADMS model runs under Windows 7, 8 and 10.
RAM: 1 GB.
Available disk space: 10 GB.

ADMS Mapper

ADMS 5 is developed by CERC, Cambridge Environmental Research Consultants Ltd.

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