Getting started with FOCUS_SWASH

(Valid for FOCUS_SWASH_1.1) Back

How SWASH works

Introduction

SWASH is an overall user-friendly shell around a number of individual tools and models, involved in Step 3 calculations for the FOCUS Surface Water Scenarios. It allows the user to define pesticides in a common database, to create projects containing FOCUS runs and to prepare input for the MACRO, PRZM and TOXSWA model. SWASH also presents some key information.

Projects composed with aid wizards

The calculation of exposure concentrations in a FOCUS ditch, stream or pond is done in runs, which are compiled in projects. Projects can be composed with the aid of either the FOCUS wizard, or the user-defined wizard. The FOCUS wizard composes a project, containing all valid FOCUS runs for a selected combination of substance and crop. The user-defined wizard composes a project, containing a selected number of FOCUS runs for one substance for a selected combination of crops, waterbody types and scenarios.

MACRO, PRZM and TOXSWA models to be run with own shells

Once all specifications of the project are correct the user :

1. transfers all prepared input to the three models by clicking on the button with: Export FOCUS input to MACRO, PRZM and TOXSWA at the 'Overview of composed projects' page
2. prints the SWASH report to obtain an overview of all runs to do, by clicking on the button 'View Report'.
3. comes back to the main entrance page with the red MACRO, PRZM and TOXSWA buttons in the upper bar and clicks on MACRO to enter the MACROinFOCUS shell to do the MACRO runs, listed on the printed overview of 2. As much input has already been prepared in SWASH operations in the MACRO shell are limited.
4. quits the MACRO shell, once all MACRO runs have been done, and enters SWASH again on its main entrance screen, where he now clicks the TOXSWA button to enter the TOXSWAinFOCUS shell. Here all TOXSWA runs for drainage scenarios are done, that are listed on the printed overview of 2. The calculated exposure concentrations are reported in a succint FOCUS report for each run.
5. Repeats point 3 and 4, but now for PRZM and TOXSWA for the runoff scenarios.

Please note that the spray drift entries into the FOCUS waterbodies are automatically calculated by composing the projects in one of the two wizards and written directly into the TOXSWA input files.

System Requirements

Operating systems:
SWASH has been tested on Win98, Win2000, WinNT and WinXP. SWASH is likely to run on Win95 machines, however, this has not been tested.

Access rights:
On Win98, WinNT, Win2000 and WinXP machines it is necessary to have Administrator rights.

Preinstalled software:
Windows version 98 or higher (technical support only provided from Win98, 2nd edition or higher). For Windows NT a MS Office package is needed

Hard disk memory:
SWASH requires 6.5 Mb for installation.

Display:
Monitor with at least 800x600, at 256 colors. Use as display setting, Font size: Small Fonts.

Processor:
The faster the better.

Known bugs:

- In SWASH: none
- In communication with FOCUS_PRZM_SW 1.1.1:
  - project name of 17 characters or more including one or more underscores leads to PRZM run error (SWASH allows project names of up to 20 characters)
  - values of 100 Pa and more for the saturated vapour pressure are replaced by 0.000 in Efate screen of PRZM shell without notice. When the user does not check the screens in the PRZM shell, but immediately presses the Write button, the value of > 100 Pa is maintained and PRZM will crash.

Installing FOCUS_SWASH

The complete installation procedure of the SWASH software package include five steps, in which the four software programs of SWASH, MACRO, PRZM and TOXSWA are installed. Below the first two steps are explained, for more details please refer to the read_me_first text file in the SWASH zip file.

Please note that **SWASH** should **ALWAYS** be installed **FIRST**, so before the installation of one of the other models. In case you did not install MACRO, PRZM and TOXSWA afterwards, SWASH will start up with error messages about missing databases etc, but still work for the installed models.

We can only garantuee a proper functioning of the entire package, if you install all applications on the default directory. The default directory for SWASH is C:\SWASH.

Step 1 :
Checking regional settings (for MACRO) :

- Check that a default national setting, without any changes to it, has been selected on your machine. E.g. do not select 'Swedish', and then change the number format from the default decimal comma to the decimal point. (Select My computer, Control panel, Regional options, Numbers to check.)

Step 2:
SWASH installation procedure :

- If necessary, uninstall previous versions of SWASH from your machine
- Download the SWASH.zip file
- Extract all files to some temporary directory at your local machine
- Run the setup.exe program and follow the on screen instructions
- SWASH can now be started from the Start menu

Technical Support

The SWASH User Interface contains a Help button, which gives detailed information about many aspects.

A (draft) user manual as well as a report on technical aspects of SWASH is provided at:
www.pesticides.alterra.nl (select Research Themes, Fate Surface water).

If you suffer from installation problems with TOXSWA under SWASH, send an e-mail to: j.a.teroller@wisl.nl

Excerpt of existing model documentation related to FOCUS Surface Water

Berg, F. van den, P.I. Adriaanse, J.A. te Roller, 2002. Surface WAter Scenarios Help (SWASH), version 1.9. User's Guide version 1.2, Alterra-rapport 507, Wageningen, the Netherlands.

FOCUS, 2001. (Linders, J., P.I. Adriaanse, R. Allen, E. Capri, V. Gouy, J. Hollis, N. Jarvis, M. Klein, P. Lolos, W-M Maier, S. Maund, C. Pais, M.H. Russell, J-L Teixeira, S.Vizantinopoulos and D. Yon). FOCUS Surface Water Scenarios in the EU Evaluation Process under 91/414/EEC. Report of the FOCUS Working Group on Surface Water Scenarios, EC Document Reference SANCO/4802/2001, draft February 2003, 221 pp.

Roller, J.A. te, F. van den Berg, P.I. Adriaanse, 2002. Surface WAter Scenarios Help (SWASH), version 1.9. Technical report version 1.2, Alterra-rapport 508, Wageningen, the Netherlands.
