

# SWAT Calibration and Uncertainty Procedures (SWAT-CUP)

The screenshot displays the SWAT-CUP software interface. The title bar indicates the current file is 'Par\_inf.sf2 - SWAT-CUP'. The ribbon menu includes 'Home' and 'Layout' tabs, with sub-sections for 'Edit' (Paste, Cut, Copy, Delete, Undo, Redo, Select All), 'Calibration' (Execute..., Save Iteration), and 'Help' (Help, User Manual, About). The Project Explorer on the left shows a tree structure with 'Calibration Inputs' (Par\_inf.sf2, Observed.sf2, Var\_file\_rch.sf2, SUFI2\_extract\_rch.def, SUFI2\_replace.def), 'Calibration Outputs' (95ppu.sf2, New\_pars.sf2), 'Executable Files', and 'Iteration History'. The main window displays the 'Par\_inf.sf2' file, which is a 'Sufi2 parameters information' file. It shows the following test case parameters:

Test\_Case

Number\_of\_Parameters= 4  
Number\_of\_LH\_sims= 5

1	r__CN2.mgt	-0.77	0.77
2	v__ALPHA_BF.gw	0.02	0.078
3	v__GW_DELAY.gw	31.0	43.0
4	v__CH_N2.rte	-0.02	0.07

SWAT-CUP

SUFI-2

GLUE

ParaSol

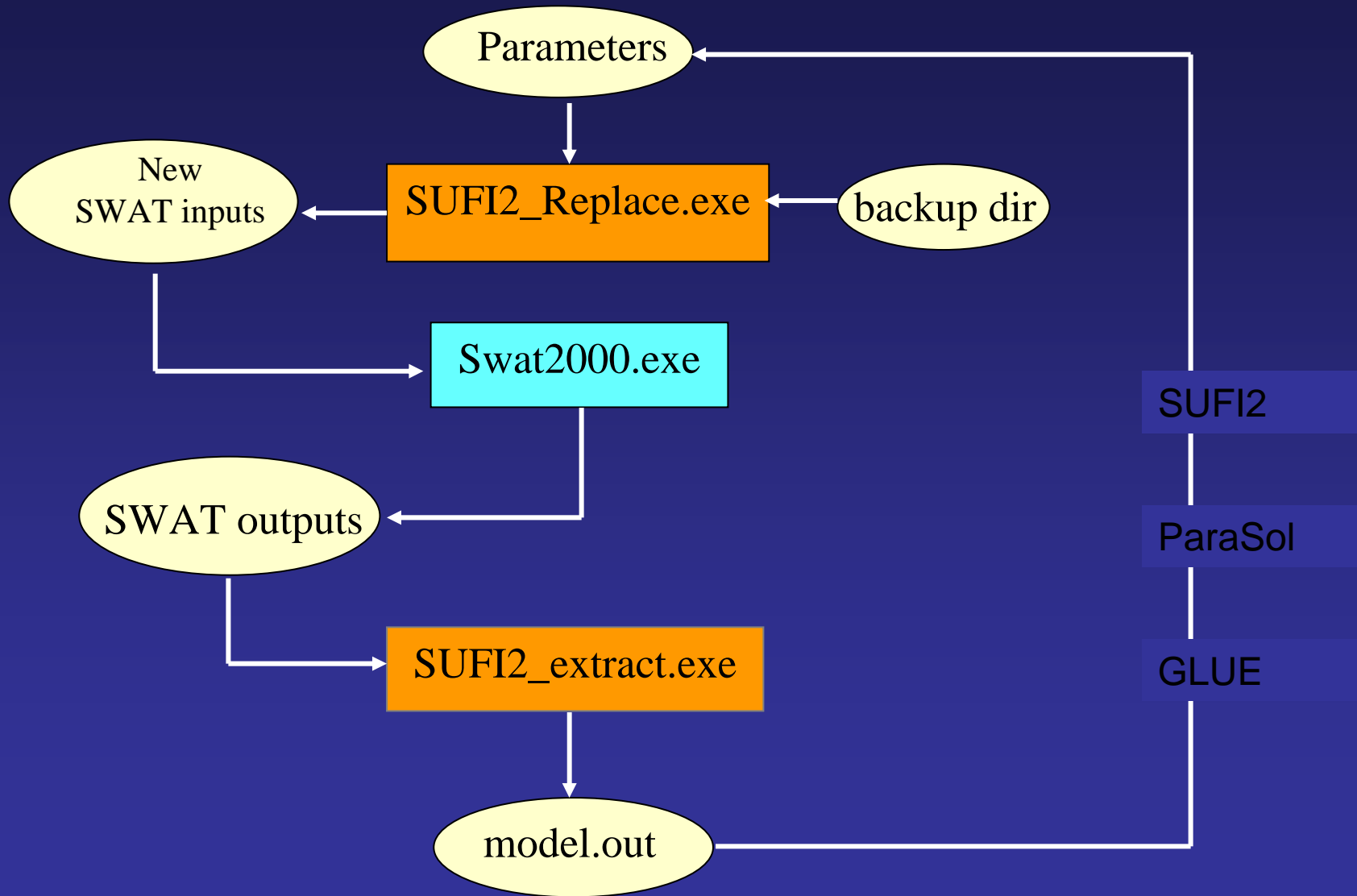
MCMC

.....

iSWAT

SWAT  
(txtinout)

# iSWAT Interface



# Parameterization

x\_\_<parname>.<ext>\_\_<hydrogrp>\_\_<soltext>\_\_<landuse>\_\_<subbsn>

Where

v – means the existing parameter value is replaced by a given value,

a – means the given value is added to the existing parameter value, and

r– means the existing parameter value is multiplied by (1+the given value);

# Interface input file

r__K.sol	0.1	0.5
r__K.sol_____2,4,6,12,37	0.10	0.55
r__K.sol__A__LOAM__ WWHT__1-5	0.1	0.5
r_K.sol_____LOAM__1,2-8,15	0.1	0.5
..		