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Latest release: version 5.1, June 2015

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ADMS 5 News

ADMS 5.2 release this autumn

We are currently finalizing the next version of ADMS 5, which is expected to be released in October 2016. New features for ADMS 5.2 include:

- extended flexibility with the time varying emissions (.var) file to allow more parameters to be varied;
- a more advanced ADMS Mapper.
- an enhanced wind rose viewer;

Users with valid [support](#) for ADMS 5 will be notified by email when the new release is available.

Additionally we will be releasing a completely updated screening model, ADMS-Screen 5.2, based on the new ADMS model. ADMS-Screen is designed to model emissions from a single source; for further details see the [CERC website](#).

ADMS 5 model survey

Thank you to everyone who took part in this year's User Survey. It is useful to find out how our models are applied and your feedback helps us to plan future model developments. We also received some excellent suggestions for discussion topics for our forthcoming User Group Meetings.

We have replied to everyone who supplied an email address. For those with outstanding queries, please do contact the Helpdesk.

On that note, we're very happy that 97% of survey respondents rated our Helpdesk service as excellent or good.

ADMS 5 User Group Meeting

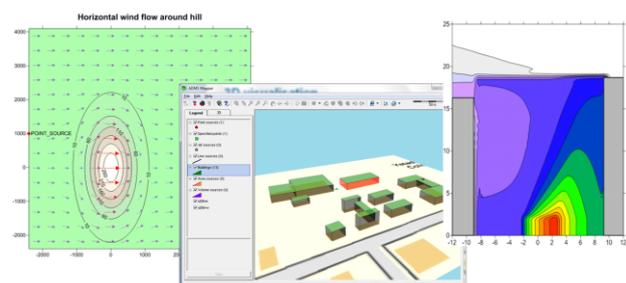
[Registration is open](#) for the 2016 ADMS 5 User Group Meeting, which will be held in Camden, London, on the 9th of November. The day will include presentations by CERC staff and software users and is an ideal opportunity to hear the latest news and advice on new model features.



Users with a valid support contract are entitled to one or two delegate places free of charge, depending on the type of licence held. This year the meetings will include a question and answer session; please submit your questions in advance to enquiries@cerc.co.uk.

Model survey statistics: GIS links

ADMS 5 includes a free GIS solution, the ADMS Mapper, in addition to links to the popular third party packages Surfer, ArcGIS, and MapInfo.

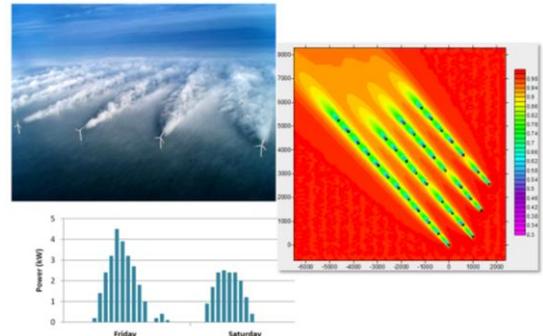


The most popular package is Surfer, with almost half our users regularly using it to visualise model inputs and plot contours of results.

CERC News

FLOWSTAR-Energy released

[FLOWSTAR-Energy](#) provides estimates of the energy yields from wind turbines as well as the flow field and turbulence familiar to users of ADMS 5 and FLOWSTAR. The model simulates air flow and turbulence over flat or complex terrain, including the effects of stratification, variable surface roughness and wind turbines. It also allows for wind turbine wakes, their interaction and their effect on the flow field and wind energy resource. FLOWSTAR-Energy can be used at scales from 5 metres up to 60 kilometres for both onshore and offshore sites. More information can be found [on our website](#)



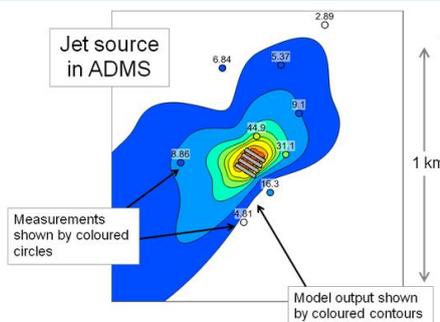
Model Evaluation Toolkit version 4.0 available

CERC's [Model Evaluation Toolkit](#) is a free software package for local and regional air quality model verification, using [openair](#) tools to create report-ready graphs and statistics from ADMS 5 output data. The tool can automatically download Londonair and UK AURN monitoring data to match model outputs.

Version 4.0 of the Toolkit was released in January 2016, with a new user interface. Please see the '[What's New in Version 4.0?](#)' document for a complete list of new features and improvements.

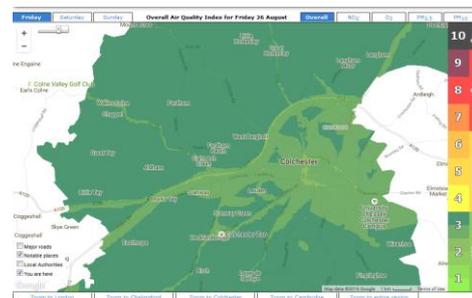
Consultancy News

Report on non-point sources published



The report '[A review of the limitations and uncertainties of modelling pollutant dispersion from non-point sources](#)' was published earlier this year. This report includes recommended agricultural and bioaerosol source parameter ranges for modelling releases from low-level sources near farm sheds.

Results from four validation studies are presented, with ADMS and AERMOD configured to represent emissions for all available non-point source types for each model. The work was funded by the UK Atmospheric Dispersion Modelling Liaison Committee and was co-authored by CERC, Steve Smith (A S Modelling & Data Ltd.) and Akula Venkatram (University of California, CA, US).

