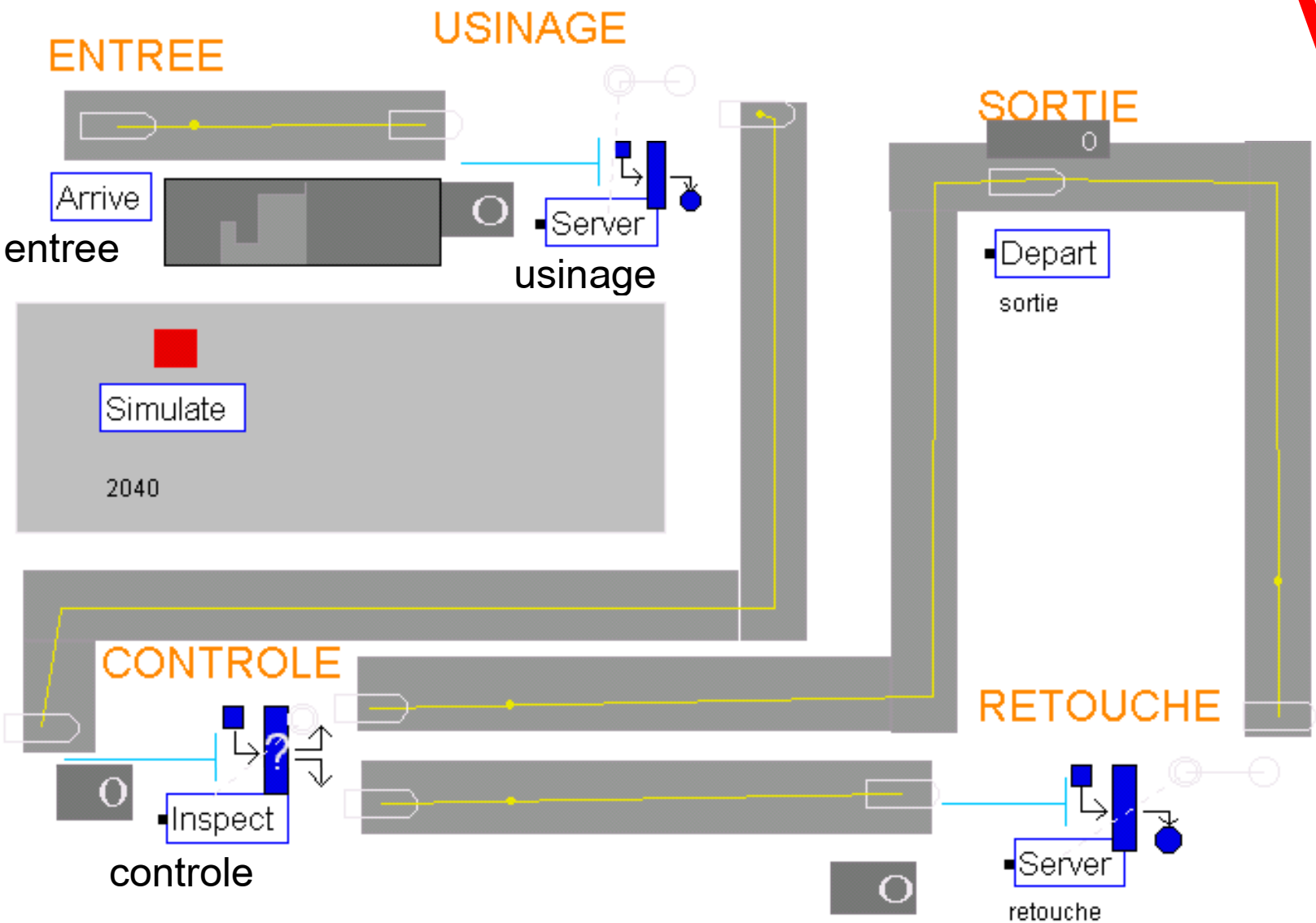
Atelierul de bază

V0



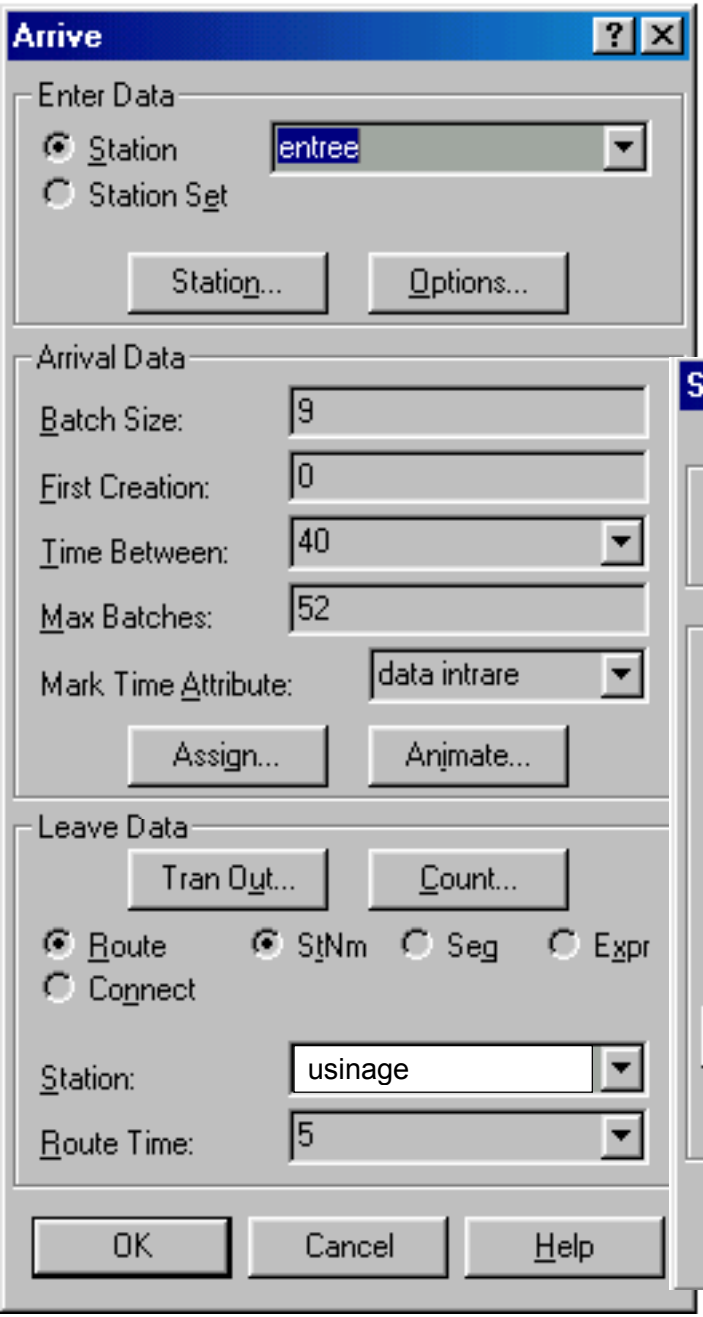
Piesele sosesc în loturi de câte 9 piese, la interval de 40 unități de timp.
Mărimea comenzii este de 468 piese 52 loturi

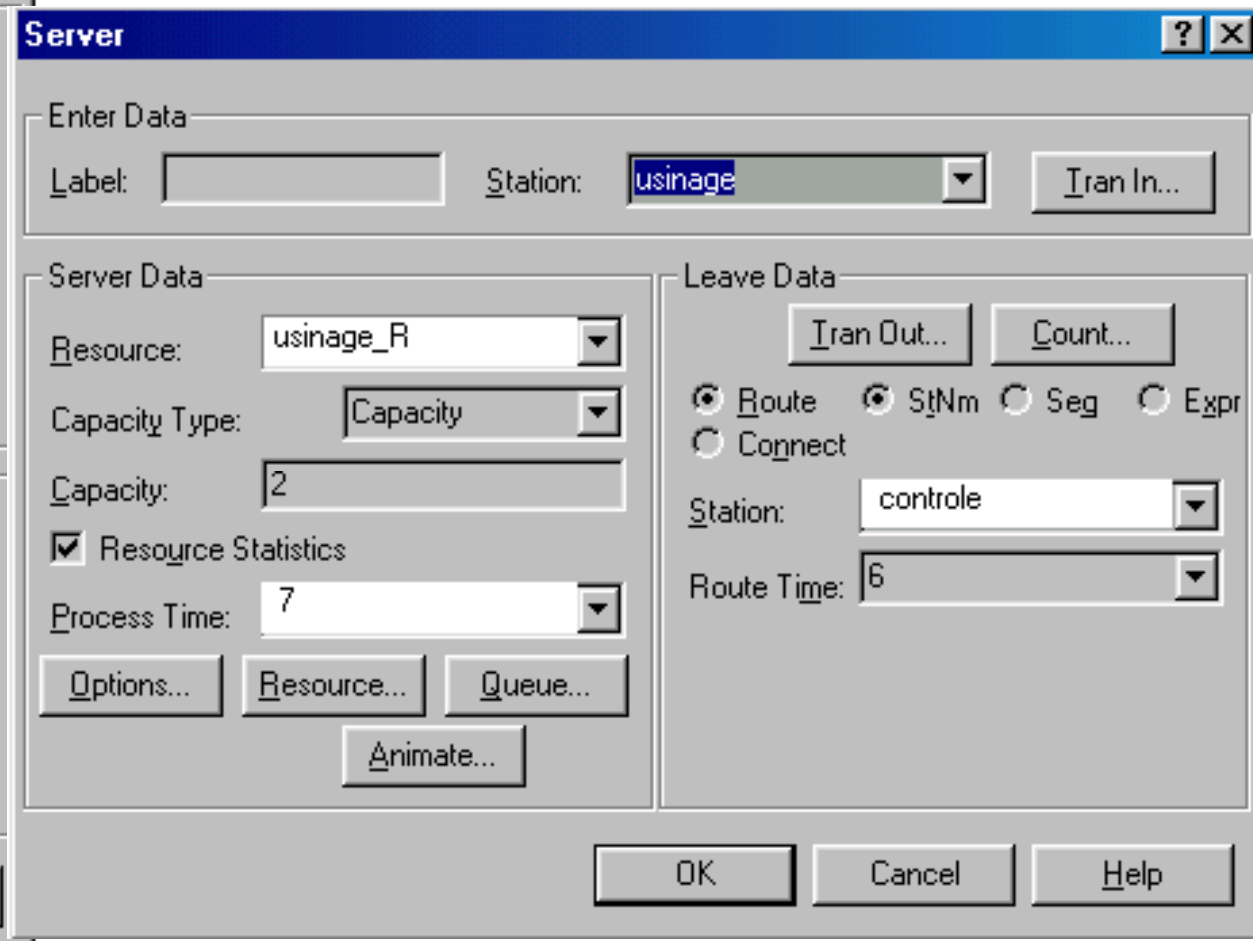
Durata prelucrării în stația "usinage" , care este dotată cu 2 maşini identice este de 7 unitati de timp.
Piesele sunt supuse unui control, în stația "controle" , operație care durează 4 unități de timp.

