

# EDMS *Reference Manual* Supplement

## -Model Changes Between EDMS 3.11 and EDMS 3.2-

### January 24, 2000

#### General

Change	Effect
<p><u>Initial Dialog Box</u> In previous versions, the most recent study file used was automatically opened when EDMS was launched. EDMS 3.2 includes an initial dialog box to provide users the option of creating a new study, opening the most recent study, or opening an existing study from disk.</p>	<p>This change allows the user to more rapidly access their studies or create a new study.</p>
<p><u>Existing Studies</u> While EDMS 3.2 allows studies created in previous EDMS versions to be opened, the user is prompted to regenerate emissions inventories in version 3.2.</p>	<p>This change offers users the ability to easily migrate their studies to EDMS 3.2.</p>

#### Aircraft

Change	Effect
<p><u>Duplicate Aircraft-Engine Combinations</u> In previous versions of EDMS, an aircraft-engine combination could only be used once in a study. EDMS 3.2 provides users the ability to use the same aircraft-engine combination multiple times by naming an identification for each aircraft-engine combination.</p>	<p>This change provides more flexibility in terms of more realistically modeling airports. To model more complex airports (e.g., where the same aircraft type may be operating from multiple different gates, taxiways, and runways) in previous versions of EDMS, the user had to create their own “copies” of the aircraft-engine combination they wanted to model. This new feature eliminates having to create multiple copies of aircraft for this purpose, and allows the user to attach a custom label to each aircraft-engine combination.</p>
<p><u>Aircraft-Engine Combinations Update</u> Databases were modified as necessary in EDMS 3.2 to include revised aircraft-engine combinations consistent with recent fleet estimates.</p>	<p>This update provides the user with current aircraft-engine combinations.</p>

Aircraft-Engine Combination View/Print

In previous versions, the user had the ability to view system aircraft-engine combinations within the aircraft activity and LTO cycle window. Two new options for viewing this data have been added to the view/system tables window in EDMS 3.2. The options allow the user to view and print the list of EDMS system aircraft-engine combinations by either aircraft type or by engine type.

This change offers the user a more flexible interface when viewing aircraft-engine data.

Aircraft-Engine Dialog Box

EDMS 3.2 uses a new type of dialog box to display the aircraft-engine combinations that are being utilized.

This change provides more consistency with the current MS Internet Explorer style lists.

Aircraft Engine Emission Factor Update

Databases were updated as necessary in EDMS 3.2 to include new aircraft engine emission factors in accordance with recent ICAO databank updates.

This update provides the user with the most current aircraft-engine emission factors.

Aircraft Engine Emission Factor Correction

The aircraft-engine emission factor database has been revised in EDMS 3.2 to correct a typo. The NOx emission factor for the JT3D-3B engine during taxi/idle has been changed from 12.15 kg/hr to 1.215 kg/hr.

The purpose of this change was to correct a typo existing in the previous database.

Aircraft Time-in-Mode

In EDMS 3.2, the user has the ability to view aircraft takeoff, climbout and approach mode times.

This change provides more flexibility and accuracy in evaluating emissions.

Aircraft Taxi and Queue Times

It is important for the user to understand that the aircraft taxi time entered and used for emissions calculations consists of two components, aircraft taxi and aircraft queue. The Aircraft LTO screen now prompts the user to input the taxi time and the queue time separately.

This modification was made to reduce confusion by clearly distinguishing between these two time components.

User-Created Aircraft

In EDMS 3.2, a footnote was added for user-created aircraft to explain that default GSE and APUs are not automatically assigned to the aircraft, the user must manually assign this equipment.

This modification was made to serve as a reminder to the user that when they are creating aircraft they must use the GSE and APU option under the Emissions/Aircraft Menu to assign equipment.

**Auxiliary Power Units**

**Change**

APU Default Assignments

Modifications have been made in EDMS 3.2 to update the APU default assignments for aircraft using FAA/EPA data contained in their "Technical Data to Support FAA's Advisory Circular on Reducing Emission from Commercial Aviation" draft report (1995).

**Effect**

This change provides the user with updated default assignments allowing them to more quickly create their study.

## Vehicle Parking Lots

<b>Change</b>	<b>Effect</b>
<p><u>Average Distance Traveled in Lot</u> In EDMS 3.2, the vehicle distance input label within the vehicle emissions input screen has been modified to clarify that the input is the round-trip distance versus one-way.</p>	<p>This change provides clarification to the user to avoid confusion.</p>

## Dispersion

<b>Change</b>	<b>Effect</b>
<p><u>Concentration Decimal Places</u> The number of decimal places displayed and stored for calculated concentrations in EDMS 3.2 has been reduced.</p>	<p>This change was made to more appropriately reflect the precision of input data sources. It also mitigates the issue of very large concentration values being cut-off at the edge of the page in the printed output. Finally, this change reduces the amount of hard disk space required for a dispersion run by approximately 30%. (Note: Dispersion calculations for pre-existing studies must be re-run in order to take advantage of the hard disk space savings.)</p>
<p><u>View Concentrations Screen</u> The view concentrations screen has been revised in EDMS 3.2 to clarify that one-hour average concentrations are only available for individual emissions sources.</p>	<p>This revision was incorporated to restrict the user from making selections that are not supported.</p>
<p><u>Dispersion Run Results</u> In previous versions of EDMS, the completion of a dispersion run was signaled by a window that displayed a summary of the sources, number of receptors, and number of weather hours included in the run. This information summary also was included in the dispersion report. In EDMS 3.2, only the amount of time required for the run is displayed in the dispersion run window and report.</p>	<p>This change eliminates information formerly on this screen and report that had been a source of confusion for users. (An organized and complete printout of all study inputs has been added. See the "Study Input Report" change under View/Print.)</p>

## Reports

<b>Change</b>	<b>Effect</b>
<p><u>Study Inputs Report</u> The option to print a list of all study inputs has been added to the Report Screen in EDMS 3.2.</p>	<p>This change allows the user to easily print all study input parameters for review and reporting purposes.</p>
<p><u>Print Emissions Report</u> In EDMS 3.2, the "Print Emissions Report" options within the report screen have been clarified from yes/no/cancel to detailed/brief/cancel.</p>	<p>This screen originally asked if a detailed report was desired. The new screen helps to eliminate confusion when printing an emissions report.</p>