

# 1 Summary

The scmreport script is used for summarizing the results of an scm or scmplus run. The examples below show output for an scmplus run. The output of scmreport is a summary of the contents of the scm log file. NONMEM output files are not parsed.

## 2 Output with default settings

```
scmreport run11.scm
```

Model	N_test	N_ok	N_localmin	N_failed	StepSelected	StepStashed	StepReadded	BackstepRemoved
CLAPGR-2	4	2	2	0	–	1	3	–
CLCV1-2	2	2	0	0	3	1	3	2
CLWGT-2	2	2	0	0	2	–	–	3
VCV2-2	3	3	0	0	4	1	3	1
VCVD1-2	4	3	1	0	–	1	3	–
VWGT-2	1	1	0	0	1	–	–	–

### Model

The name of the model in the scm log file, which is composed of the parameter, covariate and state number.

### N\_test

The number of times, i.e. in how many iterations, the parameter-covariate relation has been tested.

### N\_ok

How many times, out of N\_test, does the scm log file list an ofv that such that extended model has lower ofv than the base model?

### N\_localmin

How many times, out of N\_test, did the run end in a local minimum, i.e. the log file lists a higher ofv for the extended model than for the base model?

### N\_failed

How many times, out of N\_test, did the scm log file state that the model failed?

### StepSelected

In which forward step, if any, was the parameter-covariate relation selected?

### StepStashed

Only for scmplus: In which forward step, if any, was the parameter-covariate relation stashed, i.e. removed from the set of relations tested again?

### StepReadded

Only for scmplus: In which forward step, if any, was a previously stashed parameter-covariate relation retested?

### BackstepRemoved

Both for scm and scmplus: In which backward step, if any, was a previously selected parameter-covariate relation removed?



### 3 Output with option -ofv\_table

```
scmreport run11.scm -ofv
```

Step	covariate	parameter	state	BASEOFV	NEWOFV	OFVDROP	dDF	PVALrun	pvalue
Forward 1	WGT	V	2	725.60200	685.37770	40.22430	1	2.26e-10	0.05
Forward 2	WGT	CL	2	685.37770	663.09532	22.28238	1	0.000002	0.05
Forward 3	CV1	CL	2	663.09532	653.70237	9.39295	1	0.002178	0.05
Forward 4	CV2	V	2	653.70237	647.68823	6.01414	1	0.014192	0.05
Forward 5				-	-	-		-	
Backward 1	CV2	V	1	647.68823	648.16473	-0.47650	-1	0.490010	0.01
Backward 2	CV1	CL	1	648.16473	643.42136	4.74337	-1	9999	0.01
Backward 3	WGT	CL	1	643.42136	648.26975	-4.84839	-1	0.027672	0.01
Backward 4				-	-	-		-	
Final included	WGT	V	2	648.26975	749.50873	-101.23898	-1	8.15e-24	

#### Step

The search direction and the step number in that direction. The last rows list the included relations at the end of the scm or scmplus run.

#### covariate

The name of the covariate.

#### parameter

The name of the parameter.

#### state

The scm state number.

#### BASEOFV

Base ofv as read from the scm log file for the step.

#### NEWOFV

New ofv for the selected model as read from the scm log file for the step.

#### OFVDROP

Drop between BASEOFV and NEWOFV as read from the scm log file.

#### dDF

The change in degrees of freedom when going from base model to new model.

#### PVALrun

The actual p-value, computed based on change in ofv, for choosing the extended model. In a forward step the new model is the extended model and in a backward step the base model is the extended model.

#### pvalue

The p-value cutoff for selecting/excluding a relation as read from the scm log file.



## 4 Input and options

### 4.1 Required input

The name of an scm or scmplus run directory is a required argument.

### 4.2 Optional input

**-ofv\_table**

Show ofv etc for selected relations, instead of the default which is a summary of all tested relations.

**-decimals =  $N$**

Only used in combination with option -ofv\_table. Number of decimals to display for OFV columns. Default is 5.

**-toR**

Print results as data frame code. Default not set.

**-logfile**

Name of scm logfile in the directory. Default is the name of the logfile in version\_and\_option\_info.txt, so normally this option is only needed if version\_and\_option\_info.txt is not present, or if the entire folder has been moved so that version\_and\_option\_info.txt cannot be used.

**-help**

Print help text and exit.

**-version**

Print version information and exit.