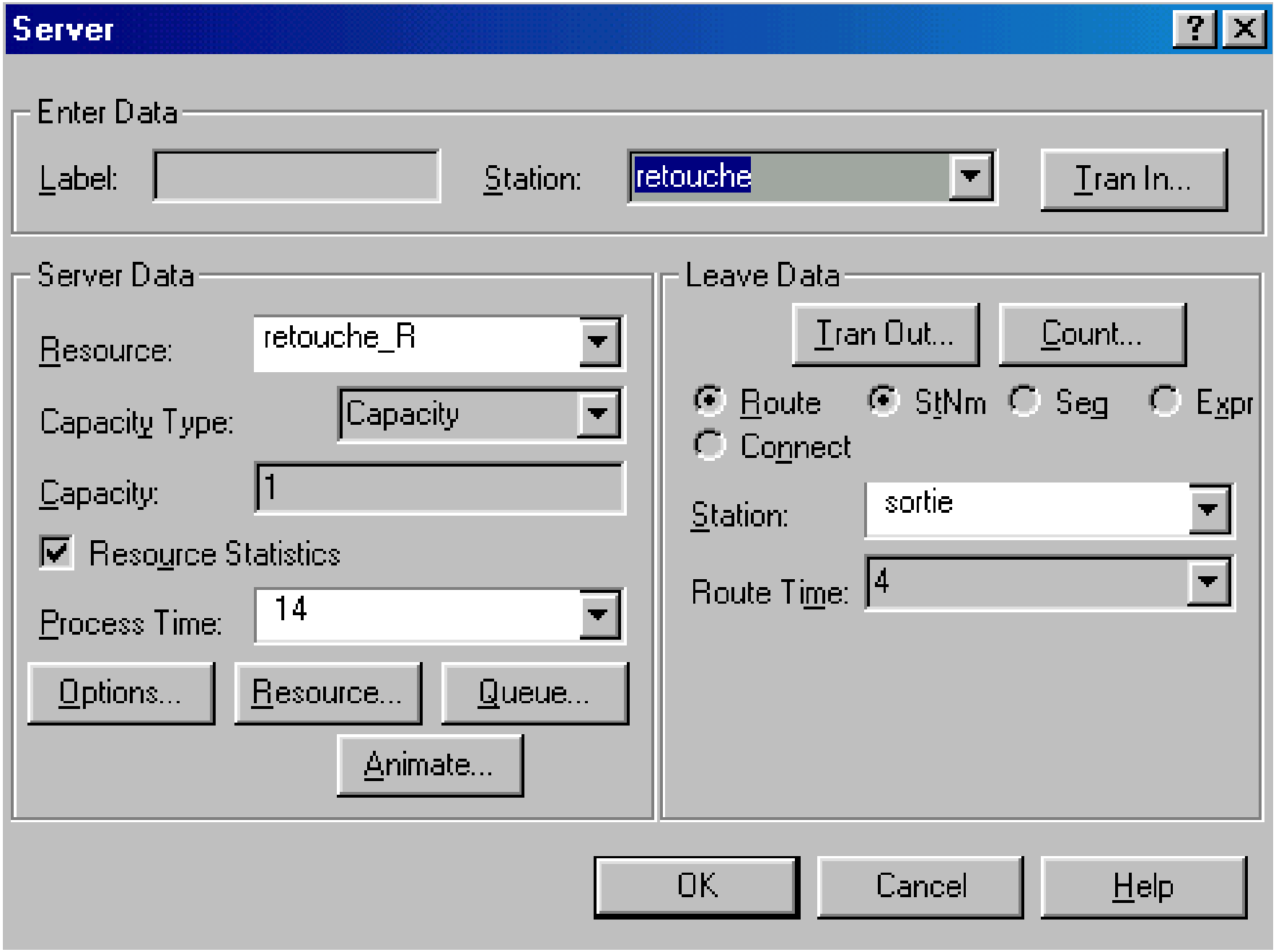
O parte din piese (40 %) necesită operații suplimentare de remediere, care se efectuează în stația "retuche" de către un singur operator. Durata este de 14 unități de timp/piesă.

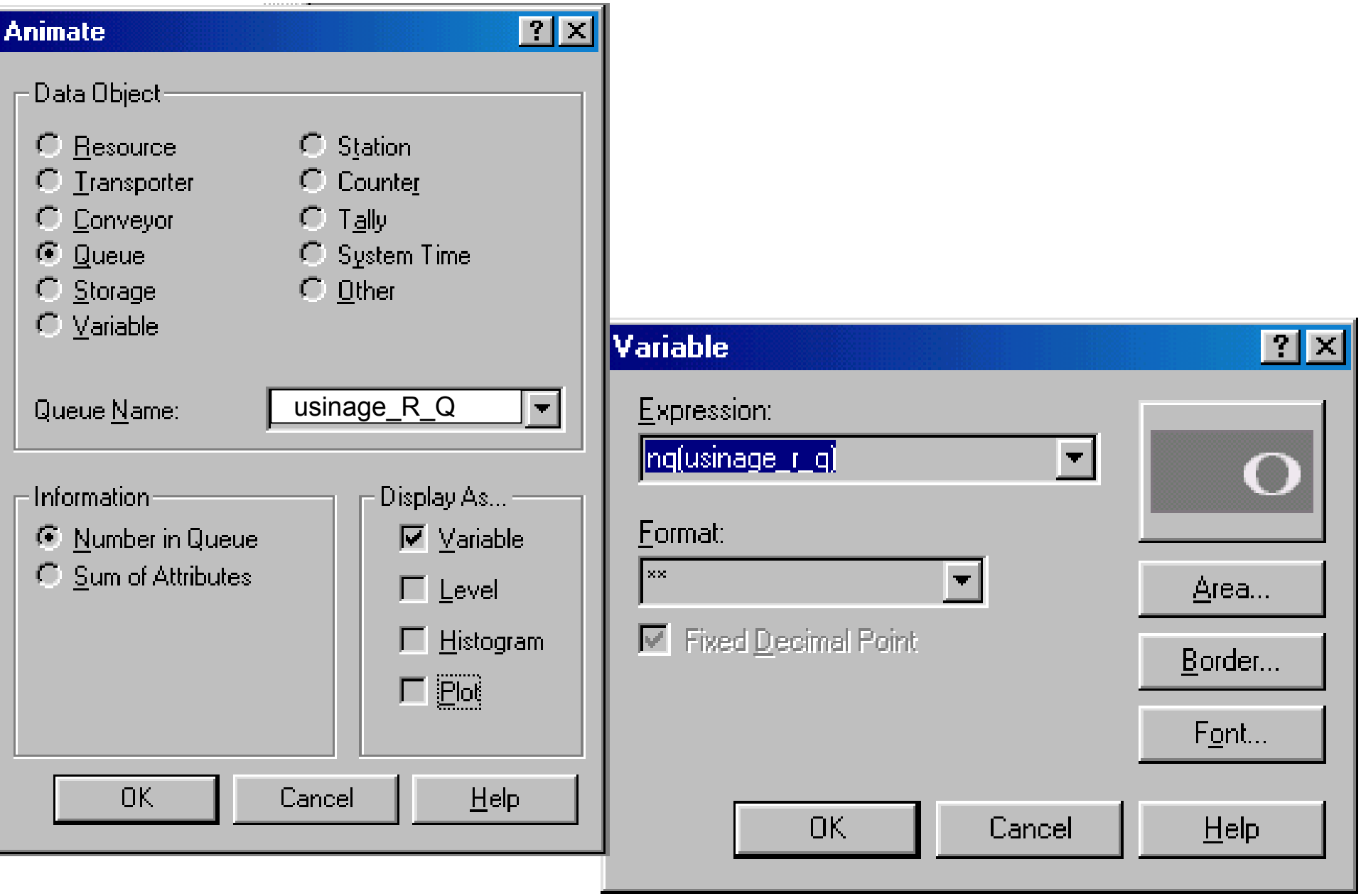
Timpii de transport între punctele de lucru sunt:

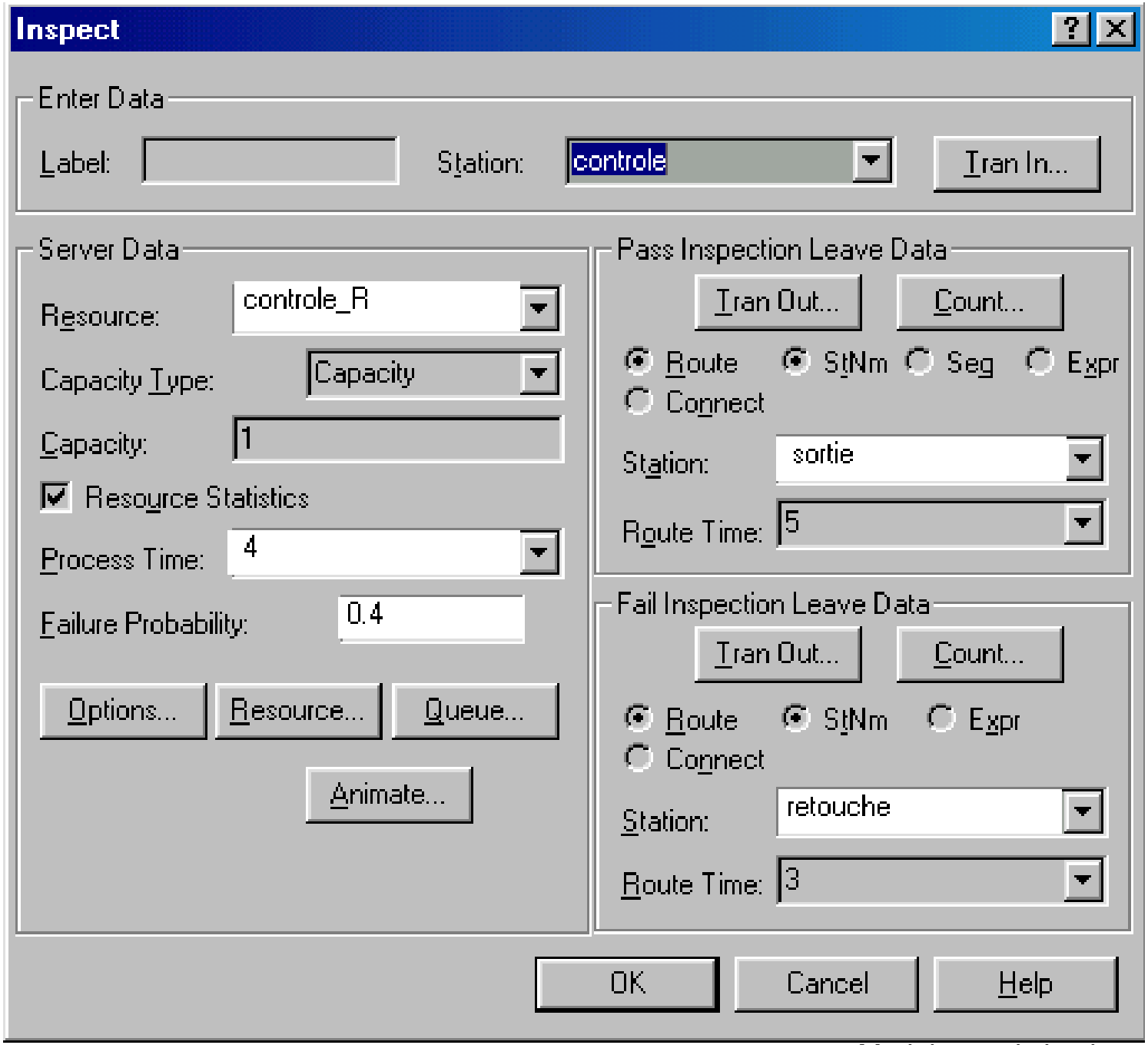
entree - usinage	usinage - controle	controle - sortie	controle - retouche	retouche - sortie
4	6	5	3	4

