

EDMS *Reference Manual* Supplement

-Model Changes between EDMS 4.4 and EDMS 4.5-

June 15, 2006

Roadways & Parking Facilities

Change	Effect
<p><u>MOBILE</u> In EDMS 4.4, selecting anything other than 'Default Fleet Mix' while requesting the "System Generated Values" would result in Mobile 6.2 producing non - numeric values due to a memory error. EDMS 4.5 has corrected this error.</p>	<p>The memory bug has been fixed and the correct emissions factors are now produced.</p>
<p><u>MOBILE</u> In previous versions of EDMS, every new roadway and parking lot added to the study and every change to the vehicle emissions parameters resulted in a time consuming MOBILE run. In EDMS 4.5, MOBILE will run only after the Apply or Ok button have been clicked.</p>	<p>This gives the user more flexibility to make changes to multiple sources without having to wait for MOBILE to complete execution.</p>
<p><u>MOBILE</u> EDMS 4.5 includes an updated MOBILE 6 table which corrects overestimated PM values for heavy duty vehicles using diesel fuel for the year 2007 and beyond.</p>	<p>This gives the users more accurate PM 10 and PM 2.5 emissions for vehicles affected by the new MOBILE table.</p>
<p><u>Parking & Roadway Emissions Factors</u> Previous versions of EDMS rounded all roadway and parking emissions to a precision of 2 decimal places. This would result in small emissions values being reported as 0.00. In EDMS 4.5, parking and roadway emissions factors now have variable precision of up to 4 decimal places.</p>	<p>Emissions factors are now modeled with greater precision of up to 4 decimal places.</p>
<p><u>PM Emissions</u> Previous versions of EDMS had a 0 to 2 grams/vehicle mile limitation on parking lot and roadway PM. EDMS 4.5 has lifted that restriction.</p>	<p>This allows for fugitive dust to be accounted for in the PM fields.</p>
<p><u>Update Study</u> Upon updating from 4.x to 4.4, user edited emissions values for parking and roadway sources were not being updated correctly. EDMS 4.5 updates the emissions values where applicable and maps HC and PM to THC and PM 10 respectively.</p>	<p>User edited emissions have been preserved while updating studies that were created in previous versions of EDMS.</p>

Study Setup

Change	Effect
<u>MOBILE</u> Previously, changing MOBILE version to 5b or 5a would cause EDMS to hang.	In EDMS 4.5, MOBILE 5a and 5b now execute without crashing and output the correct emissions results.

View Concentrations

Change	Effect
<u>Concentration files</u> Previous versions of EDMS did not have the capability to stop loading concentrations files. EDMS 4.5 now provides the user with the option to stop loading concentrations.	The ability to stop loading concentration files saves the user time when they have mistakenly loaded the wrong concentration file.
<u>Concentration files</u> In previous versions of EDMS, only the concentration files that were created with the current study were loaded into the list of available concentration files. EDMS 4.5 loads all concentration files in the study folder into the available list regardless of where they were created.	This gives the user easy access to any concentration file that exists in the current study folder.

AERMOD

Change	Effect
<u>Generate AERMOD input files</u> In previous versions of EDMS, the (.hre) files use fixed notation with a precision limitation of 8 places after the decimal to model hourly emissions. EDMS 4.5 now uses scientific notation to represent the hourly emissions.	Hourly emissions are more accurate as a result of the use of scientific representation.

Emissions Inventory

Change	Effect
<u>Printing</u> EDMS 4.5 now displays the date for when the emissions inventory was run.	When printing emissions, users can now see the date the emissions inventory was created.