

subassX.txt

This is a file with an assessment of each subbasin's performance. The file is located in the [resultdir](#) folder. One file is printed for each [performance criterion](#) included in the objective function given in [info.txt](#). X is the ordinal number of the performance criterion and the subbasin assessment is calculated for the same variables as that performance criterion. If more than nine criteria are included, the following are denoted by capital letters. Definitions of equations for calculating the criteria is found [here](#).

When ensemble or sequence simulations are made, the results from simulations ($l=1 \dots n$ or $l=\text{sequence number}>0$) are written to files named subassX_00l.txt, where n is defined by num_ens in [optpar.txt](#).

For the calculation of criterion for lake water stage, the combination of variables wcom and wstr are exchanged for the internal variables clwc and clws by the program. These variables are the water stages cleaned from w0ref reference level ($clwc=wcom-w0ref$, $clws=wstr-w0ref$). This makes the criterion calculation more accurate, but note that relative criteria, e.g. relative bias, are relative to the smaller cleaned water stage level.

The first row defines average period (0=timesteply, 1=daily, 2=weekly, 3=monthly, 4=yearly) used for calculation. This period corresponds to the setting meanperiod in [info.txt](#). Variable names and unit are also listed on row one. The second row is column headings. Thereafter follow subbasins which has observations, one on each row. The data limitation is the same as that of the calibration criteria. Missing values are indicated as -9999.

The columns:

Header	Unit	Description
SUBID	-	subbasin id (as defined in GeoData.txt)
NSE	-	Nash-Sutcliffe efficiency
CC	-	Pearson correlation coefficient (part 1 of Kling-Gupta efficiency)
RE (%)	%	relative bias in mean
RSDE (%)	%	relative bias in standard deviation
Sim	<i>in first row</i>	mean of simulated variable
Rec	<i>in first row</i>	mean of observed variable
SDSim	<i>in first row</i>	standard deviation of simulated variable
SDRec	<i>in first row</i>	standard deviation of observed variable
MAE	<i>in first row</i>	mean absolute error
RMSE	<i>in first row</i>	root mean square error
Bias	<i>in first row</i>	bias
SDE	<i>in first row</i>	bias of standard deviation
KGE	-	Kling-Gupta efficiency
KGESD	-	part 2 of Kling-Gupta efficiency (std-quotient)
KGEM	-	part 3 of Kling-Gupta efficiency (mean-quotient)
NRMSE	<i>in first row</i>	normalised root mean square error
NSEW	-	Nash-Sutcliffe efficiency adjusted for bias

Example of subass1.txt:

Subbasin assessment. Criteria is calculated for period 1. Variables: rout, cout Unit: m3/s									
SUBID	NSE	CC	RE(%)	RSDE(%)	Sim	Rec	SDSim	SDRec	MAE
RMSE	Bias	SDE	KGE	KGESD	KGEM	NRMSE			
112	0.507	0.721	22.649	-68.38	0.058	0.047	0.068	0.1	
	0.038	0.07	0.011	-0.032	0.518	0.678	1.226	0.066	
135	0.722	0.881	-20.802	0.398	0.308	0.389	0.409	0.407	
	0.146	0.214	-0.081	0.002	0.76	1.004	0.792	0.075	