Colchester and Chelmsford join the *airTEXT* air quality forecasting service

We are delighted to announce the expansion of the [airTEXT](#) air quality and health forecasting service, which now includes forecasts for Colchester and Chelmsford. Residents can [sign up](#) for free air quality alerts via SMS text message, email, voicemail, and Twitter. The forecasts are also available on free apps for [Android](#) and [iPhone](#). The existing *airTEXT* service covers all thirty-three London Borough Councils, Slough Borough Council and Three Rivers District Council.

airTEXT provides three-day forecasts of NO₂, PM₁₀, PM_{2.5} and ozone at street-scale resolution using CERC's [ADMS-Urban](#) modelling system. For more information on *airTEXT*, ADMS-Urban or forecasting services please [contact CERC](#).

Training news

Discount on CERC training courses

A 20% discount applies to scheduled CERC training courses, if purchased at the same time as a software annual licence or support renewal. This discount also applies to one-day refresher courses.

Training must be booked within 12 months of purchase of the model to qualify for the discount.



Upcoming training courses

Our training courses focus on giving users the knowledge and expertise to efficiently apply CERC software to real-life air quality problems. CERC holds regular 2-day courses at its Cambridge offices. The table shows dates for 2017.

Courses may also be arranged at alternative locations and/or dates and can be customised to particular user requirements. For more information, visit www.cerc.co.uk/training or [contact CERC](#).

Course	Dates
ADMS 5	Jan 31 - Feb 1

Model survey questions

How can I model multiple stacks, with only the height changing, for stack height assessments?

Duplicating sources

Any source in a model run can be duplicated by right-clicking the source name, and selecting “copy”. All the input parameters, including location, are copied to the new source, so only the stack height needs to be changed.

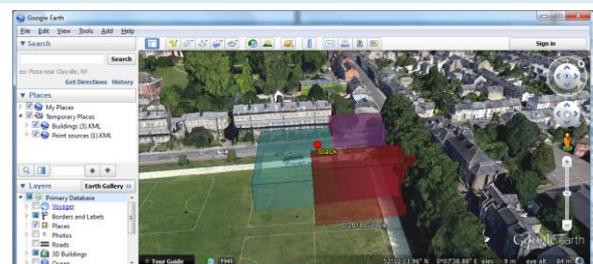
Using groups for stack height assessments

Output from each source in a model run can be selected by using the “Group/Source” button on the groups screen. This creates a separate group for each source in the model run, up to 20 sources, allowing results from each source to be compared.

How can I view model inputs in Google Earth?

The ADMS Mapper can export ADMS 5 model inputs to Google Earth *.kml* files.

Make sure the correct coordinate system is selected on the “Setup” screen of the main interface, then right-click the layer in the Mapper, and select “Export layer”, to KML...”.



How can I model multiple years of meteorological data at once?

A *.met* file containing up to 10 years of data can be used in the model and processed in the following two ways:

1. The model can produce a Comprehensive output file (*.nc*) containing hourly data covering the entire period. Different outputs, including yearly averages, can be created from this file using the [Comprehensive Output File Processor](#), located in the “Utilities” menu.
2. The “Use a subset of met. data” option on the meteorology screen can be used to run the model for a specified period within the larger *.met* file.

How many time-varying profiles can I use?

An unlimited number of time-varying emissions profiles can be incorporated in model runs through the use of a *.fac* file or a *.var* file.

See Section 4.1 of the [ADMS 5 User Guide](#) for instructions on how to create these files.

New and updated helpdesk notes

Instructions for carrying out many common model tasks can be downloaded from our [User Area](#). Some recently added or updated notes include:

[Difference between short term and long term output](#)
[Building roof orientation](#)

Recent publications

Stocker, J. *et al.* 2016: *A review of the limitations and uncertainties of modelling pollutant dispersion from non-point sources*. Atmospheric Dispersion Modelling Liaison Committee, ADMLC/2015/06 Report. [Article online](#)

Malkin, TL. *et al.* 2016: *Assessing chemistry schemes and constraints in air quality models used to predict ozone in London against the detailed Master Chemical Mechanism*. Faraday Discussions, DOI:10.1039/C5FD00218D. [Article online](#)

Stocker, J. *et al.* 2016: *Optimized use of real-time vertical-profile wind data and fast modelling for prediction of airflow over complex terrain*. Meteorological Applications, DOI: 10.1002/met.1544. [Article online](#)

Products and services

CERC have been developing world-leading air dispersion and complex flow modelling solutions since 1985. Our consultancy team was established to apply our expertise to a wide variety of applications for a diverse client base.

Other software solutions**[ADMS-Roads and Roads-Extra](#)**

Local scale air quality modelling including road and industrial sources

**[GASTAR](#)**

Modelling emergency releases of dense gases

**[ADMS-Urban](#)**

Urban scale modelling including roads, industrial and diffuse sources

**[FLOWSTAR-Energy](#)**

High resolution air flow modelling over complex terrain, including wind turbines

**[ADMS-Airport](#)**

Urban scale modelling with detailed treatment of aircraft emissions

**[ADMS-STAR](#)**

Short-term accidental release modelling

For custom-made software solutions, visit www.cerc.co.uk/research or [contact CERC](#).

Consultancy services

Our consultancy services include:

- Air quality assessments, e.g. odours, LAQM, planning and permitting
- Specialised modelling, e.g. dioxins, accidental releases, wind energy
- Compilation of emissions inventories and forecasting for large urban areas
- Project support and review services

For more details, visit www.cerc.co.uk/consultancy or [contact CERC](#).

Contacting the helpdesk

The CERC helpdesk is available to provide model support. Contact us:

- From the ADMS 5 interface, select Help, Email CERC
- Email help@cerc.co.uk
- Phone +44 (0)1223 357773