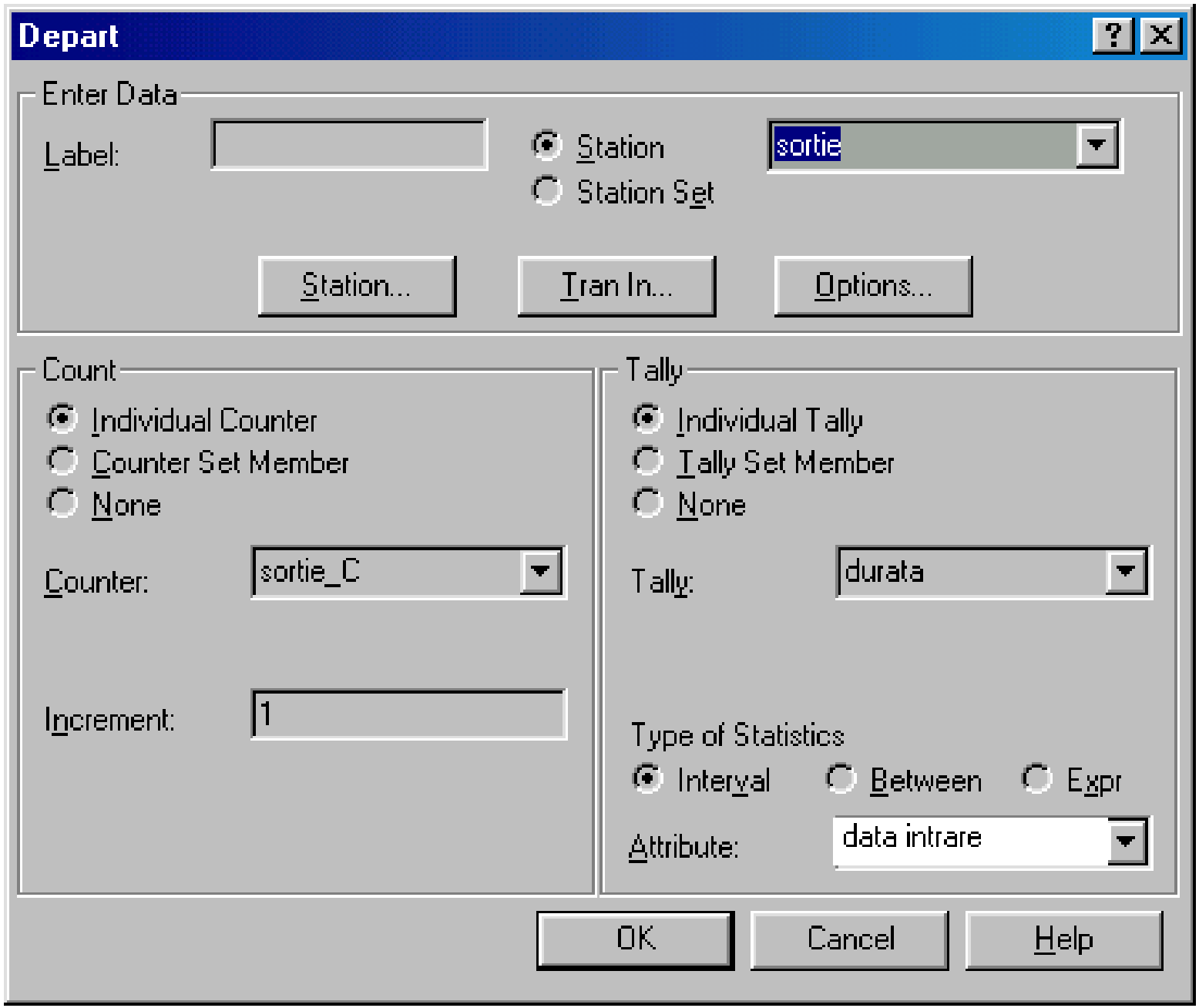

Arrive
Enter Data
Station
entree
Station Set
Station...
Options...
Arrival Data
Batch Size:
9
First Creation:
0
Time Between:
40
Max Batches:
52
Mark Time Attribute:
data intrare
Assign...
Animate...
Leave Data
Tran Out...
Count...
Route
StNm
Seg
Expr
Connect
Station:
usinage
Route Time:
5
OK
Cancel
Help


Server
Enter Data
Label:
Station:
usinage
Tran In...
Server Data
Resource:
usinage_R
Capacity Type:
Capacity
Capacity:
2
Resource Statistics
Process Time:
7
Options...
Resource...
Queue...
Animate...
Leave Data
Tran Out...
Count...
Route
StNm
Seg
Expr
Connect
Station:
controle
Route Time:
6
OK
Cancel
Help


Server
Enter Data
Label:
Station:
retouche
Tran In...
Server Data
Resource:
retouche_R
Capacity Type:
Capacity
Capacity:
1
Resource Statistics
Process Time:
14
Options...
Resource...
Queue...
Animate...
Leave Data
Tran Out...
Count...
Route
StNm
Seg
Expr
Connect
Station:
sortie
Route Time:
4
OK
Cancel
Help


Animate
Data Object
Resource
Transporter
Conveyor
Queue
Storage
Variable
Station
Counter
Tally
System Time
Other
Queue Name:
usinage_R_Q
Information
Number in Queue
Sum of Attributes
Display As...
Variable
Level
Histogram
Plot
OK
Cancel
Help
Variable
Expression:
nq(usinage_r_q)
Format:
**
Fixed Decimal Point
Area...
Border...
Font...
OK
Cancel
Help


Inspect
Enter Data
Label:
Station:
controle
Tran In...
Server Data
Resource:
controle_R
Capacity Type:
Capacity
Capacity:
1
Resource Statistics
Process Time:
4
Failure Probability:
0.4
Options...
Resource...
Queue...
Animate...
Pass Inspection Leave Data
Tran Out...
Count...
Route
StNm
Seg
Expr
Connect
Station:
sortie
Route Time:
5
Fail Inspection Leave Data
Tran Out...
Count...
Route
StNm
Expr
Connect
Station:
retouche
Route Time:
3
OK
Cancel
Help

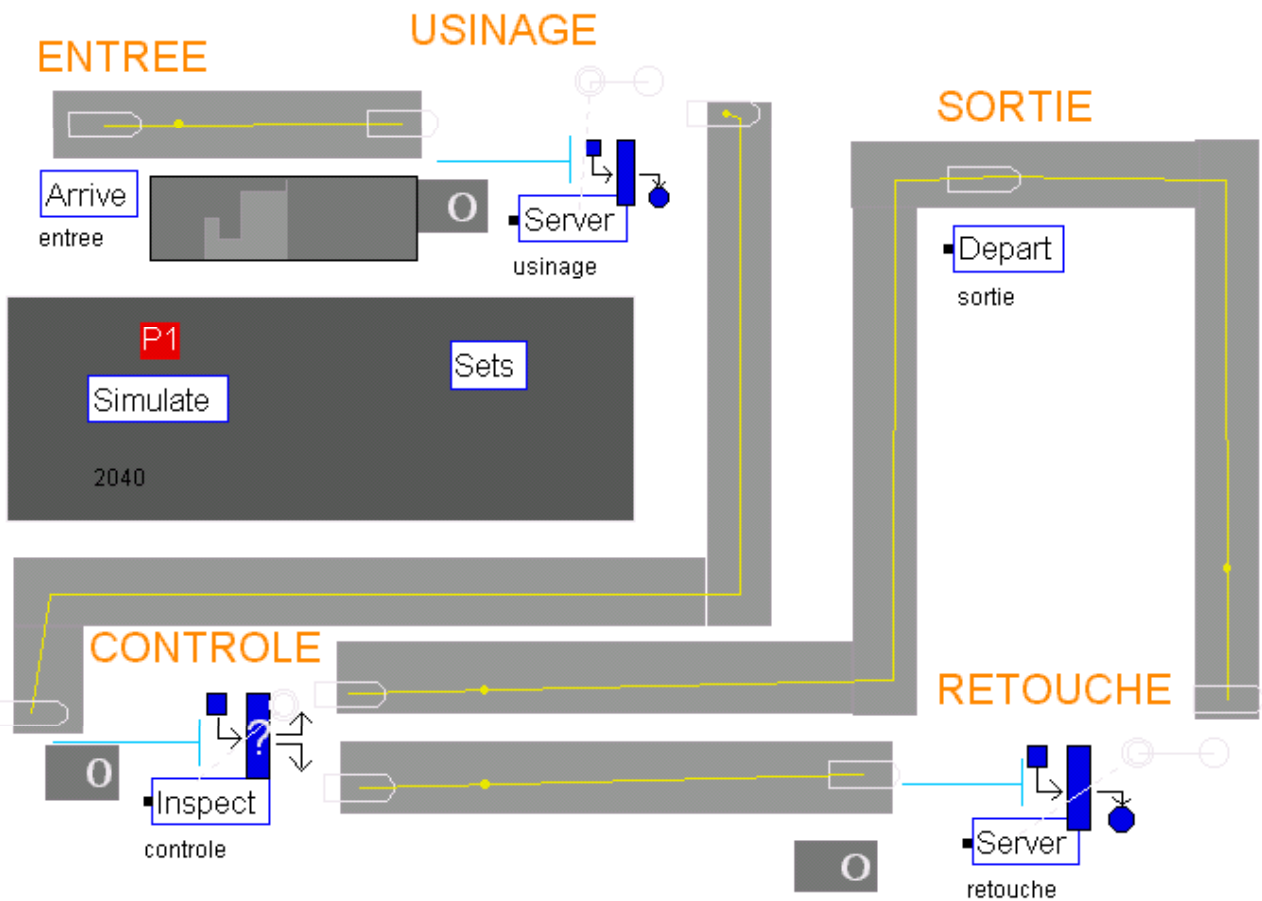

Depart
Enter Data
Label:
Station
Station Set
sortie
Station...
Tran In...
Options...
Count
Individual Counter
Counter Set Member
None
Counter:
sortie_C
Increment:
1
Tally
Individual Tally
Tally Set Member
None
Tally:
durata
Type of Statistics
Interval
Between
Expr
Attribute:
data intrare
OK
Cancel
Help

