

NONMEM

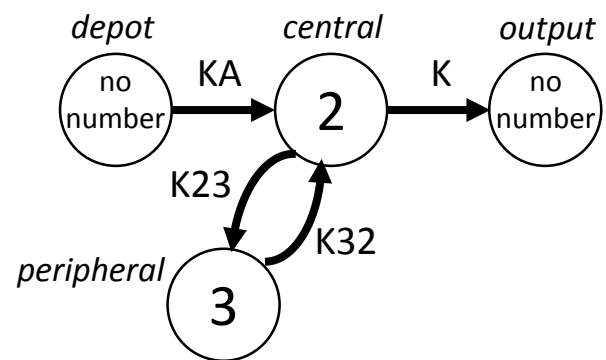
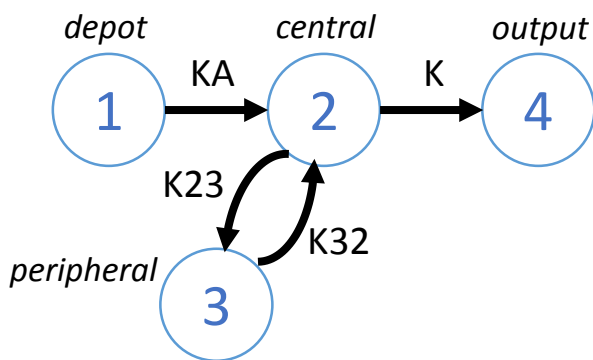
MonolixSuite

Data set formatting:

ID	TIME	AMT	DV	CMT
1	0	10	.	1
1	1	.	3.5	2
1	1.05	.	50.1	3
1	5	.	2.1	2
1	5.04	.	60.3	3

ID	TIME	AMT	ADM	Y	YTYPE
1	0	10	1	.	.
1	1	.	.	3.5	1
1	1.05	.	.	50.1	2
1	5	.	.	2.1	1
1	5.04	.	.	60.3	2

Model scheme:



Control stream/model file:

```
$PROB 1st-order abs., linear elim., peripheral comp.  
$INPUT ID TIME AMT DV CMT  
$DATA datafile.csv  
$SUBROUTINE ADVAN4 TRANS1 TOL=5
```

```
$PK  
V =THETA(1) * EXP(ETA(1))  
K =THETA(2) * EXP(ETA(2))  
K23 =THETA(3)  
K32 =THETA(4)  
KA =THETA(5)  
S3 =THETA(6)  
S2 =V
```

```
$THETA  
(10) ;THETA_V  
(0.01) ;THETA_K  
(0.01) ;THETA_K23  
(0.01) ;THETA_K32  
(0.1) ;THETA_KA  
(5) ;THETA_S2  
$OMEGA 0.5 ; ETA_V  
$OMEGA 1 ; ETA_K  
$SIGMA 1
```

```
$ERROR  
Y=F+ERR(1)
```

```
$EST METHOD=SAEM NBURN=2000 NITER=1000
```

DESCRIPTION: first-order absorption, linear elimination model, peripheral compartment

```
[LONGITUDINAL]  
input={KA, Vc, K, K23, K32, Vp}
```

PK:
compartment(cmt=2, volume=Vc, concentration=Cc)
peripheral(k23=K23, k32=K32, volume=Vp, concentration=Cp)
elimination(cmt=2, k=K)
oral(**type=1**, cmt=2, ka=KA)

Lines with ADM=1 correspond to administration macros with type=1

OUTPUT:
output={Cc,Cp}

Lines with YTYPE=1 correspond to the first output (here Cc)

+ parameter distributions, error model, initial values and correlations defined in the GUI