

FFFFFFFFFFFFFF	DDDDDDDDDDDD		LLL
FFFFFFFFFFFFFF	DDDDDDDDDDDD		LLL
FFFFFFFFFFFFFF	DDDDDDDDDDDD		LLL
FFF	DDD	DDD	LLL
FFF	DDD	DDD	LLL
FFF	DDD	DDD	LLL
FFF	DDD	DDD	LLL
FFF	DDD	DDD	LLL
FFF	DDD	DDD	LLL
FFFFFFFFFFFFFF	DDD	DDD	LLL
FFFFFFFFFFFFFF	DDD	DDD	LLL
FFFFFFFFFFFFFF	DDD	DDD	LLL
FFF	DDD	DDD	LLL
FFF	DDD	DDD	LLL
FFF	DDD	DDD	LLL
FFF	DDD	DDD	LLL
FFF	DDD	DDD	LLL
FFF	DDD	DDD	LLL
FFF	DDDDDDDDDDDD		LLLLLLLLLLLLLLLL
FFF	DDDDDDDDDDDD		LLLLLLLLLLLLLLLL
FFF	DDDDDDDDDDDD		LLLLLLLLLLLLLLLL

```

FFFFFFFFF DDDDDDD LL
FFFFFFFFF DDDDDDD LL
FF DD DD LL
FF DD DD LL
FF DD DD LL
FFFFFFF DD DD LL
FFFFFFF DD DD LL
FF DD DD LL
FF DD DD LL
FF DD DD LL
FF DD DD LL
FF DD DD LL
FF DD DD LL
FF DDDDDDD LLLLLLLLLL
FF DDDDDDD LLLLLLLLLL

```

```

SSSSSSSS DDDDDDD LL
SSSSSSSS DDDDDDD LL
SS DD DD LL
SS DD DD LL
SS DD DD LL
SS DD DD LL
SSSSSS DD DD LL
SSSSSS DD DD LL
SS DD DD LL
SS DD DD LL
SS DD DD LL
SS DD DD LL
SSSSSSSS DDDDDDD LLLLLLLLLL
SSSSSSSS DDDDDDD LLLLLLLLLL

```

```

PPPPPPP AAAAAA RRRRRRR DDDDDDD EEEEEEEEE FFFFFFFF
PPPPPPP AAAAAA RRRRRRR DDDDDDD EEEEEEEEE FFFFFFFF
PP PP AA AA RR RR DD DD EE FF
PP PP AA AA RR RR DD DD EE FF
PP PP AA AA RR RR DD DD EE FF
PP PP AA AA RR RR DD DD EE FF
PPPPPPP AA AA RRRRRRR DD DD EEEEEEE FFFFFFFF
PPPPPPP AA AA RRRRRRR DD DD EEEEEEE FFFFFFFF
PP AA AA RRRRRRR DD DD EE FF
PP AA AA RRRRRRR DD DD EE FF
PP AA AA RR RR DD DD EE FF
PP AA AA RR RR DD DD EE FF
PP AA AA RR RR DD DD EE FF
PP AA AA RR RR DD DD EE FF
PP AA AA RR RR DDDDDDD EEEEEEEEE FF
PP AA AA RR RR DDDDDDD EEEEEEEEE FF

```

```

....
....
....
....

```

{  
{ Version: 'V04-000'  
{

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```
module $FDLDEF3:
```

```
/**      These fields are found in FDL$AB_CTRL
/*
```

```
aggregate FDLDEF3 union prefix FDL$:
```

```
  FDLDEF_BITSO structure:
```

```
  STATUS bitfield mask length 3;      /* Status code for processing
  WARNING bitfield mask;              /* A warning message has been issued for this secondary
  PRIMARY bitfield mask;              /* Primary has been parsed
  NEWPRI bitfield mask;               /* A new primary has been parsed
  SECONDARY bitfield mask;           /* Secondary has been parsed
  INITIAL bitfield mask;              /* Initial pass
  COMMENT bitfield mask;             /* Secondary comment has been detected
  LINECMR bitfield mask;             /* Line comment has been detected
  PCALL bitfield mask;                /* This is an EDF Parse call
  DCL bitfield mask;                  /* Called by a DCL utility
  STRING_SPEC bitfield mask;         /* An FDL STRING
  USED_STRING bitfield mask;         /* FDL STRING has been set up
  APOST_PRES bitfield mask;          /* An apostrophe was found by the pre_parse
  QUOTE_PRES bitfield mask;          /* A quotation mark was found by the pre_parse
  REPARSE bitfield mask;             /* Doing a parse into a parse
  DFLT_PRES bitfield mask;           /* The DFLT FDL SPEC argument was present
  STVACID bitfield mask;             /* FDL$GL_STNUMPTR is valid
  GCALL bitfield mask;               /* This is an EDF Generate call
  FULLGEN bitfield mask;             /* Generate the full FDL spec
  DEALLOC bitfield mask;             /* Make FDL$$CHECK_BLOCKS deallocate the
                                        /* RMS control blocks after it checks them
```

