

# 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
CLAGE-5	6	6	0	0	-	3	7	-
CLCRCL-5	2	2	0	0	2	-	-	-
CLDOSE-2	3	3	0	0	3	-	-	-
CLQUAT-2	4	4	0	0	-	1	7	-
CLRACE-2	4	4	0	0	4	-	-	3
CLSEX-2	2	2	0	0	7	1	7	-
KMAGE-5	4	4	0	0	-	1	7	-
KMQUAT-2	4	4	0	0	-	1	7	-
KMRACE-2	4	4	0	0	-	1	7	-
KMSEX-2	4	4	0	0	-	1	7	-
V1AGE-5	4	4	0	0	-	1	7	-
V1DOSE-2	4	4	0	0	-	1	7	-
V1QUAT-2	4	4	0	0	-	1	7	-
V1RACE-2	8	8	0	0	-	5	7	-
V1SEX-2	1	1	0	0	1	-	-	-
V2AGE-5	4	4	0	0	-	1	7	-
V2DOSE-2	7	7	0	0	-	4	7	-
V2QUAT-2	5	5	0	0	5	-	-	2
V2RACE-2	4	4	0	0	-	1	7	-
V2SEX-2	5	5	0	0	-	2	7	-
VMAGE-5	4	4	0	0	-	1	7	-
VMQUAT-2	3	3	0	0	8	1	7	1
VMRACE-2	4	4	0	0	-	1	7	-
VMSEX-2	4	4	0	0	-	1	7	-

### 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	pvalue
Forward 1	SEX	V1	2	-10610.81224	-10679.13889	68.32665	0.01
Forward 2	CRCL	CL	5	-10679.13889	-10702.00697	22.86808	0.01
Forward 3	DOSE	CL	2	-10702.00697	-10721.34202	19.33506	0.01
Forward 4	RACE	CL	2	-10721.34202	-10736.86380	15.52178	0.01
Forward 5	QUAT	V2	2	-10736.86380	-10744.14780	7.28400	0.01
Forward 6				-	-	-	-
Forward 7	SEX	CL	2	-10744.14780	-10809.78278	65.63498	0.01
Forward 8	QUAT	VM	2	-10809.78278	-10816.90670	7.12392	0.01
Forward 9				-	-	-	-
Backward 1	QUAT	VM	1	-10816.90670	-10810.62442	-6.28228	0.0001
Backward 2	QUAT	V2	1	-10810.62442	-10802.97823	-7.64619	0.0001
Backward 3	RACE	CL	1	-10802.97823	-10782.58130	-20.39694	0.0001
Backward 4				-	-	-	-
Final included	CRCL	CL	5	-	-	-	-
Final included	DOSE	CL	2	-	-	-	-
Final included	SEX	CL	2	-	-	-	-
Final included	SEX	V1	2	-	-	-	-

**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.

**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.