

Multitasking

das Paket MTASK erlaubt kooperatives Multitasking.

Laden mit

```
1 GET MTASK
1 5 THRU
```

Glossar

```
(PAUSE) ( -- )
RESTART ( -- )
6 CONSTANT INT#
LOCAL ( base adr -- adr' )
@LINK ( -- adr )
!LINK ( adr -- )
SLEEP ( adr -- )
WAKE ( adr -- )
STOP ( -- )
SINGLE ( -- )
MULTI ( -- )
TASK: ( size -- )
SET-TASK ( IP Task -- )
ACTIVATE ( Task -- ) Activate a Task
BACKGROUND: ( -- ) Create a Background task
```

aus L/P-F83-Doku:

Multitasking low level

```
(PAUSE) (S -- )
```

Puts a task to sleep by storing the IP and the RP on the parameter stack. It then saves the pointer to the parameter stack in the user area and jumps to the code pointed at by USER+3, switching tasks.

```
RESTART (S -- )
```

Sets the user pointer to point to a new user area and restores the parameter stack that was previously saved in the USER area. Then pops the RP and IP off of the stack and resumes execution. The inverse of PAUSE.

Initialize current User area to a single task.

Manipulate Tasks

```
LOCAL Map a User variable from the current task to another task
```

```
@LINK Return a pointer the the next tasks entry point
```

```
!LINK Set the link field of the current task (perhaps relative)
```

```
SLEEP makes a task pause indefinitely.
```

```
WAKE lets a task start again.
```

```
STOP makes a task pause indefinitely.  
SINGLE removes the multi-tasker's scheduler/dispatcher loop.  
MULTI  
  installs the multi-tasker's scheduler/dispatcher loop.  
  By patching the appropriate INT vector and enabling PAUSE.
```

Beispiel

```
VARIABLE COUNTS  
BACKGROUND: COUNTER BEGIN  
  PAUSE 1 COUNTS +! AGAIN ;  
COUNTER WAKE MULTI  
  
COUNTS ?  
COUNTS ?  
COUNTS ?  
SINGLE
```

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