```
end FDLDEF_BITSO;
```

```
/*      Codes found in FDL$GL_PRIMARY
/*
```

```
constant(
```

```
  DUMMY_PRIMARY$                    /* Dummy_primary$
  . ACCESS                           /* Access
  . ACL                              /* Access Control Lists
  . ANALA                            /* Analysis_of_area
  . ANALK                             /* Analysis_of_key
  . AREA                             /* Area
  . CONNECT                          /* Connect
  . DATE                             /* Date
  . FILE                             /* File
  . "IDENT"                          /* Ident
  . JNL                              /* Journal
  . KEY                              /* Key
  . RECORD                           /* Record
  . SHARING                          /* Sharing
  . SYSTEM                           /* System
  . TITLE                            /* Title
```

```
/* LAST PRIMARY
```

```
/*
/* PRITAB_SIZE
/* ) equals 0 increment 1 prefix FDL tag $C:
```

```
/* Bits defined for FDL$AB_PRIMCTRL
```

```

/*
FDLDEF BITS1 structure;
ACCESS bitfield mask;          /* Access
ACL bitfield mask;            /* Access Control List
ANALA bitfield mask;          /* Analysis_of_area
ANALK bitfield mask;          /* Analysis_of_key
AREA bitfield mask;           /* Area
CONNECT bitfield mask;        /* Connect
DATE bitfield mask;           /* Date
FILE bitfield mask;           /* File
"IDENT" bitfield mask;        /* Ident
JNL bitfield mask;            /* Journal
KEY bitfield mask;            /* Key
RECORD bitfield mask;         /* Record
SHARING bitfield mask;        /* Sharing
SYSTEM bitfield mask;         /* System
TITLE bitfield mask;          /* Title
end FDLDEF_BITS1;

/*      Single field switch for YES - NO qualifiers
/*
constant FALSE      equals 0  prefix FDL tag $C;  /* No
constant TRUE       equals -1 prefix FDL tag $C;  /* Yes

/*      Secondary codes for each primary
/*      These codes are found in FDL$GL_SECONDARY
/*
/*      Qualifiers for each secondary are listed seperatly

/*      !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
/*      REMEMBER TO UPDATE XXX BEG AND XXX END MARKERS IF AN ATTRIBUTE IS
/*      ADDED/SUBTRACTED ONTO/OFF EITHER END OF A PRIMARY SECTION
/*      !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

/*      Access primary
/*
constant(
  DUMMY_SECONDARY$          /* Dummy_secondary$
  . FACBIO                  /* Block I/O only
  . FACDEL                  /* Deletes
  . FACGET                  /* Gets
  . FACPUT                  /* Puts
  . FACBRO                  /* Record and Block I/O
  . FACTRN                  /* Truncate
  . FACUPD                  /* Updates

/*      ACL
/*
  . ACE                      /* Entry

/*      Codes for Analysis_of_area primary
/*
  . RECL                      /* Reclaimed_space

```

```
/*      Analysis_of_key primary
/*
```

. DFIL	/* Data_fill
. DKC	/* Data_key_compression
. DRC	/* Data_record_compression
. DREC	/* Data_record_count
. DSPC	/* Data_space_occupied
. DELE	/* Deletions
. DEPTH	/* Depth
. DUPL	/* Duplicates_per_value
. ICOMP	/* Index_compression
. IFIL	/* Index_fill
. ISPC	/* Index_space_occupied
. LIRCNT	/* LevelT_record_count
. MDL	/* Mean_data_length
. MIL	/* Mean_index_length
. RANACC	/* Random_accesses
. RANINS	/* Random_inserts
. SEQACC	/* Sequential_accesses

```
/*      Codes for Area primary
/*
```

. ALLOC	/* Allocation
. BTCONT	/* Best_try_contiguous
. BKT	/* Bucket_size
. CONTG	/* Contiguous
. EXACT	/* Exact_position
. EXTND	/* Extend
. POSI	/* Position
. VOLU	/* Volume

