```
EEEEEEEEEEEEEEE   RRRRRRRRRRR      FFFFFFFFFFFFFFF
EEEEEEEEEEEEEEE   RRRRRRRRRRRR     FFFFFFFFFFFFFFF
EEEEEEEEEEEEEEE   RRRRRRRRRRRR     FFFFFFFFFFFFFFF
EEE               RRR          RRR  FFF
EEE               RRR          RRR  FFF
EEE               RRR          RRR  FFF
EEE               RRR          RRR  FFF
EEE               RRR          RRR  FFF
EEE               RRR          RRR  FFF
EEEEEEEEEEEE      RRRRRRRRRRRR      FFFFFFFFFFFF
EEEEEEEEEEEE      RRRRRRRRRRRR      FFFFFFFFFFFF
EEEEEEEEEEEE      RRRRRRRRRRRR      FFFFFFFFFFFF
EEE               RRR    RRR        FFF
EEE               RRR    RRR        FFF
EEE               RRR    RRR        FFF
EEE               RRR       RRR     FFF
EEE               RRR       RRR     FFF
EEE               RRR       RRR     FFF
EEEEEEEEEEEEEEE   RRR          RRR   FFF
EEEEEEEEEEEEEEE   RRR          RRR   FFF
EEEEEEEEEEEEEEE   RRR          RRR   FFF
EEEEEEEEEEEEEEE   RRR          RRR   FFF
```

