

# EDMS *Reference Manual* Supplement

## -Model Changes between EDMS 4.1 and EDMS 4.11-

December 13, 2002

### Study Conversion

Change	Effect
<u>EDMS Version</u> When opening older studies, version 4.11 provides the user with the EDMS version that created the study. This is a new feature.	The user can easily determine which previous version of EDMS was responsible for the creation of an older study.

### Study Setup

Change	Effect
<u>Cancel Button</u> In version 4.1, when a user first visits the Study Setup dialog box after just creating a new study, the "Cancel" button is enabled. If cancel is pressed on the first visit, required information will not be saved and the study becomes invalid. Version 4.11 corrects this problem by disabling the "Cancel" button on the first visit.	The user is forced to press the "OK" button to end the first visit, thus validating the study information.

### Parking Lots

Change	Effect
<u>Emission Factors</u> In version 4.1, if a user decides to assign system default emission factors, the assigned emission factors do not reflect any recent change to the average distance traveled per vehicle. In fact, the previous value is used instead. Depending on whether or not the new distance is longer or shorter than the old distance, the emission factors cause an underprediction or overprediction, respectively. This behavior has been fixed in version 4.11.	The assigned emission factors correctly reflect the distance traveled.

## AERMET Wizard

### **Change**

#### Emission Factors

In version 4.1, after AERMET finishes processing the fourth step, the wizard closes. In version 4.11, the wizard remains open.

### **Effect**

Instead of having to reopen the AERMET wizard, the user may continue using the wizard even after AERMET processes the fourth step

## AERMOD Input File Generation

### **Change**

#### Averaging Period

In version 4.1, the averaging period is always set to one (1) hour no matter what the user has otherwise selected. This behavior has been fixed in version 4.11.

### **Effect**

Users can select other averaging periods and have their choice reflected in the generated AERMOD input file.

#### Operational Profiles

In version 4.1, any source's assigned operational profiles are generally ignored and the "DEFAULT" profiles are used instead. This behavior has been fixed in version 4.11.

Users can properly model operational profiles in dispersion analyses.

#### Receptor Elevations

In all previous versions, the "ELEVUNIT FEET" record is not written to the receptor section of the input (.inp) file. Without this, AERMOD reads all receptor elevations as meters instead of feet, therefore causing AERMOD to underpredict concentrations. For example, if a receptor's elevation is 100 feet, then AERMOD reads this as 100 meters (about 328 feet) and receptor is modeled as being 228 above the ground plus any flagpole height. The effect is clearly multiplied for airports at higher elevations. This behavior has been prevented in version 4.11.

AERMOD will process receptors at the correct elevation.

## Airport View

### **Change**

#### Receptors

In version 4.1, receptor graphic flags are drawn larger or smaller depending on the current scale. In version 4.11, the flags are always drawn at the same size.

### **Effect**

The user can more easily access graphics that lie close to a receptor.

Stationary Sources

In version 4.1, the stationary source icon was the red biohazard symbol. In version 4.11, the icon has been changed to a factory.

The user is presented with more publicly acceptable graphic.

Graphic Selection

In version 4.1, if all of the sources and receptors are localized to a region sufficiently distant from the origin, right-click selection of the graphics will fail for some scales of zoom. This behavior has been fixed in version 4.11.

Users can use the mouse to select source and receptor graphics when all of a study’s source and receptor coordinates are far from the origin point, (0,0).

**Export Utility**

**Change**

Browse Button

In version 4.1, the Export utility’s “Browse” button doesn’t work and when pressed causes the export process to immediately begin (unexpectedly to the user). This behavior has been fixed in version 4.11.

**Effect**

The user can browse for a desired file location to export before starting the export.

**Import Utility**

**Change**

Study Year

In version 4.1, study year is never actually imported. This behavior has been fixed in version 4.11.

**Effect**

The user can import study year information.

**Add/Create... Utilities**

**Change**

Aircraft, GSE and APUs

In version 4.1, if a user makes changes to a user-created aircraft, GSE or APU, is prompted to apply the changes and then chooses to *not* apply any changes, duplicate entries for the edited item appear in the item list. This behavior has been fixed in version 4.11.

**Effect**

Users can safely decline to not apply changes to user-created items without experiencing a potential breakdown of the utility interface.