

```

EEEEEEEEEE XX XX AAAAAA MM MM PPPPPPPP LL EEEEEEEEE SSSSSSSS
EEEEEEEEEE XX XX AAAAAA MM MM PPPPPPPP LL EEEEEEEEE SSSSSSSS
EEEEEEEEEE XX XX AAAAAA MM MM PPPPPPPP LL EEEEEEEEE SSSSSSSS
EE XX XX AA AA MMMM MMMM PP PP LL EE SS
EE XX XX AA AA MMMM MMMM PP PP LL EE SS
EE XX XX AA AA MMMM MMMM PP PP LL EE SS
EE XX XX AA AA MM MM MM PP PP LL EE SS
EE XX XX AA AA MM MM MM PP PP LL EE SS
EEEEEEEE XX XX AA AA MM MM PPPPPPPP LL EEEEEEEEE SSSSSSS
EEEEEEEE XX XX AA AA MM MM PPPPPPPP LL EEEEEEEEE SSSSSSS
EEEEEEEE XX XX AA AA MM MM PPPPPPPP LL EEEEEEEEE SSSSSSS
EE XX XX AAAAAAAAAA MM MM PP LL EE SS
EE XX XX AAAAAAAAAA MM MM PP LL EE SS
EE XX XX AAAAAAAAAA MM MM PP LL EE SS
EE XX XX AA AA MM MM PP LL EE SS
EE XX XX AA AA MM MM PP LL EE SS
EE XX XX AA AA MM MM PP LL EE SS
EEEEEEEEEE XX XX AA AA MM MM PP LLLLLLLLLL EEEEEEEEE SSSSSSSS
EEEEEEEEEE XX XX AA AA MM MM PP LLLLLLLLLL EEEEEEEEE SSSSSSSS
EEEEEEEEEE XX XX AA AA MM MM PP LLLLLLLLLL EEEEEEEEE SSSSSSSS