```
/*      Codes for Connect primary
/*
```

. ASY	/* Asynchronous
. BIO	/* Block_IO
. BUCODE	/* Bucket_code
. RCTX	/* Context
. EOF	/* End_of_file
. FLOA	/* Fill_buckets
. FDEL	/* Fast_delete
. KRF	/* Key_of_reference
. KGE	/* Key_greater_equal
. KGT	/* Key_greater_than
. KLIM	/* Key_limit
. LOCMODE	/* Locate_mode
. REA	/* Lock_on_read
. RLK	/* Lock_on_write
. ULK	/* Manual_unlocking
. MBC	/* Multiblock_count
. MBF	/* Multibuffer_count
. NLK	/* Nolock
. NXR	/* Nonexistent_record
. RAH	/* Read_ahead
. RRL	/* Read_regardless
. TMENB	/* Timeout_enable
. TMO	/* Timeout_period

```

. TPT /* Truncate_on_put
. TTCCO /* TT_cancel_control_o
. TTCVT /* TT_upcase_input
. TTPMT /* TT_prompt
. TTPTA /* TT_purge_type_ahead
. TTRNE /* TT_read_noecho
. TTRNF /* TT_read_nofilter
. UIF /* Update_if
. WAT /* Wait_for_record
. WBH /* Write_behind

/* Codes for Date primary
/*
. BACKUP /* Backup
. CREAT /* Creation
. EXPR /* Expiration
. REV /* Revision

/* Codes for File primary
/*
. ALL /* Allocation
. BTC /* Best_try_contiguous
. BKTSIZ /* Bucket_size
. CLUSIZ /* Cluster_size
. FCTX /* Context
. CONT /* Contiguous
. CIF /* Create_if
. DFNAM /* Default_name
. DEFWRIT /* Deferred_write
. DOC /* Delete_on_close
. DIR /* Directory_entry
. EODEL /* Erase_on_delete
. EXTEN /* Extension
. GBC /* Global_buffer_count
. MTBLSIZ /* MT_block_size
. MTC /* MT_current_position
. MTNEF /* MT_not_eof
. MTPRO /* MT_protection
. MTRW /* MT_rewind / MT_open_rewind
. MTRWC /* MT_close_rewind
. MAXRECN /* Max_record_number
. MAXVER /* Maximize_version
. NAME /* Name
. BKTUP /* Nobackup
. NFS /* Non_file_structured
. OFP /* Output_file_parse
. ORG /* Organization
. OWNER /* Owner
. POC /* Print_on_close
. PROT /* Protection
. READC /* Read_check
. REVISN /* Revision
. SQO /* Sequential_only
. SOC /* Submit_on_close
. SUPER /* Superscede
. TEMPO /* Temporary

```

```

      . TOC                /* Truncate_on_close
      . UFO                /* User_file_open
      . WIN                /* Window_size
      . WRITEC            /* Write_check

/* Codes for Journal primary
/*
      . AFTIM            /* After_image
      . AFTNAM          /* After_name
      . AUDIT           /* Audit_trail
      . AUDNAM         /* Audit_name
      . BEFIM          /* Before_image
      . BEFNAM        /* Before_name
      . RU             /* Recovery_unit

/* Codes for Key primary
/*
      . CHANGE          /* Changes
      . DAREA           /* Data_area
      . DFILL           /* Data_fill
      . DATKC          /* Data_key_compression
      . DATRC          /* Data_record_compression
      . DUPS           /* Duplicates
      . IAREA          /* Index_area
      . IDXC           /* Index_compression
      . IFILL          /* Index_fill
      . LAREA          /* Level1_index_area
      . KYNAME         /* Name
      . NULL           /* Null_key
      . NULLVAL        /* Null_value
      . PROL           /* Prologue_version
      . SEGLEN         /* Segment Length
      . SEGPOS         /* position
      . SEGTyp        /* type

/* Codes for Record primary
/*
      . BLKSPN         /* Block_span
      . CARCTRL        /* Carriage_control
      . VFCSIZ        /* Control_field_size
      . FMT           /* Format
      . SIZE          /* Record_size

/* Sharing primary
/*
      . SHRDEL        /* Deletes
      . SHRGET        /* Gets
      . SHRMSE        /* Multi-stream connects
      . SHRNIL        /* Dissallow sharing
      . SHRPUP        /* Puts
      . SHRUPD        /* Updates
      . SHRUPI        /* User provided interlocking

/* Codes for System primary
/*
      . DEVICE        /* Device

```

```
      , SOURCE          /* Source
      , TARGET          /* Target

/** THE LAST SECONDARY FOLLOWS:
/*
      , SECTAB_SIZE
      ) equals 0 increment 1 prefix FDL tag SC;

