

Summary of ADMS User Group Meeting 2007

Overview

This year's ADMS User Group meeting was held at The Studio in the centre of Birmingham on 27th November. The meeting was attended by around 45 users; we were particularly pleased to see so many people attending from overseas.

The programme included talks by CERC staff and invited speakers on topical issues and technical applications. Thanks go to all those who attended for helping to make it such a successful day, with special thanks to the external speakers, Sarah Burley from Excal UK Ltd and Michael Bailey from Envirocon.

A helpdesk service was available during breaks with questions answered by CERC staff.

Presentations

The day was introduced by David Carruthers, with a brief overview of some of CERC's main activities in 2007. Here is a brief summary of the talks presented throughout the day.

ADMS 4 developments

An **overview of ADMS 4** was given by Christine McHugh, highlighting some of the more significant developments in scientific and user features, and ADMS 4 utilities. Full details of what's new in ADMS 4 are provided with ADMS 4 and can also be found here: <http://www.cerc.co.uk/software/pubs/What's%20New%20in%20ADMS%204.pdf>.

The new **ADMS 4 Mapper** was demonstrated by Catheryn Price. The ADMS Mapper is an integrated mapping tool for displaying and editing source data, buildings and receptor locations, and, if Surfer or ESRI's Spatial Analyst is installed, for viewing results. The Mapper is provided as part of the ADMS 4 installation, together with the ADMS 4 Mapper User Guide, which gives full instructions on its use.

The use of **ADMS 4 with ArcGIS** was presented by Chetan Lad. Source and receptor locations may be passed between ADMS and ArcGIS using the ADMS 4 ArcGIS link, and results may be viewed in ArcGIS using the Spatial Analyst. Full instructions are provided with the ADMS 4 installation.

An **update** was given by Helen Higson on upcoming model releases, support and training. All future ADMS training courses will use ADMS 4: course details including costs, dates and a course outline are available from the CERC website <http://www.cerc.co.uk/software/training.htm>. Users were reminded of the information and support available via the helpdesk and the website, including the on-line User Area (<http://www.cerc.co.uk/users.htm>).

Validation of ADMS 4

Emilie Vanvyve and Christine McHugh presented a summary of the extensive work that has been undertaken by CERC on the validation of ADMS 4. An overview was given of the large number of datasets used and model comparisons for flat terrain calculations, hills and buildings. On the whole model performance is good, and continues to improve, with ADMS 4 showing significant improvement over ADMS 3 in some cases. The validation work is fully reported in a series of documents available from the CERC website <http://www.cerc.co.uk/software/publications.htm>.



Applications of ADMS

Sarah Burley from Excal UK Ltd presented a case study illustrating the value of ADMS 4 as a tool in the planning process. ADMS was used as part of an Environmental Statement for a wood-fired renewable energy facility in South Wales. Ground level concentrations of pollutants were calculated at nearby sensitive receptor locations, including schools and National Park areas. Specific issues included suitability of meteorological data, terrain effects and plume visibility.

Michael Bailey of Envirocon Ltd, Ireland, presented an “Impact Evaluation of SO₂ Emissions from Boiler Plant at a Dairy Manufacturing Facility”. He discussed some of the practical issues in obtaining data for the modelling, and stressed the importance of understanding the information provided, e.g. reference conditions for volume flows. In particular, he warned users to take care regarding the quality of input data and measurements.

Other software

Martin Seaton of CERC described a different type of model, ADMSSTAR, which is designed for assessing the impact of Short-Term Accidental Releases. The duration of the releases modelled by ADMSSTAR range from instantaneous (explosion) up to a few hours. This leads to a cloud, or puff, of released material, as opposed to a continuous plume. ADMSSTAR has been developed to account for spatial and temporal changes in wind direction (and other meteorological parameters) occurring during the episode. Please contact CERC for further details.

Discussion and feedback

CERC staff answered a wide range of questions in the helpdesk sessions, and from the feedback it is clear that this is a popular and useful element to the day.

Thank you to those who completed the feedback forms, and for the helpful suggestions for future meetings. We aim to include talks that appeal to a wide range of users and the achievement of this seems to be supported by user’s comments with different people appreciating different parts of the meeting. Feedback from the meeting was very positive, with the location and refreshments scoring particularly well.

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