```

```
TTTTTTTTT1  EEEEEEEEE  SSSSSSSS  TTTTTTTTT  LL          AAAAAA  BBBB8888  IIIIII  000000
TTTTTTTTTT  EEEEEEEEE  SSSSSSSS  TTTTTTTTT  LL          AAAAAA  BBBB8888  IIIIII  000000
TT          EE          SS          TT          LL          AA      AA  BB      BB  II      II  00      00
TT          EE          SS          TT          LL          AA      AA  BB      BB  II      II  00      00
TT          EE          SS          TT          LL          AA      AA  BB      BB  II      II  00      00
TT          EE          SS          TT          LL          AA      AA  BB      BB  II      II  00      00
TT          EEEEEEEE  SSSSSS    TT          LL          AA      AA  BBBB8888  II      II  00      00
TT          EEEEEEEE  SSSSSS    TT          LL          AA      AA  BBBB8888  II      II  00      00
TT          EE          SS          TT          LL          AAAAAAAAAA  BB      BB  II      II  00      00
TT          EE          SS          TT          LL          AAAAAAAAAA  BB      BB  II      II  00      00
TT          EE          SS          TT          LL          AA      AA  BB      BB  II      II  00      00
TT          EE          SS          TT          LL          AA      AA  BB      BB  II      II  00      00
TT          EE          SS          TT          LL          AA      AA  BB      BB  II      II  00      00
TT          EEEEEEEEE  SSSSSSSS  TT          LL          AA      AA  BBBB8888  IIIIII  000000
TT          EEEEEEEEE  SSSSSSSS  TT          LL          AA      AA  BBBB8888  IIIIII  000000
```

```
FFFFFFFFFF  000000  RRRRRRRR
FFFFFFFFFF  000000  RRRRRRRR
FF          00      00  RR      RR
FF          00      00  RR      RR
FF          00      00  RR      RR
FF          00      00  RR      RR
FFFFFFFFFF  00      00  RRRRRRRR
FFFFFFFFFF  00      00  RRRRRRRR
FF          00      00  RR  RR
FF          00      00  RR  RR
FF          00      00  RR  RR
FF          00      00  RR  RR
FF          000000  RR      RR
FF          000000  RR      RR
```

```
File: TESTLABIO.FOR
      Version 'V04-000'
```

```
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*****
```

```
Tests the LABIO system by allocating upto 16 channels
Enter the number of channels, rate, and buffer size
```

```
Program TEST_LABIO
```

```
include 'LABCHNDEF.FOR'
```

```
Parameter MBX_NAME = 'TEST_LABIO2'
```

```
Character*130 RETURN
```

```
Character*15 COMMAND
```

```
Character*24 DATE_TIME
```

```
Logical*4 SUCCESS,SYSSCREMBX
```

```
Integer*4 TEST_CHAN,TEST_RATE,TEST_BUF_SIZE
```

```
Map To the Global Data Base and the event flags
```

```
call LABIO_INIT(0)
```

```
Open Mailbox to LABIO_CONNECT
```

```
Open ( Unit = 1, Name = 'LABIO_CONNECT' , Type = 'OLD' )
```

```
Create Mailbox for response from LABIO_CONNECT
```

```
SUCCESS = SYSSCREMBX(,MBX_CHANNEL,,%val('FD00'x),,MBX_NAME)
```

```
If (.not. SUCCESS) call FATAL_ERROR( SUCCESS, '(CREATING MAILBOX)')
```

```
Open via FORTRAN
```

```
!
:   Open ( Unit = 2, Name = MBX_NAME, Type = 'OLD' )
:   Deassign the channel assigned when we created it
:       Call SYSSDASSGN( %Val(MBX_CHANNEL) )
:   Connect to the LABIO system
:       COMMAND = 'CONNECT'
:       Write(1,100) COMMAND,MBX_NAME
:   Wait for Response from LABIO system
:       Read(2,200) RETURN_CODE,RETURN
:       If( RETURN_CODE .ne. 0 ) Go To 99          !Failed to connect!
:   Get parameters from operator
10  LAST_TEST_CHAN=TEST_CHAN
:   Type 600, ' Enter number of channels, rate(in tics), and buffer size'
:   Accept 700, TEST_CHAN,TEST_RATE,TEST_BUF_SIZE
:   If ( TEST_CHAN .eq. 0 ) Call Exit(1)
:   Deallocate Channels from last time
:       Do 20 AD_CHANNEL=1, LAST_TEST_CHAN
:       Call SYSSCLREF(%Val(EF_ACTIVITY_OFF+AD_CHANNEL)) !Stop Acq.
:       Call SYSSSETEF(%Val(EF_NOTIFY_OFF+AD_CHANNEL))
:       COMMAND = 'DEALLOCATE'
:       Write(1,400) COMMAND,AD_CHANNEL
:       Read(2,200) RETURN_CODE,RETURN
:       If( RETURN_CODE .ne. 0 )
20  1 Type 500, ' Deallocation failure',RETURN_CODE,RETURN
:       Continue
:   Allocate Channels
:       Do 30 AD_CHANNEL=1,TEST_CHAN
:       COMMAND = 'ALLOCATE'
:       Write(1,400) COMMAND,AD_CHANNEL,TEST_RATE,TEST_BUF_SIZE,0
:       Read(2,200) RETURN_CODE,RETURN
:       If( RETURN_CODE .ne. 0 )
30  1 Type 500, ' Allocation failure',RETURN_CODE,RETURN
:   Enable data acquisition by setting event flag ACTIVITY and NOTIFY
:       Call SYSSSETEF(%Val(EF_ACTIVITY_OFF+AD_CHANNEL))
:       Call SYSSSETEF(%Val(EF_NOTIFY_OFF+AD_CHANNEL))
:       Go To 10
:   Connect Failure
```

```
1  
99      Type 500, ' Connect failure',RETURN_CODE,RETURN  
      Go To 10  
  
100     Format(' ',A,A)  
200     Format(12,A)  
400     Format(' ',A,41)  
500     Format(A/' ',12,A)  
600     Format(A)  
700     Format(3110)  
      End
```

XALINK  
MAR

LABIOLINK  
COM

DRMASTER  
FOR

LPATEST  
FOR

XMESSAGE  
MAR

LABTOPEAK  
FOR

LABIOSTR  
COM

XATEST  
FOR

LABTOCOM  
FOR

LABDEMO  
COM

LABMBXDEF  
FOR

LABIOSAMP  
FOR

MAILCOMPRESS  
COM

LABCHNDEF  
FOR

CONNECT  
COM

LABTOCON  
FOR

LABDEMO  
FOR

PEAK  
FOR

DRCOPYBLD  
COM

XIDRIVER  
MAR

LABTOSEC  
FOR

DRSLAVE  
FOR

LABTOACO  
FOR

LABTOCOMP  
COM

LABIOSTAT  
FOR

TESTLABIO  
FOR