/* The following are markers which are useful to FDL$GENERATE
/*
constant ACCESS_BEG equals FDL$C_FACBIO prefix FDL$ tag C;
constant ACCESS_END equals FDL$C_FACUPD prefix FDL$ tag C;

constant ACL_BEG equals FDL$C_ACE prefix FDL$ tag C;
constant ACL_END equals FDL$C_ACE prefix FDL$ tag C;

constant ANALYSIS_OF_AREA_BEG equals FDL$C_RECL prefix FDL$ tag C;
constant ANALYSIS_OF_AREA_END equals FDL$C_RECL prefix FDL$ tag C;

constant ANALYSIS_OF_KEY_BEG equals FDL$C_DFIL prefix FDL$ tag C;
constant ANALYSIS_OF_KEY_END equals FDL$C_SEQACC prefix FDL$ tag C;

constant AREA_BEG equals FDL$C_ALLOC prefix FDL$ tag C;
constant AREA_END equals FDL$C_VOLU prefix FDL$ tag C;

constant CONNECT_BEG equals FDL$C_ASY prefix FDL$ tag C;
constant CONNECT_END equals FDL$C_WBH prefix FDL$ tag C;

constant DATE_BEG equals FDL$C_BACKUP prefix FDL$ tag C;
constant DATE_END equals FDL$C_REV prefix FDL$ tag C;

constant FILE_BEG equals FDL$C_ALL prefix FDL$ tag C;
constant FILE_END equals FDL$C_WRITEC prefix FDL$ tag C;

constant JOURNAL_BEG equals FDL$C_AFTIM prefix FDL$ tag C;
constant JOURNAL_END equals FDL$C_RU prefix FDL$ tag C;

constant KEY_BEG equals FDL$C_CHANGE prefix FDL$ tag C;
constant KEY_END equals FDL$C_SEGTyp prefix FDL$ tag C;

constant RECORD_BEG equals FDL$C_BLKSPN prefix FDL$ tag C;
constant RECORD_END equals FDL$C_SIZE prefix FDL$ tag C;

constant SHARING_BEG equals FDL$C_SHRDEL prefix FDL$ tag C;
constant SHARING_END equals FDL$C_SHRUPI prefix FDL$ tag C;

constant SYSTEM_BEG equals FDL$C_DEVICE prefix FDL$ tag C;
constant SYSTEM_END equals FDL$C_TARGET prefix FDL$ tag C;

/* Qualifiers
/*
/* These codes are found in FDL$GL_QUALIFIER
/*
/* Qualifiers for the Area secondary
/*
```

```
constant(
  ANYPOS          /* Any_Cylinder
  . CLUSPOS       /* Cluster
  . CYLPOS        /* Cylinder
  . FIDPOS        /* File_ID
  . FNMPOS        /* File_name
  . LOGPOS        /* Logical
  . NOPOS         /* None
  . VIRPOS        /* Virtual

/*
  Qualifiers for the Record secondary
/*
  . NONE          /* None
  . CR            /* Carrage return
  . FTN          /* Fortran
  . PRINT        /* Print

  . UDF          /* UNDEFINED
  . FIX          /* FIXED
  . VAR          /* VARIABLE
  . VFC          /* VFC
  . STM          /* STREAM
  . STMLF        /* STREAM_LF
  . STMCR        /* STREAM_CR

/*
  Qualifiers for the Journal secondary
/*
  . IF_IN        /* If_in_recovery_unit
  . NEC          /* Necessary_to_write
  . NEVER        /* Never_RU_journal

/*
  Qualifiers for the System secondary
/*
  . IAS          /* IAS
  . RSTS         /* RSTS/E
  . M            /* RSX-11M
  . MPLUS        /* RSX-11M-PLUS
  . RT           /* RT-11
  . TRAX         /* TRAX-11
  . VMS          /* VAX/VMS

/*
  Qualifiers for the File secondary
/*
  . SEQ          /* SEQUENTIAL
  . REL          /* RELATIVE
  . IDX          /* INDEXED
  . HSH          /* HASHED

/*
  Qualifiers for the Key secondary
/*
  . STG          /* STRING
  . IN2          /* INT2
  . BN2          /* BIN2
  . IN4          /* INT4
```

. BN4  
. IN8  
. BN8  
. PAC

/\* BIN4  
/\* INT8  
/\* BIN8  
/\* DECIMAL

) equals 0 increment 1 prefix FDL tag \$C;

/\* Constants for FDLGENTAB  
/\*

constant(

FAB  
. RAB  
. XAB  
. NAM

) equals 0 increment 1 prefix FDL tag \$C;

constant(

DUMMY  
. BYTE  
. WORD  
. LONG  
. QUAD  
. OCTA  
. SWITCH  
. STRING  
. QUALIFIER  
. SPECIAL

) equals 0 increment 1 prefix FDL tag \$C;

/\*\* Parse data stuff

/\*\* These structures must be contiguous so that EDF can access them from  
/\*\* one point. If they need to be changed consult with the owner of edf

/** FDL\$AL_BLOCK:	ctrl	0
/**	pcall	1
/**	primary	2
/**	prinum	3
/**	prictrl	4
/**	secondary	5
/**	secnum	6
/**		7
/**		

