CAP88-PC Version 4 Setup Instructions

**Release 4.0.1.17**

*Changes from Version 4.0.0.0*

Version 4.0.1.16 is a maintenance release of CAP88-PC Version 4. The updates include

* Longer file names supported (theoretically up to 240 characters)
* Changed the agricultural data to have 4 decimal places
* Changed the population/individual grid values to be integer entry
* Support larger populations in both sectors and the total assessment area
* Updated the label for the user selection of the dose/risk reporting from “Midpoint Index” to “Midpoint Distance” to properly reflect the new selection criteria.
* Changed the help files to reflect the above.
* The default datasets that come with the updated release package, Modtest.dat and CAP88Def.dat, are now written into the datasets folder when the migration utility is run. This will overwrite the existing versions of these files so new reports will need to be generated after the update is installed and the migration utility run. This behavior was changed to ensure that the users have consistency between the release version and the associated default datasets.
* Beta2\_6 code base

**Release 4.0.0.0**

*Significant Changes* from Version 3

Version 4.0.0.0 has many significant updates from Version 3. These include:

* Age-group dependent dose and risk factors
* Age-group dependent ingestion rates from EPA Exposure Factors handbook
* Numerical solutions of the decay, deposition, and in-growth rate equations, replacing the approximate solutions used in Version 3.
* Many User Interface updates
* Signed code compatible with Windows version from WinXP Service Pack 3 to Windows 8.1
* A new data system whereby the code and user data install into separate locations by default
* Significantly faster execution time
* Expanded isotope sets and additional chemical forms for many isotopes
* A utility to transfer Version 3 input datasets into Version 4

*Installation Instructions*

**If you have a previous installation of CAP88-PC V4:**

This version requires any previous CAP88-PC V4 packages to first be uninstalled using the Windows Uninstall function; save any data from previous versions in a renamed folder for historical retention if desired. The new installation should not overwrite user-created datasets from the previous installation of CAP88-PC V4. Accordingly, it is not necessary to remove all previous data files prior to installing this package, but if you do not remove the data folders from previous installations be aware that:

1. You will not refresh the data folders (default location of C:\Users\*username*\My Documents\CAP88) so the wind, population, and case datasets that are part of the package will not revert to the set packaged with the new code, and
2. You will not install the fortran code that is part of this new release. This release contains an update to the FORTRAN code, so if you did not remove the data folders placed by a previous installation you MUST refresh the fortran to the latest release by starting CAP88-PC V4 (after this installation) and clicking through Tools>Options>Advanced>Refresh FORTRAN. We recommend that you use Refresh Upgrade to re-initialize all the files that came as part of the installation package, but you may choose not to run Refresh Upgrade if you have made customizations to the datasets, population, or wind files that are packaged with the installation set.

If a previous CAP88-PC V4 installation was uninstalled and the data folders were removed (or renamed to avoid overwrites), you should run the migration utility in order to recreate and populate the dataset, pop, and wind folders. To do so, immediately after this installation click through the tools>migration utility menu selection and check the box next to “Copy V4 pop and wind files to destinations (no overwrite)…”

After installing the updated version it is strongly recommended that you run the migration utility in order to install the updated Modtest.dat and CAP88Def.dat dataset files. Running the migration utility (use Tools>Migration Utility) will write the updated version of these dataset files into their respective dataset folders, overwriting the existing files. This maintains consistency between the installed version of the code and the sample datasets, however, these sample datasets must be executed again in order to update the associated report files if any report files already exist for these sample datasets.

**Setup Process**

NOTE: CAP88-PC Version 4 uses signed code to verify authenticity. You may receive a message during installation requesting acceptance of code written by Trinity Engineering Associates or EPA. Please accept the request.

To setup CAP88-PC Version 4 on your system double-click the CAP88PCV4.Setup.msi file that is in the directory created during the unzipping of the downloaded archive file. Follow the installation instructions in the setup screens to install the program files. Follow the steps below to install the data files and/or migrate any existing version 3 files.

If this is a first installation of CAP88V4 the migration utility will run when CAP88PC V4 is initially launched. The migration utility provides two functions; first, the ability to convert version 3 datasets, population, and wind files to version 4 and write them into the version 4 data folders, and second, to write the version 4 default datasets, population, and wind files to the version 4 data folders.

**If this is the first time CAP88PC V4 is installed on the machine and an existing version 3 installation is on the machine, follow the instructions on the migration utility to**:

1. select the folder location where you wish the version 4 data files to exist (or accept the default) under the Version 4 File Migration/Destination Folders header.
2. identify the location of the V3 database (usually c:\program files (x86)\cap88-pc30)
3. if not checked automatically, check the box labeled “copy v4 default pop/wnd files to destinations (no overwrite)”. This will copy the version 4 population, wind, and pre-packaged dataset files into their respective folders after the version 3 files are migrated. Version 4 default files having the same name as migrated version 3 files will not be written to the data directory in order to prevent destroying custom data files from version 3 that retained the name after customization.
4. select the dataset, pop, and wind file options and locations (the folders where you wish these to reside)
5. run the migration utility
6. close the migration utility window using the small window controls in the upper right corner. Be careful not to close the main CAP88-PC Version 4 window; the migration utility window controls are below the main window controls.
7. The migrated datasets and other files should be available under the File>Open menu

**If this is a re-install and the data folders were renamed to keep a historical record, the migration utility may need to be re-run to populate the default dataset, pop, and wind folders. To do so:**

1. use the tools>migration utility menu selection to start the migration utility
2. enter the desired folder locations for the V4 data or accept the default locations under Version 4 Migration/Destination Folders
3. check the box next to “Copy V4 pop and wind files to destinations (no overwrite)…”

The user can use the Tools>Options>Advanced menu to reassign the location of the data folders at any time after installation.

If the data files from a previous installation were not removed or their folders renamed, then a refresh of the data folders is necessary. To refresh the FORTRAN code to the latest release, use the Tools>Options>Advanced menu selection path to arrive at the refresh screen. Click the Refresh Upgrade button to refresh the FORTRAN and the data files to those contained in this release package. Click the Refresh FORTRAN button to limit the refresh to only the FORTRAN files contained in this release.

**Installation check case files:**

A set of sample report files are contained in the folder Modtest40117 as part of the release package. The Modtest case is included as a sample input dataset; the version of Modtest that corresponds to this release package will be installed into the dataset folder location when the migration utility is run (see **If you have a previous installation of CAP88-PC V4:** for more information). Correct installation can be verified by executing a case using the supplied Modtest input dataset file and comparing the resulting output reports to those in the Modtest40117 folder.

*Help Documentation*

CAP88-PC Version 4 was designed with an extensive context-sensitive on-line help package that incorporates the traditional CAP88-PC User Manual. The on-line help can be accessed anytime while the code is being run by clicking the blue help icon on the main menu. A PDF version of the traditional user manual that contains the information from the on-line help system is available as part of this installation. It is located in the Help folder under the CAP88-PC Version 4 program installation folder (default location is C:\Program Files (x86)\CAP88\CAP88-PC 4\Help).