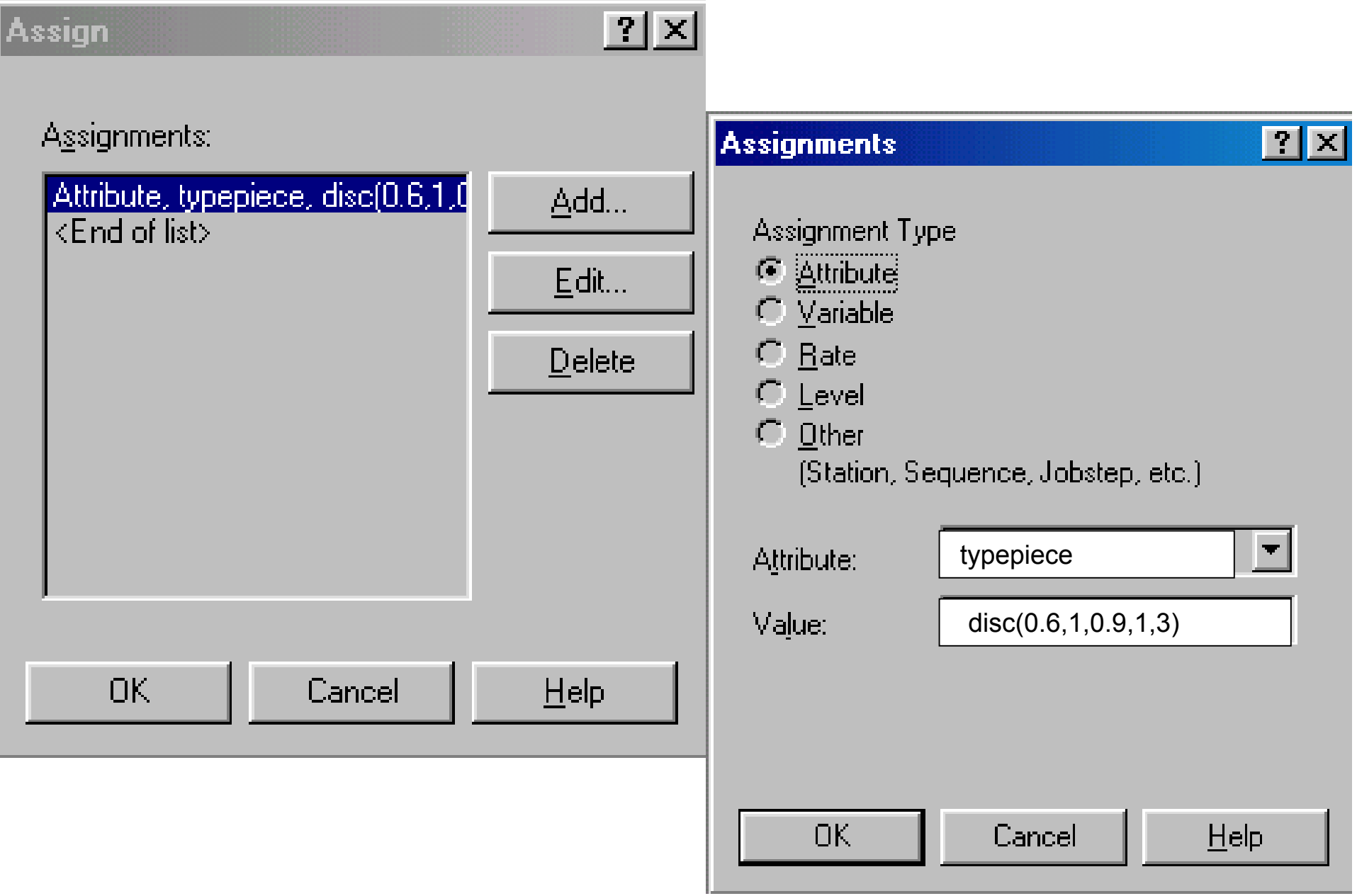
V1

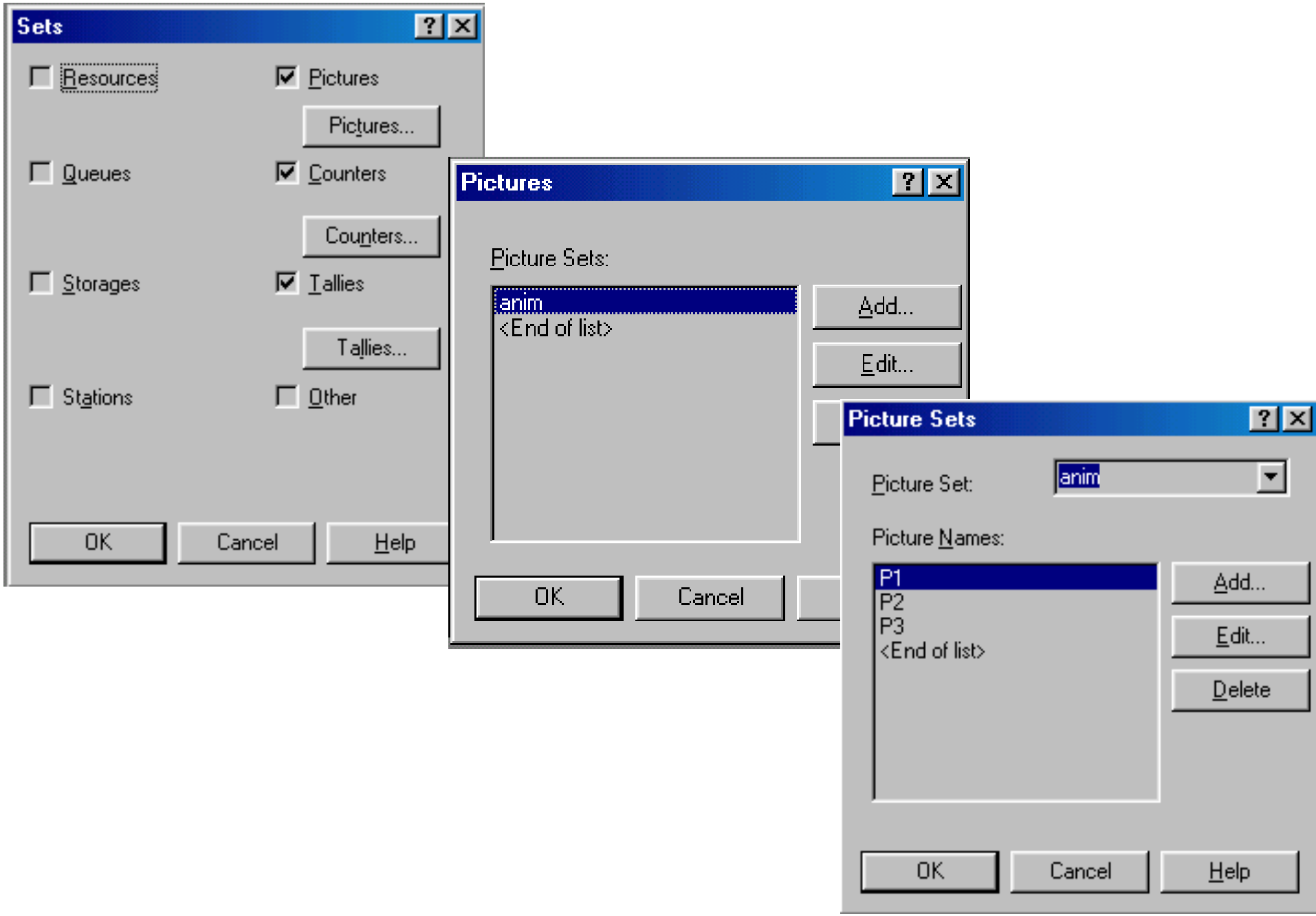
Se cosideră suplimentar că piesele sunt de trei tipuri:
60% tipul 1
30% tipul 2
10% tipul 3

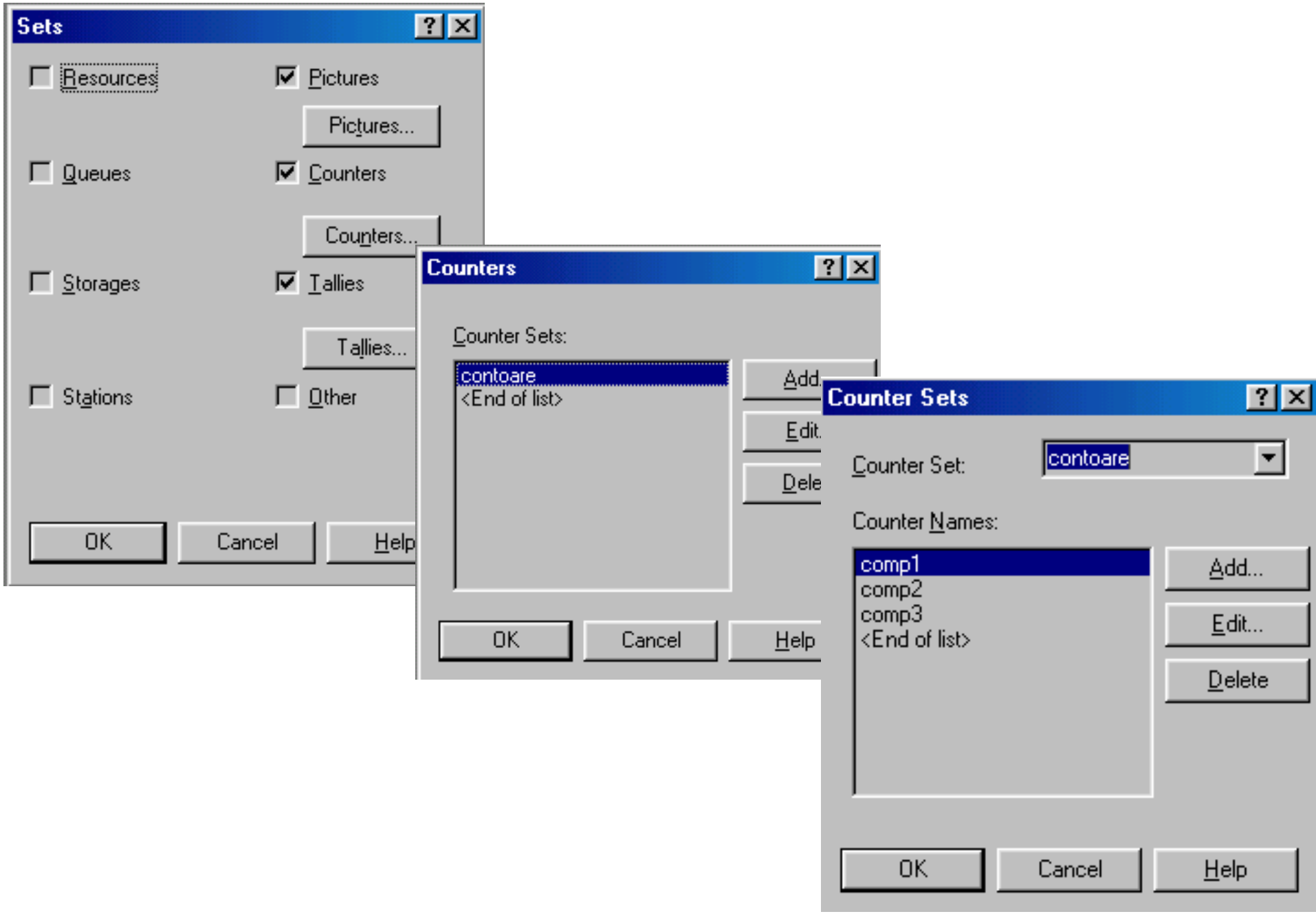
Se vor defini imagini diferite pentru fiecare tip de piesă precum şi un contor individual şi o variabilă proprie pentru durata ciclului de producție.
Pentru definirea tipului de piesă se foloseşte o distribuție de tip disc, cu urmatoarea sintaxă:
disc(0.6,1,0.9,2,1,3)