```

/**
/**
/**
/**      secctrl      /**
/**
/**
/**
/**
/**
/**
/**      qualifier      13
/**
/**      number      14
/**
/**      switch      15
/**
/**      owner ufc      16
/**
/**      spare1      17
/**
/**      protection      18
/**
/**      fid 1      19
/**
/**      fid 2      20
/**
/**      fid 3      21
/**
/**      - date/time quadword -      22
/**
/**
/**
/**      string desc      24
/**
/**
/**
/**      comment desc      26
/**
/**
/**
/**      line desc      28
/**
/**
/**
/**      upcased desc      30
/**
/**
/**
/**      line count      32
/**
/**
/**
/**      item desc      33
/**
/**
/**
/**      gcall      35 = FDL$K_BLOCK_END
/**

```

```

/**
/**
/** FDL$K_BLOCK_END equals the offset to the last longword in FDL$AL_BLOCK
/**

constant CTRL          equals 0                prefix FDL tag $L;
constant PCALL         equals FDL$$_CTRL + 1   prefix FDL tag $L;
constant PRIMARY      equals FDL$$_PCALL + 1   prefix FDL tag $L;
constant PRINUM       equals FDL$$_PRINUM + 1  prefix FDL tag $L;
constant PRICTRL      equals FDL$$_PRINUM + 1  prefix FDL tag $L;
constant SECONDARY    equals FDL$$_PRICTRL + 1 prefix FDL tag $L;
constant SECNUM       equals FDL$$_SECONDARY + 1 prefix FDL tag $L;

/** FDL$K_SCTRL_LONG is the number of longwords in FDL$AB SECCTRL
/** FDL$K_SCTRL_VEC is the number of bits in FDL$AB SECCTRL
/** Each longword has enough bits to map 32 unique secondary attributes

constant SCTRL_LONG   equals 6                prefix FDL tag $K;
constant SCTRL_VEC    equals FDL$K_SCTRL_LONG * 32 prefix FDL tag $K;
constant SECCTRL      equals FDL$$_SECNUM + 1  prefix FDL tag $A;
constant QUALIFIER    equals
FDL$A_SECCTRL + FDL$K_SCTRL_LONG prefix FDL tag $L;

constant NUMBER       equals FDL$$_QUALIFIER + 1 prefix FDL tag $L;
constant SWITCH       equals FDL$$_NUMBER + 1  prefix FDL tag $L;
constant OWNER UIC    equals FDL$$_SWITCH + 1  prefix FDL tag $L;
constant SPARET       equals FDL$$_OWNER UIC + 1 prefix FDL tag $L;
constant PROTECTION   equals FDL$$_SPARET + 1  prefix FDL tag $L;
constant FID1         equals FDL$$_PROTECTION + 1 prefix FDL tag $L;
constant FID2         equals FDL$$_FID1 + 1    prefix FDL tag $L;
constant FID3         equals FDL$$_FID2 + 1    prefix FDL tag $L;
constant DATE TIME    equals FDL$$_FID3 + 1    prefix FDL tag $Q;
constant STRING       equals FDL$Q_DATE TIME + 2 prefix FDL tag $Q;
constant COMMENT      equals FDL$Q_STRING + 2  prefix FDL tag $Q;
constant LINE         equals FDL$Q_COMMENT + 2  prefix FDL tag $Q;
constant UPCASED      equals FDL$Q_LINE + 2     prefix FDL tag $Q;
constant STMTNUM      equals FDL$Q_UPCASED + 2  prefix FDL tag $L;
constant ITEM         equals FDL$$_STMTNUM + 1  prefix FDL tag $Q;
constant GCALL        equals FDL$Q_ITEM + 2     prefix FDL tag $L;
constant BLOCK_END    equals FDL$$_GCALL       prefix FDL tag $K;

/*      Misc.
/*
/*      Max size of the fdl line
/*
constant MAXLINE      equals 1024              prefix FDL tag $K;
constant CLEAR        equals 0                prefix FDL tag $C;

end FDLDEF3;
end_module $FDLDEF3;

```

