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CAP88-PC 4.1 Quick Start Guide

I. Purpose

This Quick Start guide provides basic installation and operating procedures for users who have a general knowledge of air dispersion compliance codes. For detailed user information, refer to the “User Guide” which is available within the program under the ‘Help’ Menu or by clicking the “?”.

II. System Requirements

Operating System(s)	Windows 7 Windows 8 Windows 10
.Net Framework	NET Framework version 4
Monitor Resolution	1024x768 or higher
RAM	2 GB or higher

III. Installation

1. Download the installation file to a temporary folder (ex. My Documents\Downloads\CAP88PCV41).
 - <https://www.epa.gov/radiation/cap-88-pc>
2. Run the CAP88PCV41Install.exe file. This will start the installation routine.
 - Choose “Run as Administrator” to proceed. If given the ‘Windows protected your PC’ box, choose “Run anyway”.
 - The installation checks if .NET Framework 4 is installed. If not, it attempts to download and install it. (A working internet connection is required for this step.)
 - CAP88-PC 4.1 can be installed side-by-side with CAP88-PC 3; however, they cannot use the same dataset.
 - CAP88-PC Versions 3 and 4 data files can be migrated to a new Version 4.1 installation.

IV. Running CAP88-PC 4:

To start the program, use the CAP88-PC 4 shortcut that should be located on the PC desktop (or navigate to the location chosen during installation). The first time you run CAP88-PC Version 4, a message will appear, explaining that this is the First Run. Click OK to continue, which will open the [Migration Utility](#). The utility will be preset to upgrade files from CAP88-PC version 3 to version 4 if you have version 3 installed. Version 4 updates to version 4.1 occur ‘seamlessly’. If this is a new install (no previous installations of CAP 88 Versions 4.0 or 4.1 are on the computer) then check the box “Copy v4 default pop/wnd files to destinations (no overwrite)”. The utility can also organize migrated files in the recommended way by creating the default Version 4.1 file system and populating the default folders with the migrated data. When first opened, the destination folders are set to match the folders selected in Tools > Options.

V. Managing Datasets for CAP88-PC 4

To open an existing dataset (modify an existing run for a facility):

1. Choose Open > Dataset, or click the toolbar's Open icon. The default action is to open a dataset.
To create a new dataset (run the model for a new facility or with entirely new data):
2. Choose File > New > New Dataset, or click the toolbar's New icon. The default action is to create a new dataset.

VI. Editing Datasets for CAP88-PC 4

1. To edit an existing and/or new dataset:
 - a. For existing: Choose Open > Dataset or click the toolbar's Open icon.
 - b. For new: Choose File > New > New Dataset or click the toolbar's New icon.
 - c. **There are 8 Dataset Edit Tabs (Dataset being the first one).**

NOTE: A file cannot be saved if it has errors. Errors are displayed in the ERRORS status box, and next to the field(s) with errors.

- i. **Facility** tab is used to describe the facility and time to be modeled.
 - *Some facility information can only be entered in the Agricultural tab (State). Most users will find going to the Ag tab next is more comfortable.*
- ii. **Population** tab is used to describe the population to be assessed and select optional reports. This tab is also where the user determines if the dataset will be run using an input population file or will be an individual run using a user-defined grid.
- iii. **Meteorological** tab is used to describe wind conditions.
- iv. **Sources** tab is used to identify the type of emitting source and the dimensions of each emitting source being assessed.
 - The emitting sources must be identified as stacks (point) or area sources.
 - Up to six emitting sources (stacks or areas) may be modeled.
 - The method for plume rises above the physical stack height is entered here.
- v. **Agricultural** tab is used to enter agricultural factors that will be applied to the dispersion data to estimate uptake of emitted radionuclides into the food chain.
- vi. **Nuclides tab is used to select and describe characteristics of the radionuclides emitted by each source.**
- vii. **Reports** tab is used to generate the assessment reports. CAP88-PC will always create Synopsis, General and Weather reports.
 - Select reports to generate in the Population tab.
 - Select "Current" to print the currently displayed report. Choose "Selected" to print one or more reports. Only checkboxes for available reports will be enabled.
 - Reports can only be generated if the dataset has no outstanding changes or errors.

NOTE: If you begin editing a field, the change is not recorded until you click away from the field on the form itself. If the user clicks on the save button first, the in-process edit will revert to the previous value.

A. Identifying a Population File

For the program to run, you must identify a population file if this is not an 'individual' case. CAP88-PC has files available for several labs and facilities. However, you may need to edit the supplied file or create a new file for your specific run.

B. Identifying a Wind File

For the program to run, you must identify a wind/meteorological file. CAP88-PC has files available for several labs and facilities. However, you may need to edit the supplied file or create a new file for your specific run.

C. Running CAP88 PC for your Dataset

To save a dataset:

1. Click File > Save, File > Save As, or click the toolbar Save button.
 - a. After saving, the Dataset tab shows the last save datetime. This datetime only changes if the dataset itself changes.
2. Click "Reports", and then "Generate" to generate a report/run the program.