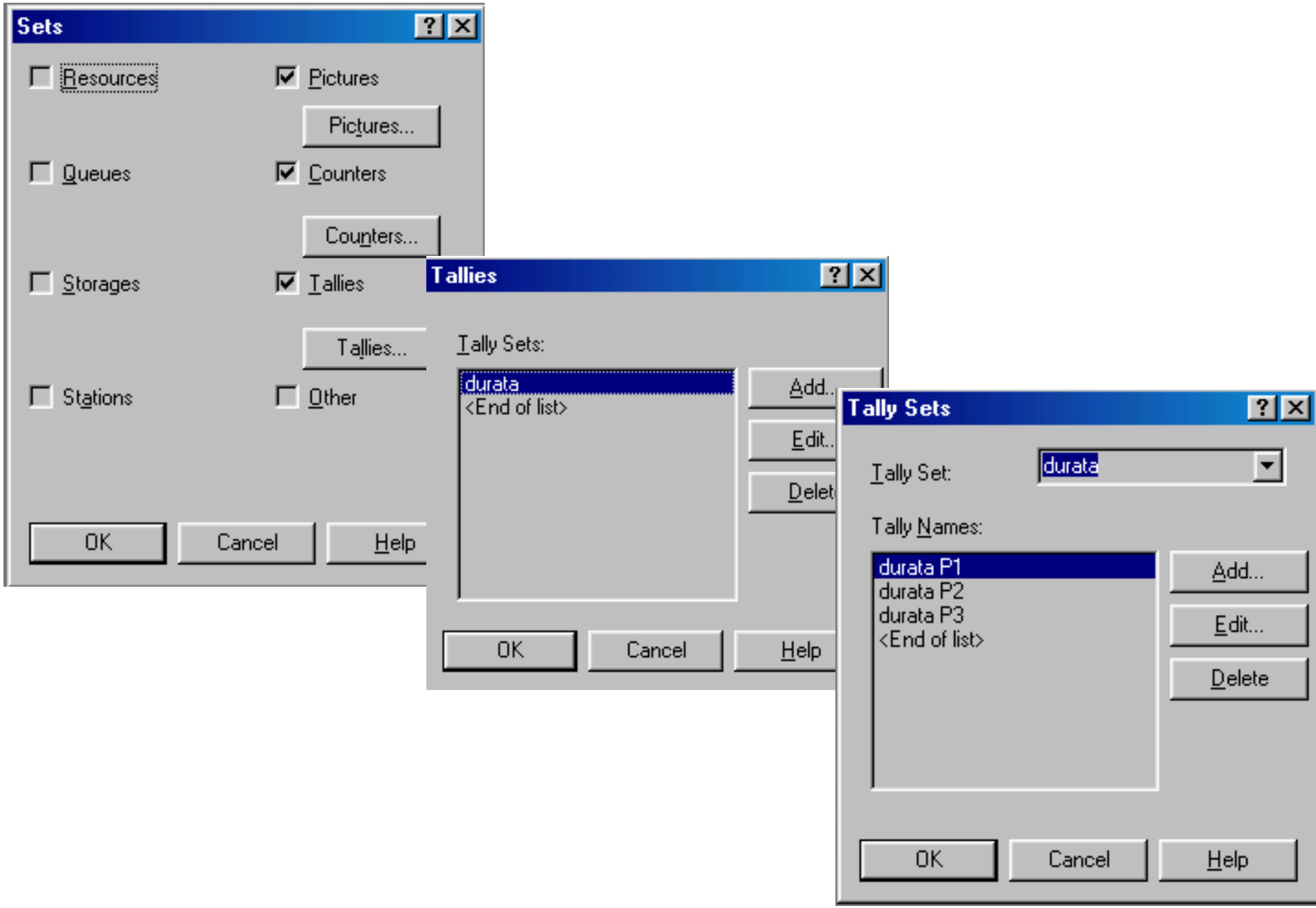
Pentru definirea imaginilor diferite pentru entități şi a contoarelor individuale se face apel la modulul **Sets**

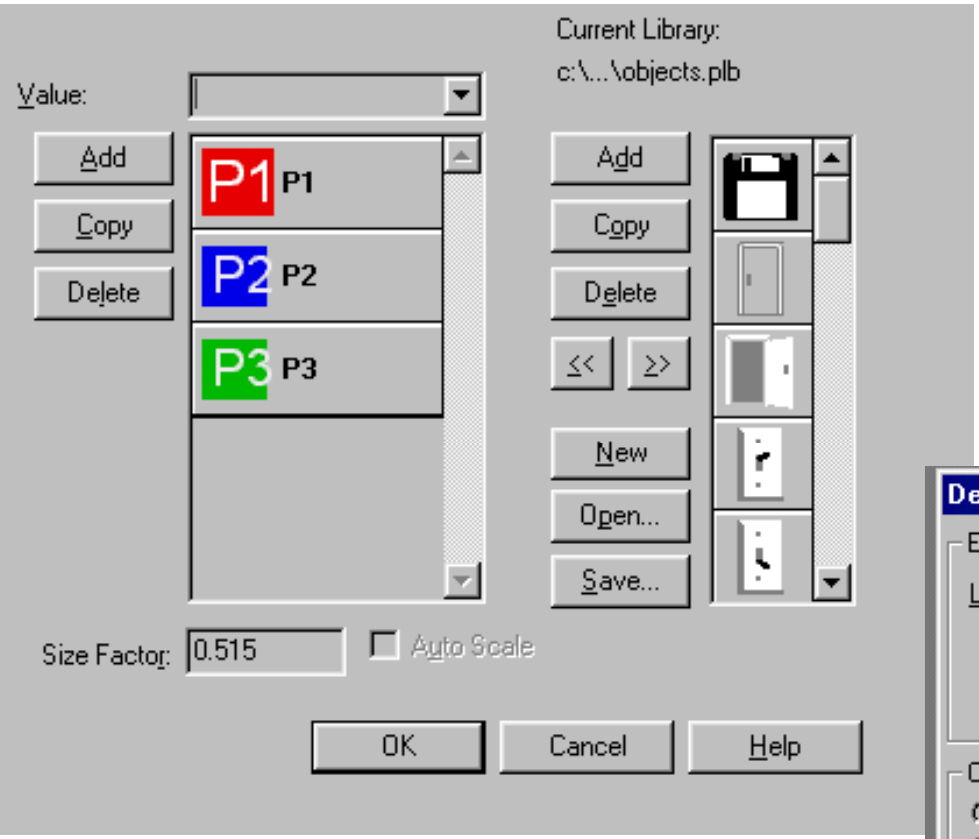


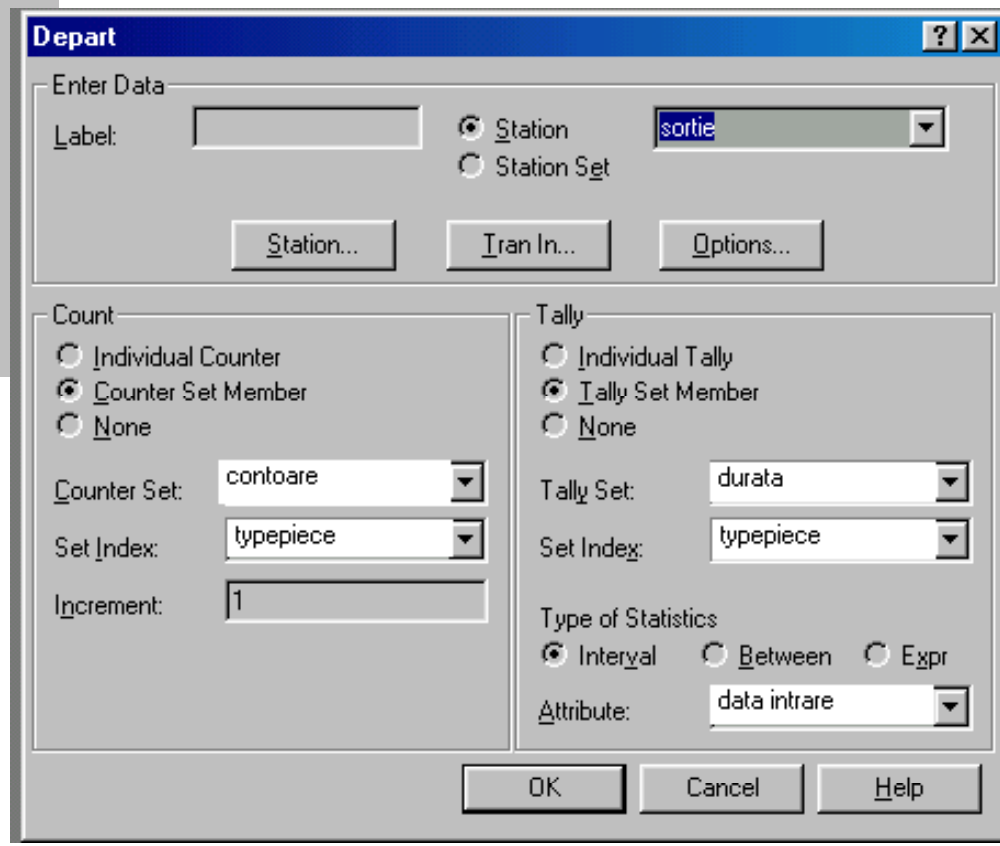

Assign
Assignments:
Attribute, typepiece, disc(0.6,1,0
<End of list>
Add...
Edit...
Delete
OK
Cancel
Help
Assignments
Assignment Type
Attribute
Variable
Rate
Level
Other
(Station, Sequence, Jobstep, etc.)
Attribute:
typepiece
Value:
disc(0.6,1,0.9,1,3)
OK
Cancel
Help


Sets
Resources
Pictures
Pictures...
Queues
Counters
Counters...
Storages
Tallies
Tallies...
Stations
Other
OK
Cancel
Help
Pictures
Picture Sets:
anim
<End of list>
Add...
Edit...
OK
Cancel
Picture Sets
Picture Set:
anim
Picture Names:
P1
P2
P3
<End of list>
Add...
Edit...
Delete
OK
Cancel
Help

