80   Background processing

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In multi-user mode, "sleeping Macs" can work as background processors
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Printing reports, calculations and sequential searches in large databases may take a lot of time and the user will have to wait for his Mac to finish. Normally, not every Mac in a network will be used, so the idea is to let the unused Macs do the time-consuming work. To accomplish this, when a user leaves his Mac after his work is done he does not shut down the Mac, but enables a menu option which calls the following procedure:

```
ON ERROR CALL (Problem)                          `if system error encountered, call
ON EVENT CALL (EventDrv)                          `pressing RETURN will abort the endless loop
Loop:=True
While (Loop)                                                 `start of "endless loop"
   MESSAGE (" I´m sleeping, press RETURN to wake me up ")
   vNow := Current time
   While ((Current time-vNow) < 60)          `wait one minute, until looking for "ToDo"
   End while

   While (Semaphore ("PleaseWait"))          `maybe more than one sleeping Mac wants to
   End While                                                  `read "ToDo"

   LOAD VARIABLE ("ToDo";ToDo)
   If (Undefined (ToDo))                              `ToDo is not there
      CLEAR SEMAPHORE ("PleaseWait")
   Else
      DELETE DOCUMENT ("ToDo")               `First free ToDo, ...
      CLEAR SEMAPHORE ("PleaseWait")
      EXECUTE (ToDo)                                 `then execute ToDo
      CLEAR VARIABLE ("ToDo")
   End If
End While
```

The idea of this procedure is following: if a user who wants a time-consuming procedure to be executed by a sleeping Mac, he creates a variable (called "ToDo"), assigns to this variable the name of the procedure (maybe with a parameter list) which should be executed, and saves it on the server volume of his application. The sleeping Mac executes an "endless loop" (beginning with "**While**(Loop)"), which tests every minute if the variable "ToDo" was saved on the volume. If this variable was saved, the contents of it would be interpreted as a procedure name and this procedure would be executed.

The so called "endless loop" isn´t really an endless loop because it can be interrupted by pressing the RETURN-key. This is managed by the **ON EVENT CALL** (EventDrv).

```
`   Global Procedure: EventDrv
If (Keycode=13)
```

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```
    CLEAR SEMAPHORE ("PleaseWait")
    CLEAR VARIABLE ("ToDo")
    Loop:=False
End If
```

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```
`   Global procedure: Problem
ok:=1
CONFIRM("A problem has been encountered, press OK to continue, Cancel to abort")
If(ok=FALSE)
   Loop:=FALSE
End if
```

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