FILEID**INITREAL

```
IIIIII    NN      NN   IIIIII   TTTTTTTTTT  RRRRRRRR   EEEEEEEEEE    AAAAAA    LL
IIIIII    NN      NN   IIIIII   TTTTTTTTTT  RRRRRRRR   EEEEEEEEEE    AAAAAA    LL
  II      NN      NN     II         TT      RR     RR  EE           AA      AA  LL
  II      NN      NN     II         TT      RR     RR  EE           AA      AA  LL
  II      NNNN    NN     II         TT      RR     RR  EE           AA      AA  LL
  II      NNNN    NN     II         TT      RR     RR  EE           AA      AA  LL
  II      NN  NN  NN     II         TT      RRRRRRRR   EEEEEEEE     AA      AA  LL
  II      NN  NN  NN     II         TT      RRRRRRRR   EEEEEEEE     AA      AA  LL
  II      NN    NNNN     II         TT      RR   RR    EE           AAAAAAAAAA  LL
  II      NN    NNNN     II         TT      RR   RR    EE           AAAAAAAAAA  LL
  II      NN      NN     II         TT      RR    RR   EE           AA      AA  LL          ....
  II      NN      NN     II         TT      RR    RR   EE           AA      AA  LL          ....
IIIIII    NN      NN   IIIIII       TT      RR     RR  EEEEEEEEEE   AA      AA  LLLLLLLLLL  ....
IIIIII    NN      NN   IIIIII       TT      RR     RR  EEEEEEEEEE   AA      AA  LLLLLLLLLL  ....

LL            IIIIII     SSSSSSSS
LL            IIIIII     SSSSSSSS
LL              II     SS
LL              II     SS
LL              II     SS
LL              II     SS
LL              II       SSSSSS
LL              II       SSSSSS
LL              II             SS
LL              II             SS
LL              II             SS
LL              II             SS
LLLLLLLLLL    IIIIII     SSSSSSSS
LLLLLLLLLL    IIIIII     SSSSSSSS
```

```
0001            Subroutine ERFRTINI ( Array_addr, Array_size )
0002
0003    C
0004    C Version:      'V04-000'
0005    C
0006    C*****************************************************************************
0007    C*                                                                           *
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0024    C*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.                  *
0025    C*                                                                           *
0026    C*                                                                           *
0027    C*****************************************************************************
0028    C
0029    C++
0030    C       Author: Sharon Reynolds         Creation date:  29-Mar-1983
0031    C
0032    C       Functional Description:
0033    C
0034    C       This module initializes data structures that contain the
0035    C       device class, type, version number, and the transfer vector
0036    C       offsets for the devices supported by the ERFRLTIM image.
0037    C
0038    C       Modified By:
0039    C
0040    C       V03-001 SAR0127         Sharon A. Reynolds,     7-Sep-1983
0041    C               Added initialization of a common text area for
0042    C               device registers used by both the DR750/DR780 modules.
0043    C
0044    C**
0045    C--
0046
0047    C
0048    C       Include files
0049    C
0050            Include 'SRC$:DR32COM.FOR /nolist'
0101
0102    !
0103    !  REALTIME DEVICE CLASS AND TYPES
0104    !
0105            Parameter DC$_REALTIME = '00000060'X
0106
0107            PARAMETER DT$_LPA11 = '00000001'X       !  LPA-11
```

```
0108            PARAMETER DT$_DR780 = '00000002'X       !  DR780
0109            PARAMETER DT$_DR750 = '00000003'X       !  DR750
0110            PARAMETER DT$_DR11W = '00000004'X       !  DR11W
0111            PARAMETER DT$_PCL11R = '00000005'X      !  PCL11 RECEIVER (CSS)
0112            PARAMETER DT$_PCL11T = '00000006'X      !  PCL11 TRANSMTTER (CSS)
0113    !       PARAMETER DT$_DR11C = '00000007'X       !  DR11C PARALLEL INTERFACE
0114            PARAMETER DT$_BS_DT07 = '00000008'X     !  PARALLEL INTERFACE ON DMF-32
0115    !       PARAMETER DT$_XP_PCL11B = '00000009'X   !  PCL-11B (DECNET and NONDECNET mode CSS)
0116    !       PARAMETER DT$_XI_DR11C = '0000000A'X    !  PARALLEL INTERFACE ON DMF-32
0117
0118            Parameter V1 = 1                        ! device module version number
0119
0120            Parameter       Maxtypes = 7
0121
0122            Integer*4       Array_addr, Array_size
0123
0124            Integer*2       Real_time_codes ( 4 * Maxtypes )
0125
0126    C
0127    C The following table consist of:
0128    C  DEVICE TYPE, DEVICE CLASS, MODULE VERSION, TRANSFER VECTOR OFFSET
0129    C
0130    C The MODULE VERSION is used to determine if the module in this image
0131    C is the one to use. This is accomplished the root image comparing
0132    C this value against the value in the master tables in the root image.
0133    C
0134    C The TRANSFER VECTOR OFFSET is the index to the transfer vector to
0135    C be used for a specific device type. For example, the transfer
0136    C vectors for the disk image are ordered as:
0137    C       INITDISK 0
0138    C       MASSDISK 1
0139    C       RKDISK   2
0140    C       RLDISK   3
0141    C       ECT.
0142
0143            Data            Real_time_codes /
0144            1 DT$_LPA11,     DC$_REALTIME, V1, 1,   !  LPA-11
0145            2 DT$_DR780,     DC$_REALTIME, V1, 2,   !  DR780
0146            3 DT$_DR750,     DC$_REALTIME, V1, 3,   !  DR750
0147            4 DT$_DR11W,     DC$_REALTIME, V1, 4,   !  DR11W
0148            5 DT$_PCL11R,    DC$_REALTIME, V1, 5,   !  PCL11 RECEIVER (CSS)
0149            6 DT$_PCL11T,    DC$_REALTIME, V1, 6,   !  PCL11 TRANSMTTER (CSS)
0150    !       7 DT$_DR11C,     DC$_REALTIME, V1, 0,   !  DR11C PARALLEL INTERFACE
0151            8 DT$_BS_DT07,   DC$_REALTIME, V1, 7/   !  UNIBUS SWITCH
0152    !       8 DT$_XI_DR11C,  DC$_REALTIME, V1, 1    !  PARALLEL INTERFACE ON DMF-32
0153    !       9 DT$_XP_PCL11B, DC$_REALTIME, V1, 1    !  PCL-11B (DECNET and NONDECNET mode CSS)
0154
0155            Array_addr = %LOC (Real_time_codes(1))
0156            Array_size = Maxtypes
0157
0158    C
0159    C Initialize the DR32 common.
0160    C
0161            V1DR_SL(0) = 'SUCCESSFUL COMPLETION*'
0162            V1DR_SL(1) = 'COMMAND STARTED*'
0163            V1DR_SL(2) = 'INVALID PTE*'
0164            V1DR_SL(3) = 'COMMAND IN*'
```

```
0165            V1DR_SL(4) = 'FAR-END DISABLED*'
0166            V1DR_SL(5) = 'SELF TEST*'
0167            V1DR_SL(6) = 'RANGE ERROR*'
0168            V1DR_SL(7) = 'UNALIGNED QUEUE ERROR*'
0169            V1DR_SL(8) = 'INVALID COMMAND PACKET*'
0170            V1DR_SL(9) = 'FREE QUEUE EMPTY*'
0171            V1DR_SL(10) = 'RANDOM ENABLE*'
0172            V1DR_SL(11) = 'INVALID DDI COMMAND*'
0173            V1DR_SL(12) = 'LENGTH ERROR*'
0174            V1DR_SL(13) = 'DRIVER ABORT*'
0175            V1DR_SL(14) = 'DDI PARITY ERROR*'
0176
0177            V2DR_SL(21) = 'NON-EXISTENT REGISTER*'
0178            V2DR_SL(22) = 'LOG FAR-END REGISTERS*'
0179            V2DR_SL(23) = 'FAR-END ERROR*'
0180
0181            V1DR_CB(1) = 'BASE VA OF COMMAND BLOCK*'
0182            V1DR_CB(2) = 'LENGTH OF COMMAND BLOCK (BYTES)*'
0183            V1DR_CB(3) = 'SVAPTE OF COMMAND BLOCK BASE VA*'
0184
0185            V1DR_BB(1) = 'BASE VA OF BUFFER BLOCK*'
0186            V1DR_BB(2) = 'LENGTH OF BUFFER BLOCK (BYTES)*'
0187            V1DR_BB(3) = 'SVAPTE OF BUFFER BLOCK BASE VA*'
0188
0189            Return
0190            End
```