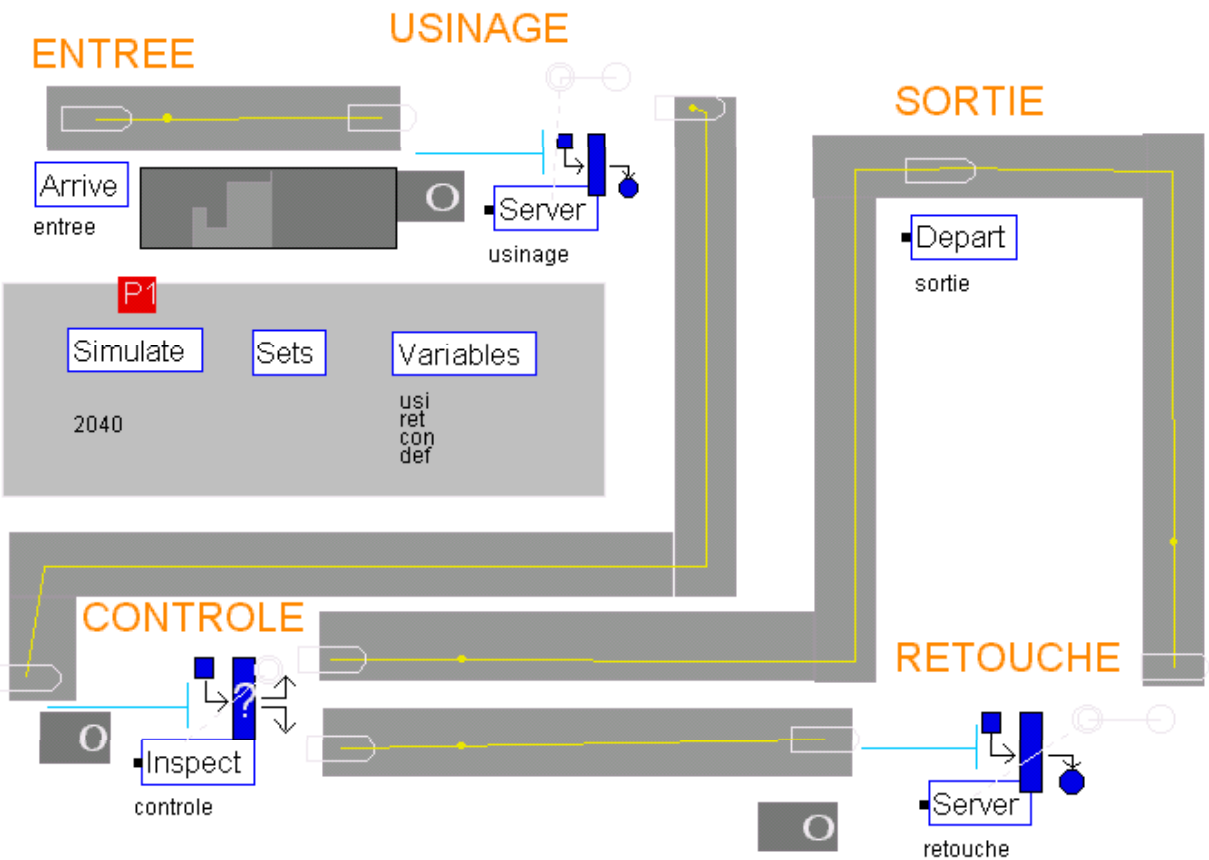

Sets
Resources
Pictures
Pictures...
Queues
Counters
Counters...
Storages
Tallies
Tallies...
Stations
Other
OK
Cancel
Help
Counters
Counter Sets:
contoare
<End of list>
Add...
Edit...
Dele
OK
Cancel
Help
Counter Sets
Counter Set:
contoare
Counter Names:
comp1
comp2
comp3
<End of list>
Add...
Edit...
Delete
OK
Cancel
Help


Sets
Resources
Pictures
Pictures...
Queues
Counters
Counters...
Storages
Tallies
Tallies...
Stations
Other
OK
Cancel
Help
Tallies
Tally Sets:
durata
<End of list>
Add...
Edit...
Delet
OK
Cancel
Help
Tally Sets
Tally Set:
durata
Tally Names:
durata P1
durata P2
durata P3
<End of list>
Add...
Edit...
Delete
OK
Cancel
Help


Current Library:
c:\...\objects.plb
Value:
Add
Copy
Delete
P1
P2
P3
Add
Copy
Delete
<<
>>
New
Open...
Save...
Size Factor:
0.515
Auto Scale
OK
Cancel
Help


Depart
Enter Data
Label:
Station
Station Set
sortie
Station...
Tran In...
Options...
Count
Individual Counter
Counter Set Member
None
Counter Set:
contoare
Set Index:
typepiece
Increment:
1
Tally
Individual Tally
Tally Set Member
None
Tally Set:
durata
Set Index:
typepiece
Type of Statistics
Interval
Between
Expr
Attribute:
data intrare
OK
Cancel
Help

