

# SMARTS code, version 2.9.5

## For PC

### Quick Start Guide



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#### Installation

The distribution package is zipped (compressed). Decompression will create the SMARTS\_295\_PC folder.

#### Important

Read the **License Agreement** in file 'AAgreement\_LICENSE.txt' and, *if and only if you agree with its terms*, proceed further as described below.

#### Folder content

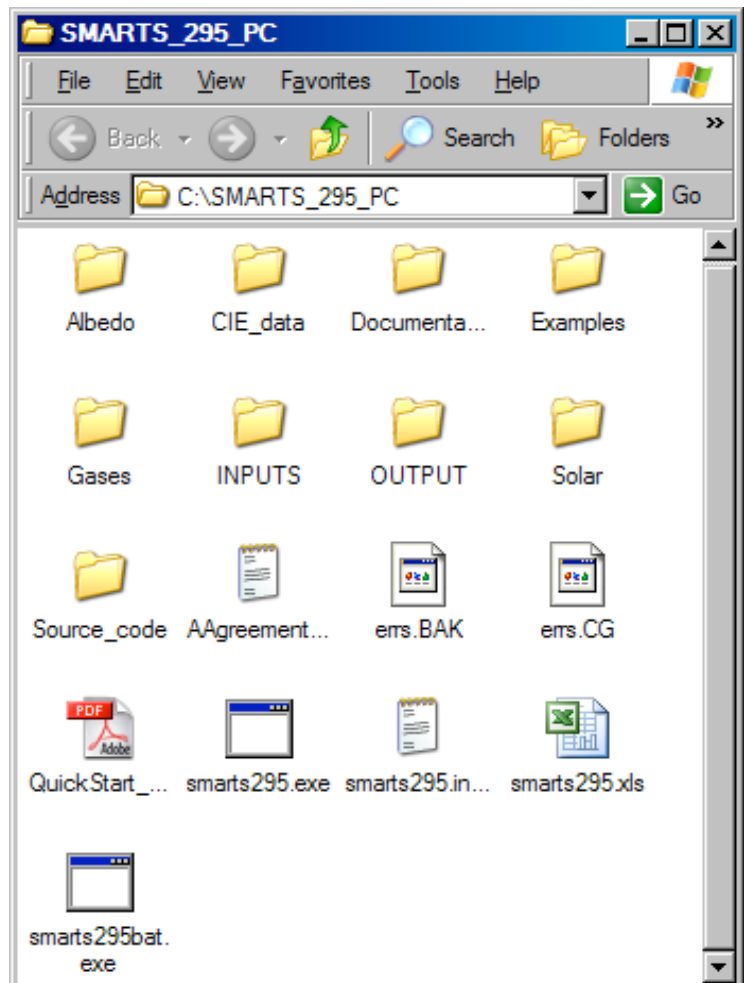
A typical screenshot of the SMARTS\_295\_PC folder is shown here. The exact appearance depends on your own settings and View options.

The Standard executable is the 'smarts295.exe' file.

The Batch executable is the 'smarts295bat.exe' file.

The 'smarts295.inp.txt' file is a sample input file that you can use to familiarize yourself with the two execution modes described below.

The User's Manual can be found in the Documentation folder.



## Standard execution

To run in Standard mode, double-click on 'smarts295.exe'. A welcome message appears, as follows.

```
*****
Welcome to SMARTS, version 2.9.5!
*****
SMARTS_295> Use standard mode with default input file?
[If YES (or Y), execution will start immediately
using the default input file smarts295.inp.txt]
(Y/N) ==>
```

If you type “y” or “yes” and hit Enter, execution begins immediately. The window closes automatically when execution ends.

Execution of the preloaded sample input file must have created two separate output files: 'smarts295.out.txt' and 'smarts295.ext.txt', both located at the root of the SMARTS\_295\_PC folder.

If you rather type “n” or “no” and hit Enter, the following message appears:

```
$$$ SMARTS_295> What is the path to the input file?
* Type only "." if in the same folder
* Do NOT type the last "/" of the chain
* 2000 characters max. ==>
```

Type the path pointing to your input file or type “.” if the file resides in the current folder. For instance, type 'INPUTS' if it is located in the INPUTS folder of SMARTS\_295\_PC. Hit Enter and the program will ask for the proper filename:

```
$$$ SMARTS_295> Generic name for all input/output files
* without any extension
* 100 characters max.)? ==>
```

For instance, type “Test\_for\_July” if the input file is 'Test\_for\_July.inp.txt'. Hitting Enter results in:

```
$$$ SMARTS_295> You chose the following filenames:
Input: INPUTS/Test_for_July.inp.txt
Output: INPUTS/Test_for_July.out.txt
Spreadsheet-ready: INPUTS/Test_for_July.ext.txt
Smoothed results: INPUTS/Test_for_July.scn.txt
$$$ SMARTS_295> Is this OK? (Y/N) ==>
```

Type “y” if it is OK, or “n” if not, and hit Enter. If you choose “yes”, execution starts normally and finishes identically as before. If you choose “no”, the previous message reappears and the cycle continues until you reply “yes”. The output files will be located in the same folder as the input file, e.g., in the INPUTS folder for this example.

To use any sample input file contained in one of the subfolders within the Examples folder, move it to the root of the SMARTS\_295\_PC folder, thus replacing any pre-existing file of the same name. However, before undertaking the execution of any new run using an input file with the same name, it is imperative to either rename the existing output files, or to move them to the OUTPUT folder or any other folder. *Failing to do so would prevent proper execution.*

### **Batch execution**

Another executable, 'smarts295bat.exe', is available. When double clicked, the program runs without user interaction. It assumes that the correct input file is 'smarts295.inp.txt' at the root of the main folder. It is also the executable used by the graphical user interface (available separately; see next section). This single message appears:

```
*****  
Welcome to SMARTS, version 2.9.5!  
*****
```

and, when the program stops, the window closes automatically.

It is clear that the actual execution time will vary according to your computational power. Execution of the sample input file must have created two output files: 'smarts295.out.txt' and 'smarts295.ext.txt' at the root of the SMARTS\_295\_PC folder. To avoid problems, it is recommended to move the output files to the OUTPUT folder (or any other folder) before the next run.

### **User interface**

A user-friendly and graphical user interface is available as a separate download. It results from collaboration with scientists at the National Renewable Energy Laboratory (NREL). This interface has a separate User's Manual, but most of its features are self explanatory for maximum usability. Its only role is to help prepare a correct input file, and is therefore particularly intended for novice users.

### **What's next?**

At this point, you are certainly eager to customize the default input file to obtain the results you really want. Novice users should take advantage of the graphical user interface for a convenient step-by-step procedure. More advanced users can use an appropriate text editor, such as Notepad or Wordpad, to modify the input file ('smarts295.inp.txt') according to their needs, based on the detailed explanations provided in Section 6 of the User's Manual. Save it as TEXT, with the same filename, or any other name of your choice, in the format 'any\_file\_name.inp.txt' (e.g., 'Test\_for\_July.inp.txt'). Note that the default input filename is 'smarts295.inp.txt', and that Windows commands are not case sensitive.

### **System and Hardware requirements**

This version has been tested on Windows 2000 and XP systems only.



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