PROGRAM SECTIONS

	Name	Bytes	Attributes
0	$CODE	293	PIC CON REL LCL SHR EXE RD NOWRT LONG
1	$PDATA	472	PIC CON REL LCL SHR NOEXE RD NOWRT LONG
2	$LOCAL	56	PIC CON REL LCL NOSHR NOEXE RD WRT LONG
3	DR32	600	PIC OVR REL GBL SHR NOEXE RD WRT LONG
	Total Space Allocated	1421	

ENTRY POINTS

Address	Type	Name
0-00000000		ERFRTINI

VARIABLES

Address	Type	Name	Address	Type	Name
AP-00000004@	I*4	ARRAY_ADDR	AP-00000008@	I*4	ARRAY_SIZE

ARRAYS

Address	Type	Name	Bytes	Dimensions
2-00000000	I*2	REAL_TIME_CODES	56	(28)
3-0000019B	CHAR	V1DR_BB	93	(3)
3-000001F8	CHAR	V1DR_CB	96	(3)
3-00000000	CHAR	V1DR_SL	345	(0:14)
3-00000159	CHAR	V2DR_SL	66	(21:23)

COMMAND QUALIFIERS

```
FORTRAN /LIS=LIS$:INITREAL/OBJ=OBJ$:INITREAL MSRC$:INITREAL

/CHECK=(NOBOUNDS,OVERFLOW,NOUNDERFLOW)
/DEBUG=(NOSYMBOLS,TRACEBACK)
/STANDARD=(NOSYNTAX,NOSOURCE_FORM)
/SHOW=(NOPREPROCESSOR,NOINCLUDE,MAP)
/F77  /NOG_FLOATING  /I4  /OPTIMIZE  /WARNINGS  /NOD_LINES  /NOCROSS_REFERENCE  /NOMACHINE_CODE  /CONTINUATIONS=19
```

COMPILATION STATISTICS

```
Run Time:           1.68 seconds
Elapsed Time:       5.39 seconds
Page Faults:        124
Dynamic Memory:     160 pages
```

GETCODE.LIS

INITPROC1.LIS

INITREAL.LIS

EXECIMAGE.LIS

ERFSUMM.LIS

INITBUS.LIS

INITPROC4.LIS

KMS3271.LIS

ERFTAPEVE.LIS

HEADER.LIS

FILES.LIS

ERLLOGSYS.LIS

INITPROC2.LIS

INIT_TAPE.LIS

ERLLOGMSG.LIS

INITDISK.LIS

INITPROC5.LIS

IMAGELOAD.LIS

INITPROC3.LIS

INTERVENE.LIS

ERFRTVEC.LIS

ERFSUMVEC.LIS