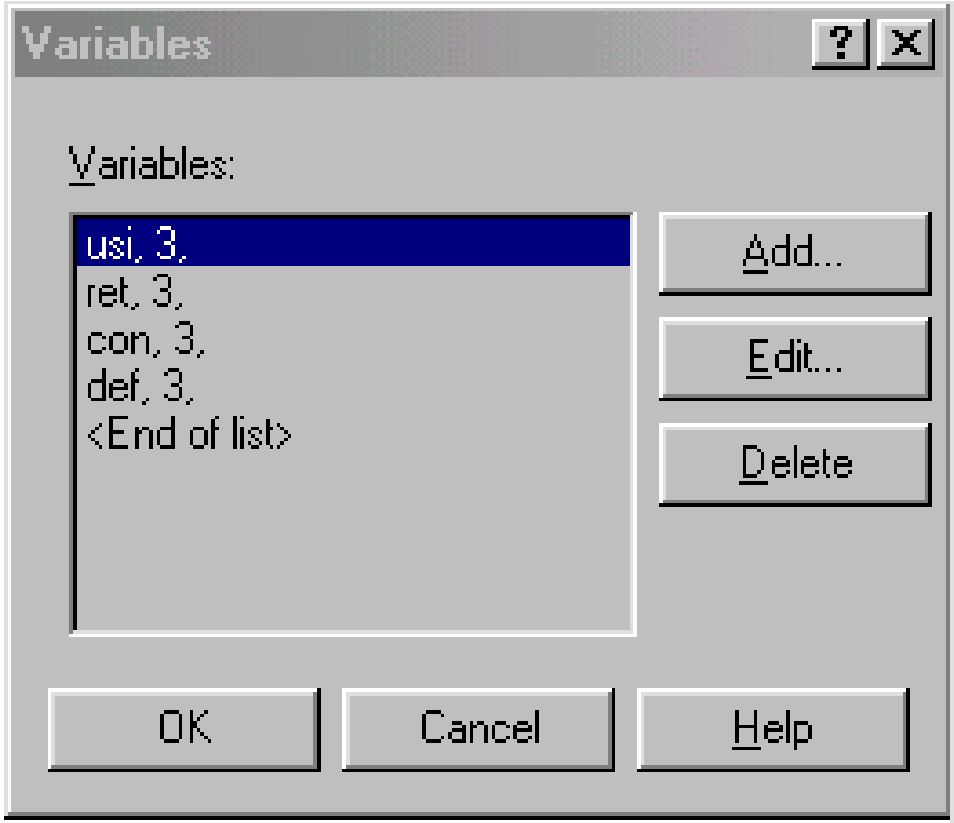
V2

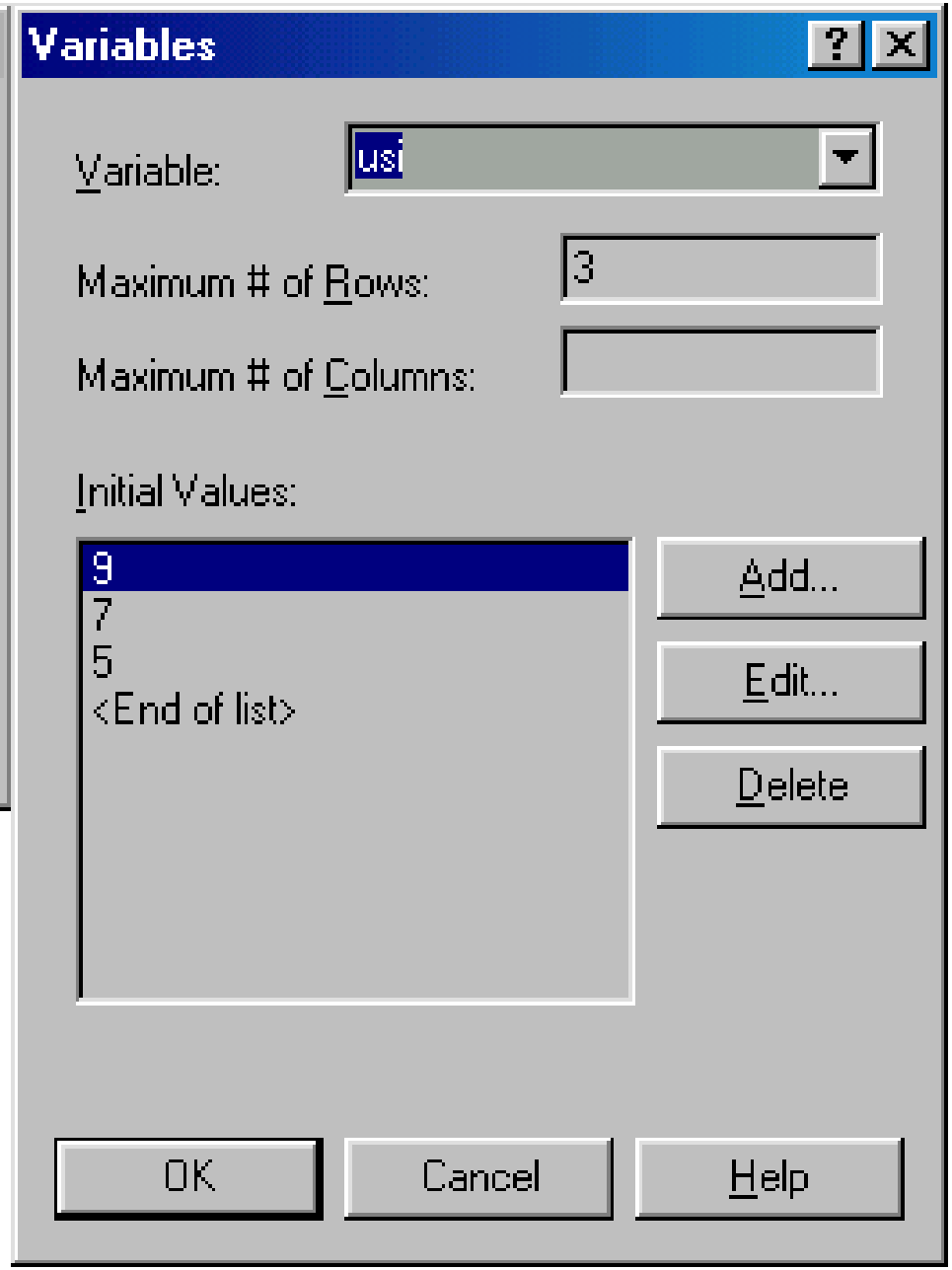


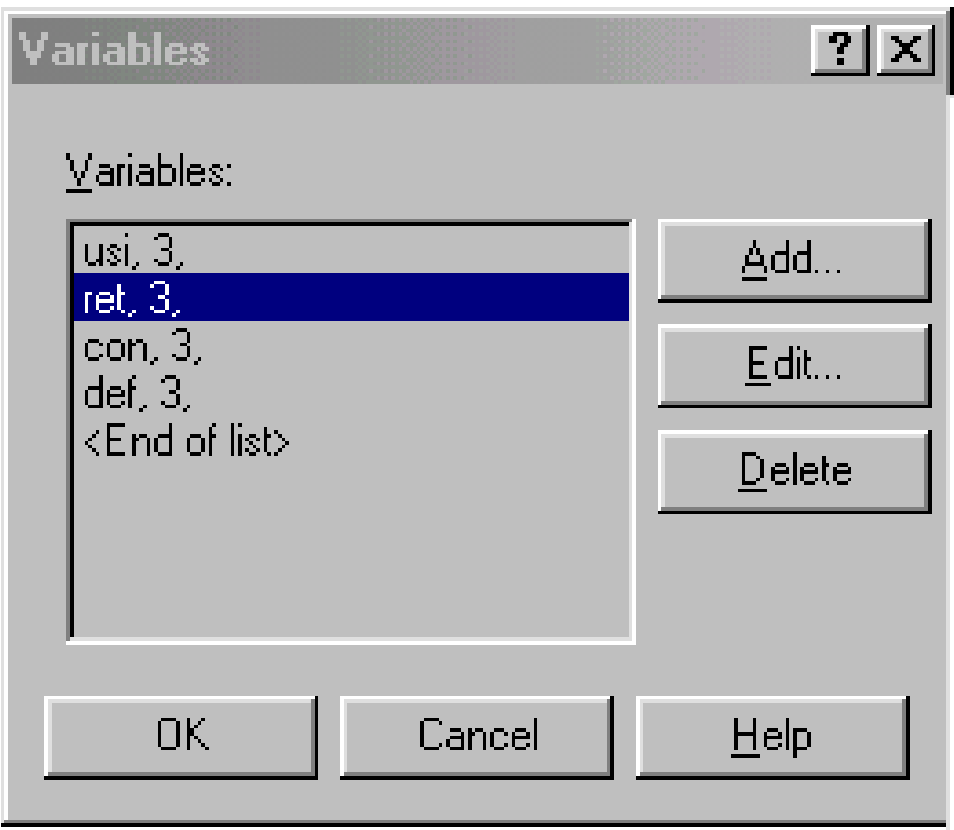
Tip de piesă	uzinaj	retuş	control	defecte
1	9	16	3	40%
2	7	14	4	40%
3	5	13	5	35%

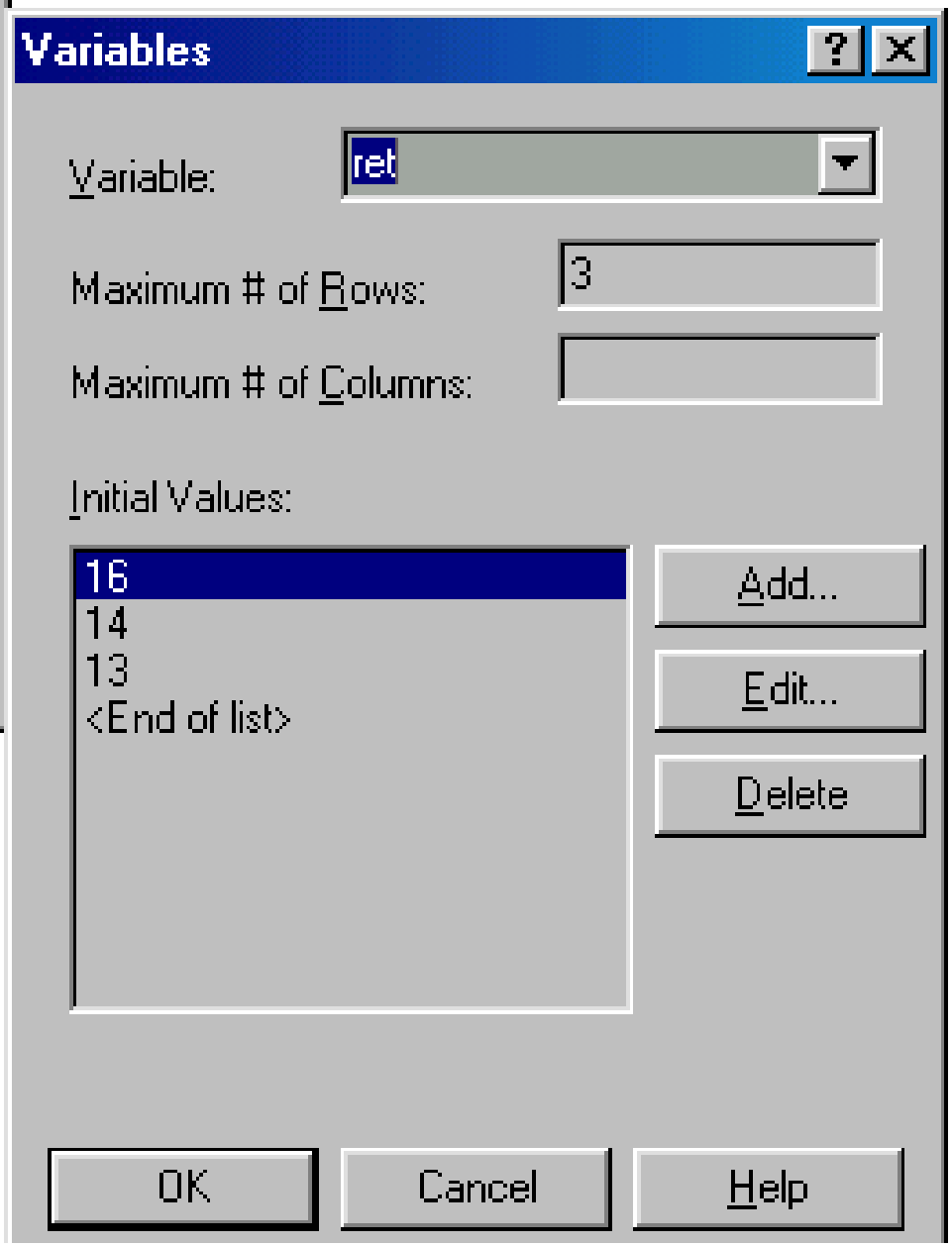
Pentru fiecare tip de piesă timpii de prelucrare, control şi retuş sunt diferiți.

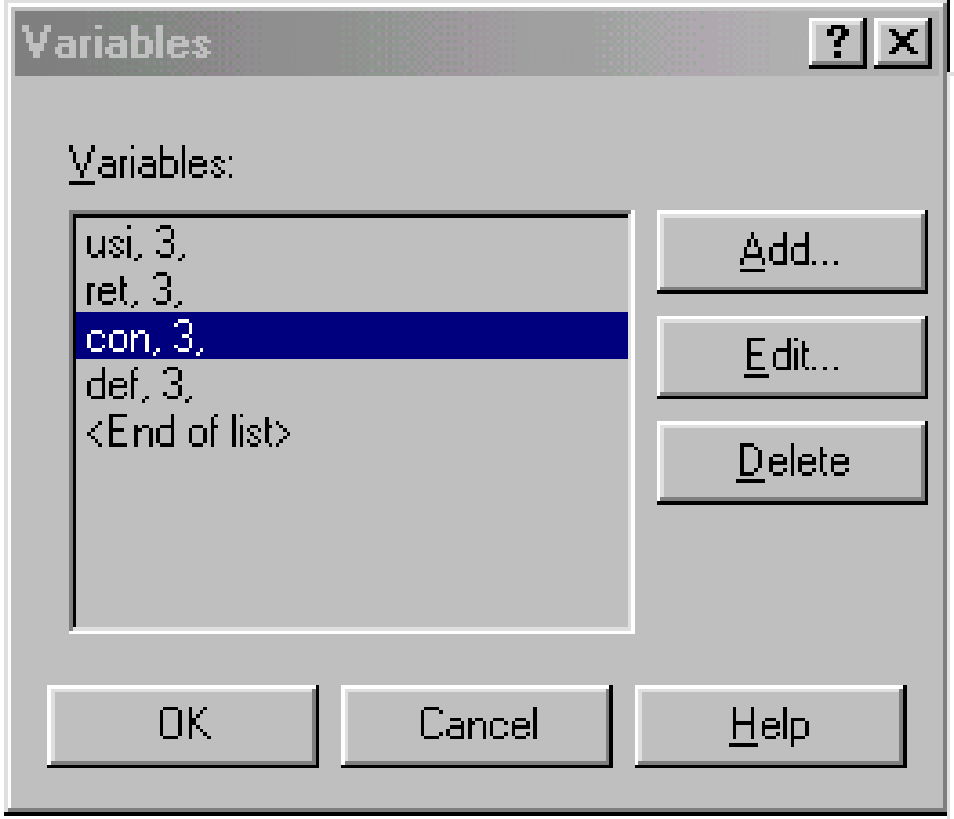
De asemenea rata de rebuturi este funcție de tipul de piesă. Pentru introducerea mărimilor diferite pentru timpii de prelucrare se face apel la modulul **Variables**, acestea definindu-se ca variabile şir, cu câte trei valori fiecare, cu indicele corespunzător tipului de piesa

