

SWAT+ Editor

SWAT+ Editor is an interface that allows:

- importing a project from GIS,
- modifying SWAT+ input,
- writing the text files, and
- running the model

Differences from SWAT2012 Editor

- Written in Python
 - Source code repository available
- SQLite database instead of MS Access
 - Designed to closely resemble the SWAT+ ASCII text files
 - Table names match text file names
 - Column names match Fortran variable names
 - Use of table relationships for data integrity
 - Will provide SQLite version of “SWAT2012.mdb” updated for SWAT+ as well as soils and wgn databases

View the SQLite database

The screenshot shows a database management interface with a table containing 16 rows. The columns are: id, name, topo_id, hyd_id, soil_id, land_use_mgt_id, soil_nutr_init_id, surf_stor, snow_id, and field. The first row has values: 1, hru1, 334, 1, 26, 1, 1, NULL, NULL, NULL. A context menu is open over the 'soil_id' cell of the first row, listing actions like 'Erase values', 'Set NULL values', 'Edit value in editor', 'Go to referenced row in table 'soils_sol'', 'Generate query for selected cells', 'Copy', 'Paste', 'Tabs on top', and 'Tabs at bottom'. A blue arrow points from the 'Go to referenced row in table 'soils_sol'' option to a table below.

	id	name	hydgrp	zmx	anion_excl	crk	texture	desc
1	26	Podzols	C	570	0.5	0.5	SANDY_CLAY_LOAM	NULL

File

Project Setup

Simulation

Climate

Connections

Routing Units

Channels

Reservoirs

Aquifers

HRUs

Management

Databases

Write Files

Run SWAT+

Help

Load Existing Project

Create a New Project

Create a new SWAT+ Editor project by selecting your SWAT+ databases and type of model you would like to run.

The **project database** is a SQLite representation of SWAT+ input files. This database is created for SWAT+ Editor or other SWAT+ interfaces. Leave this field blank if you do not have one: it will be created for you.

The **GIS database** is created for you in QSWAT+ or ArcSWAT+. If you want to start a new SWAT+ project from scratch, leave this field blank.

The **SWAT+ datasets database** is required. It may be downloaded from the SWAT website if you do not have it.

Project settings

Project name

Project database

Browse

GIS database

Browse

SWAT+ datasets

F:\SWATPlus\dist\swatplus\data\example-project\swatplus_datasets.sqlite

Browse

Choose a model SWAT+ SWAT+ lite

Save settings and start editing

Weather Generator

Weather Stations

Import observed weather data

Directory containing weather data

Browse...

Select data format... ▾

Import data

Stations

Select a station... ▾

or add a new station

Add

	Simulated	Observed	Observed data file	
Precipitation	<input type="radio"/>	<input type="radio"/>	<input type="text"/>	View
Temperature	<input type="radio"/>	<input type="radio"/>	<input type="text"/>	View
Solar radiation	<input type="radio"/>	<input type="radio"/>	<input type="text"/>	View
Relative humidity	<input type="radio"/>	<input type="radio"/>	<input type="text"/>	View
Wind speed	<input type="radio"/>	<input type="radio"/>	<input type="text"/>	View
Wind direction	<input type="radio"/>	<input type="radio"/>	<input type="text"/>	View
Atmospheric deposition	<input type="radio"/>	<input type="radio"/>	<input type="text"/>	View

Select a weather generator to use for simulated data at this weather station:

Select wgn... ▾

Save changes

Import weather files in:
 SWAT+ text files
 SWAT2012 text files
 ...more possibilities in the future such as netcdf