

**Timer**

<b>COLLABORATORS</b>
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	<i>TITLE :</i> Timer		
<i>ACTION</i>	<i>NAME</i>	<i>DATE</i>	<i>SIGNATURE</i>
WRITTEN BY		November 24, 2024	

<b>REVISION HISTORY</b>
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NUMBER	DATE	DESCRIPTION	NAME

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## Chapter 1

# Timer

### 1.1 Timer

#### Prozeduren

AddTime  
ReadEClock

CmpTime  
SubTime

GetSysTime

#### Konstanten

addRequest  
microHz  
vBlank

eClock  
setSysTime  
waitEClock

getSysTime  
timerName  
waitUntil

#### Typ-Deklarationen

EClockVal  
IOTimerPtr  
TimeVal

EClockValPtr  
TimeRequest  
TimeValPtr

IOTimer  
TimeRequestPtr

### 1.2 TMP:Modula-2/Timer.def

```
DEFINITION MODULE Timer; (*$ Implementation:=FALSE *)  
(* 10-Mar-1992/cn *)
```

```
FROM SYSTEM IMPORT ADDRESS;
```

```
FROM ExecD IMPORT  
  nonstd, IORequest ;
```

```
IMPORT R;
```

```
CONST  
  timerName="timer.device";
```

```
  microHz=0;  
  vBlank=1;
```

```
(*36*) eClock=2;
(*36*) waitUntil=3;
(*36*) waitEClock=4;

TYPE
  TimeVal =RECORD
    secs:LONGCARD;
    micro:LONGCARD;
  END;
  TimeValPtr =POINTER TO  TimeVal ;

  (*36*)  EClockVal =RECORD
    hi,lo:LONGCARD;
  END;
  (*36*)  EClockValPtr =POINTER TO  EClockVal ;

CONST
  addRequest=nonstd+0;
  getSysTime=nonstd+1;
  setSysTime=nonstd+2;

TYPE
  TimeRequest =RECORD
    node: IORequest ;
    CASE :INTEGER OF
      |0: time: TimeVal ;
      |1: eClock: EClockVal ;
    END;
  END;
  TimeRequestPtr =POINTER TO  TimeRequest ;

(* Synonyme zur einheitlichen Namensgebung *)
  IOTimer = TimeRequest ;
  IOTimerPtr = TimeRequestPtr ;

PROCEDURE  AddTime (
  timer{R.A6}:ADDRESS;
  dest{R.A0},source{R.A1}: TimeValPtr ); CODE -42;

PROCEDURE  CmpTime (
  timer{R.A6}:ADDRESS;
  dest{R.A0},source{R.A1}: TimeValPtr ):LONGINT; CODE -54;

PROCEDURE(*36*)  GetSysTime (
  timer{R.A6}:ADDRESS;
  VAR dest{R.A0}: TimeVal ); CODE -66;

PROCEDURE(*36*)  ReadEClock (
  timer{R.A6}:ADDRESS;
  VAR dest{R.A0}: EClockVal ):LONGCARD; CODE -60;

PROCEDURE  SubTime (
  timer{R.A6}:ADDRESS;
  dest{R.A0},source{R.A1}: TimeValPtr ); CODE -48;

END Timer.noimp
```

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