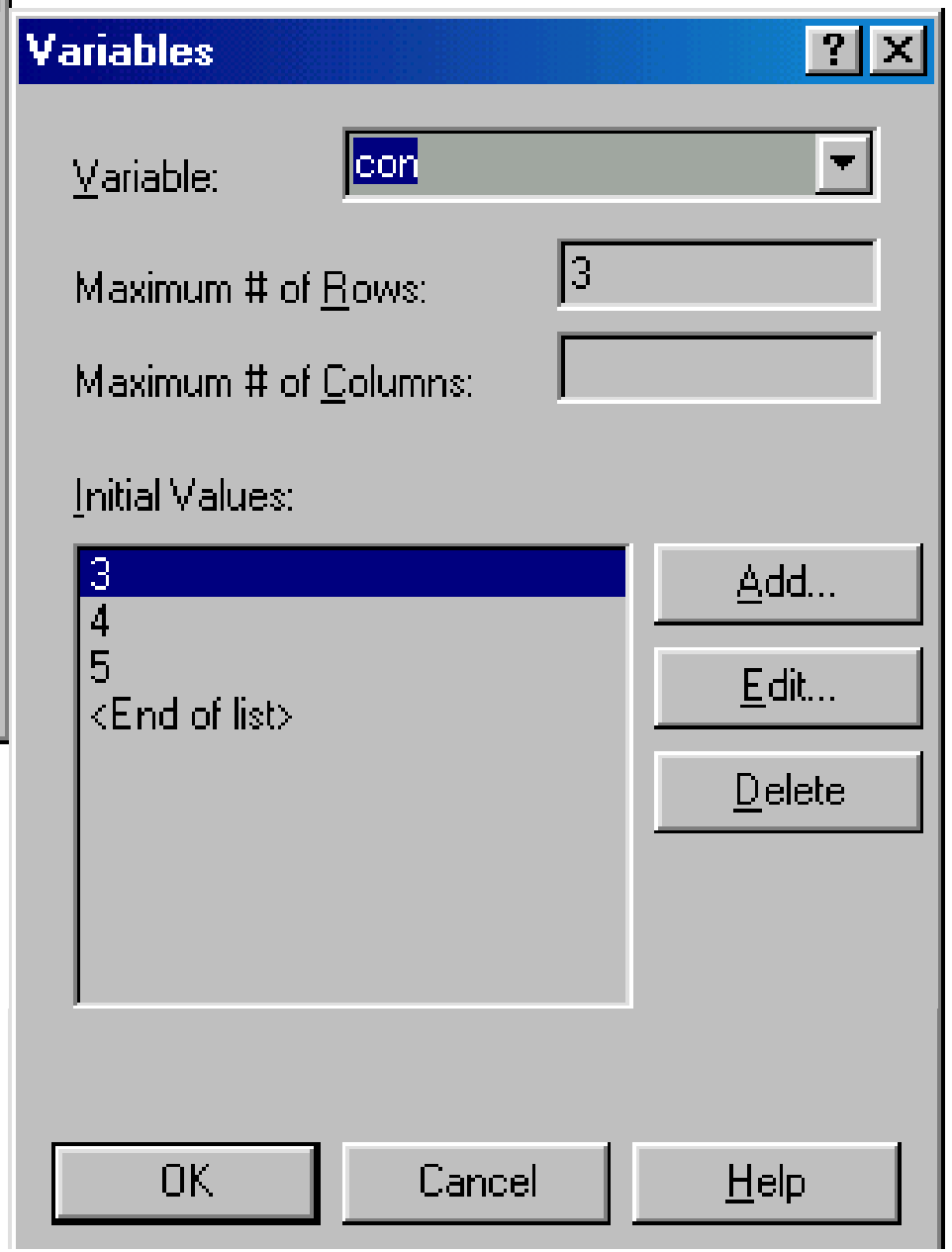

Variables
Variables:
usi, 3,
ret, 3,
con, 3,
def, 3,
<End of list>
Add...
Edit...
Delete
OK
Cancel
Help

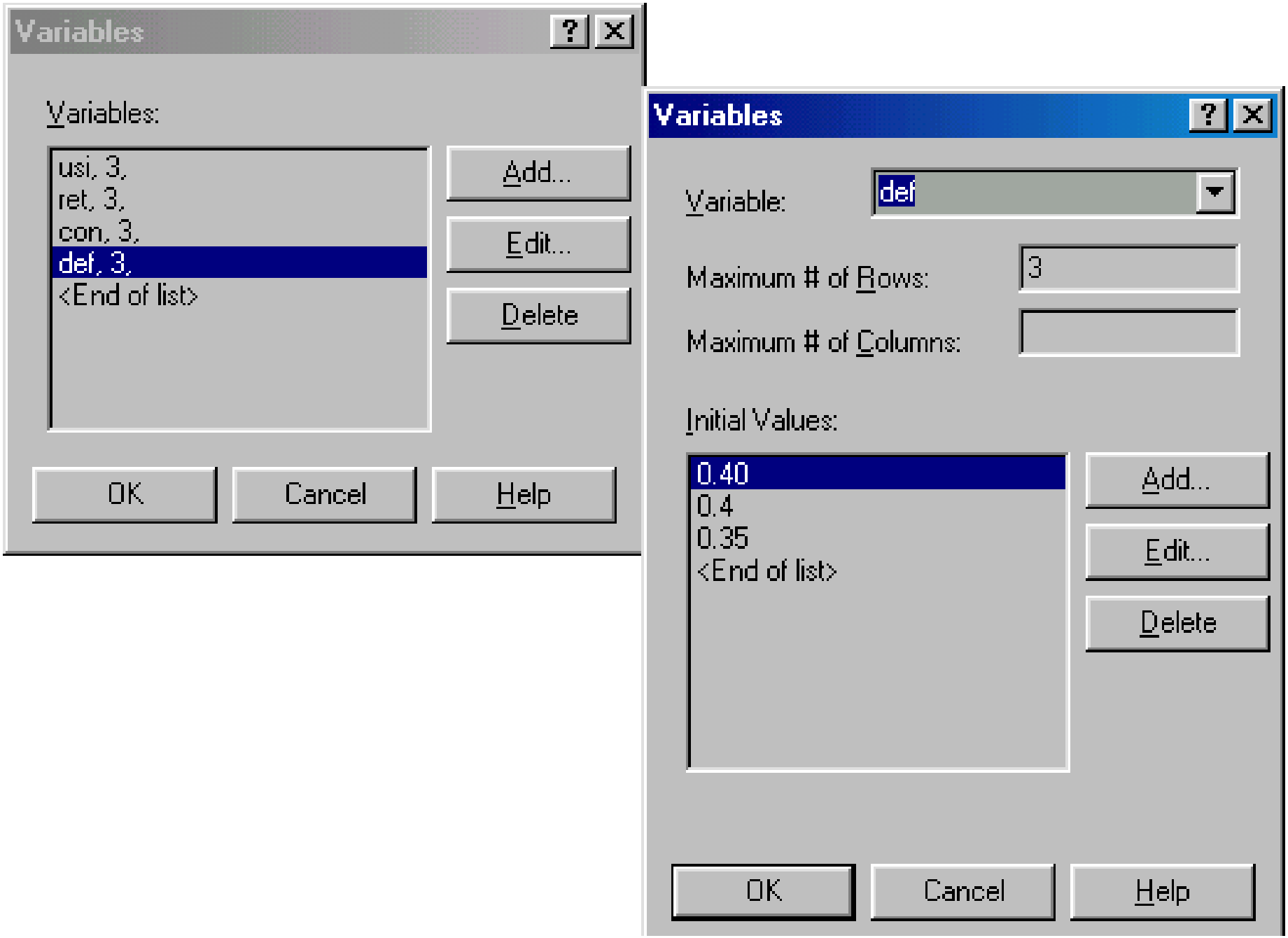

Variables
Variable:
usi
Maximum # of Rows:
3
Maximum # of Columns:
Initial Values:
9
7
5
<End of list>
Add...
Edit...
Delete
OK
Cancel
Help

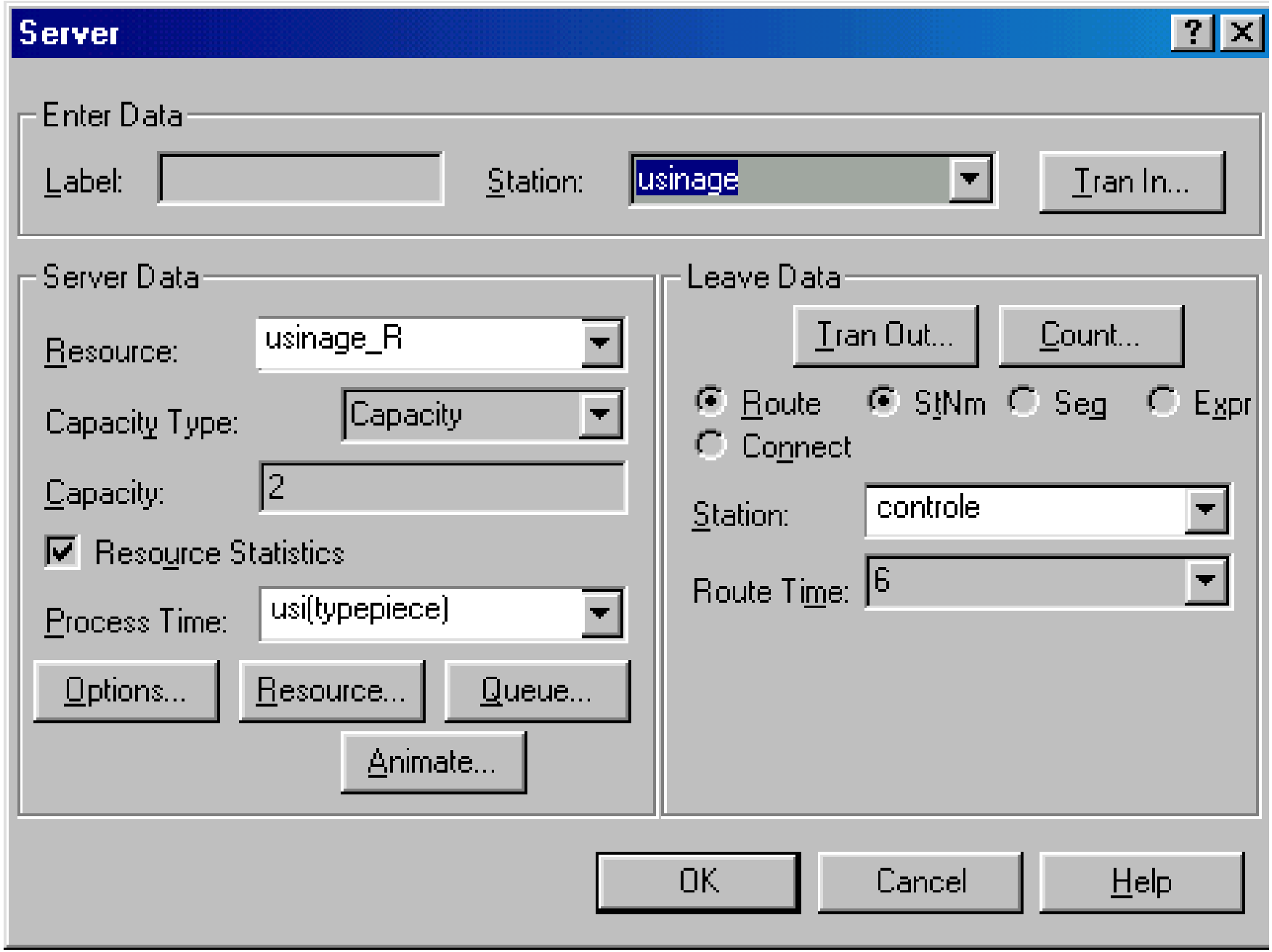

Variables
Variables:
usi, 3,
ret, 3,
con, 3,
def, 3,
<End of list>
Add...
Edit...
Delete
OK
Cancel
Help


Variables
Variable:
ret
Maximum # of Rows:
3
Maximum # of Columns:
Initial Values:
16
14
13
<End of list>
Add...
Edit...
Delete
OK
Cancel
Help


Variables
Variables:
usi, 3,
ret, 3,
con, 3,
def, 3,
<End of list>
Add...
Edit...
Delete
OK
Cancel
Help


Variables
Variable:
con
Maximum # of Rows:
3
Maximum # of Columns:
Initial Values:
3
4
5
<End of list>
Add...
Edit...
Delete
OK
Cancel
Help


Variables
Variables:
usi, 3,
ret, 3,
con, 3,
def, 3,
<End of list>
Add...
Edit...
Delete
OK
Cancel
Help
Variables
Variable:
def
Maximum # of Rows:
3
Maximum # of Columns:
Initial Values:
0.40
0.4
0.35
<End of list>
Add...
Edit...
Delete
OK
Cancel
Help


Server
Enter Data
Label:
Station:
usinage
Tran In...
Server Data
Resource:
usinage_R
Capacity Type:
Capacity
Capacity:
2
Resource Statistics
Process Time:
usi(typepiece)
Options...
Resource...
Queue...
Animate...
Leave Data
Tran Out...
Count...
Route
StNm
Seg
Expr
Connect
Station:
controle
Route Time:
6
OK
Cancel
Help