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HELPDESK**CERC NEWS****2013 ADMS 5 User Group Meeting**

The annual ADMS 5 User Group Meeting will be held on 13th November 2013 at the Assembly rooms in Newcastle-upon-Tyne. CERC would like to thank all the users who responded to the survey on the use of ADMS, and we have taken this information into consideration when planning this year's meeting. Presentations will be given by external speakers from the Environment Agency, United Utilities and Golder Associates, while CERC staff will cover topics including running AERMOD from ADMS 5, plume visibility and flare modelling. The full agenda can be found at [http://www.cerc.co.uk/software-support/assets/data/ugmflyers/ADMS 5 Agenda.pdf](http://www.cerc.co.uk/software-support/assets/data/ugmflyers/ADMS_5_Agenda.pdf).

Registration for this year's meeting is now open at <http://www.cerc.co.uk/software-support/user-group-meetings/registration.php>. Users with valid ADMS support contracts are entitled to attend the meeting free of charge, please check the registration website for the number of free places your support contract allows. Please note that the deadline for registration is the 1st November.

New releases

A patch update has been released for GASTAR version 3.2.2. GASTAR is CERC's model for the dispersion of dense gases, which is particularly suited to risk assessment and emergency response applications.

Version 3.2 of CERC's emissions inventory software, EMIT, has been released with updated emission factors.

MyAir Toolkit for Model Evaluation

The MyAir Toolkit for Model Evaluation developed by CERC is now available as a free download from <http://www.cerc.co.uk/environmental-software/myair-toolkit.html>. This useful tool can calculate statistics relating to the comparison of modelled and monitored data, and relating to the comparison of results from different models. It has an easy-to-use graphical user interface and makes use of openair tools. ADMS specified point (*.pst) output and UK AURN monitoring data can be directly imported into the MyAir Toolkit.

Annual report

CERC's 2011 – 2012 annual report was published in May 2013 and is now available at the link below. This report covers some of the major projects that we have recently undertaken, together with news of our development work. If you would like to receive a hard copy of the annual report please contact us.

http://www.cerc.co.uk/about-us/assets/data/CERC_annual_report_2011-2012.pdf

MODEL NEWS

Remember you can always access the latest model news, downloads and modelling advice at the CERC website User Area: <http://www.cerc.co.uk/software-support/user-area.php>.

ADMS 5 Service Pack 1 release

A service pack for the ADMS 5 model was released in April 2013. This includes: the full wind turbine modelling option functionality; a link to a newer AERMOD version (12345, October 2012); the option to use the AERMET pre-processor for meteorological data; and an extended source import utility, able to import data for all source types from text files into an .apl file. For full details of the model changes, please refer to the updated *What's New in ADMS 5* document. All users with current ADMS support contracts should have received the ADMS 5 Service Pack 1 release, and are advised to install and use this version of the model.

ADMS 5 validation documents

Validation study documents for ADMS 5, with comparisons to ADMS 4.2, are now available from <http://www.cerc.co.uk/environmental-software/model-validation.html>. In general, results have only changed substantially for runs including very tall sources and/or complex terrain effects.

System requirements

Current system requirements for CERC software can be found at <http://www.cerc.co.uk/environmental-software/system-requirements.html>.



MODELLING TIPS

Users are advised to use ADMS 5 with Service Pack 1 installed

Plume visibility in ADMS 5 Service Pack 1

A new additional input file option in ADMS 5 Service Pack 1 allows the user to specify the threshold value of ambient relative humidity at which the plume becomes visually indistinguishable from cloud or fog. In the Additional Input file editor, select the 'Threshold relative humidity' option and enter the desired threshold. Plume visibility outputs from ADMS 5 with Service Pack 1 may also have changed as the visible plume length output is now only for the section of visible plume nearest the source.

Modelling horizontal emissions with buildings

Jet sources cannot be modelled in combination with buildings. As an alternative, horizontal sources where buildings effects may be significant may be modelled as point sources with a low value of exit velocity (above 0.01 m/s if buoyancy effects need to be included), and the standard source diameter and temperature. Stack-induced downwash should be switched off using the .aai file option for any horizontal sources modelled in this way. This approach matches the US EPA guidance for modelling horizontal releases with buildings effects.

Long, narrow buildings

It is advisable to split long, narrow buildings into multiple, smaller buildings with smaller length to width ratios. This is because the model uses an algorithm to calculate dispersion around a single, wind-aligned, idealised building. If the actual building has a large length to width ratio then the idealised building may be distorted at the ends. Defining multiple, smaller buildings avoids this issue. Remember that information about the modelled buildings and the dispersion and concentrations around the buildings can be found in the *.bld, *.bef and *.bwk files.

Modelling averaging times greater than one hour

In order to model averaging times greater than one hour, the 'Met. data are hourly sequential' option must be selected on the Meteorology screen.

Heights in complex terrain

When modelling complex terrain, ADMS treats source and receptor heights as relative to the terrain. If you have source and/or receptor heights relative to sea level, the terrain height at the appropriate point should be subtracted from the height relative to sea level to give the height for use in ADMS.



PRODUCTS AND SERVICES

Training

CERC continues to carry out standard and customised ADMS courses to a varied client base. Training is given at the CERC offices in Cambridge and at client sites in the UK, as well as overseas. Training in the use of ADMS 5 was recently carried out at the offices of Petroleum Development Oman in Muscat. Customised training courses can provide training tailored to your organisation's exact requirements.

If you are interested in any of our training options, please email us at training@cerc.co.uk.

Consultancy service

For information about our consultancy services, please visit www.cerc.co.uk/environmental-consultancy.html

Software solutions

For information about our custom-made software solutions, please visit www.cerc.co.uk/environmental-research.html

HELPDESK

You can access the CERC helpdesk in a number of ways:

- From the ADMS 5 interface: Select Help, Email CERC.
- Email: help@cerc.co.uk
- Phone: +44 (0)1223 357773 between 09:30 and 17:00 hours and ask for the Helpdesk
- Fax: + 44 (0)1223 357492