```
PPPPPPPPPPPP      LLL                IIIIIIIII    RRRRRRRRRRRR      TTTTTTTTTTTTTTT   LLL
PPPPPPPPPPPPP     LLL                IIIIIIIII    RRRRRRRRRRRRR     TTTTTTTTTTTTTTT   LLL
PPPPPPPPPPPPP     LLL                IIIIIIIII    RRRRRRRRRRRRR     TTTTTTTTTTTTTTT   LLL
PPP          PPP  LLL                   III       RRR         RRR       TTT           LLL
PPP          PPP  LLL                   III       RRR         RRR       TTT           LLL
PPP          PPP  LLL                   III       RRR         RRR       TTT           LLL
PPP          PPP  LLL                   III       RRR         RRR       TTT           LLL
PPP          PPP  LLL                   III       RRR         RRR       TTT           LLL
PPP          PPP  LLL                   III       RRR         RRR       TTT           LLL
PPPPPPPPPPPPP     LLL                   III       RRRRRRRRRRRRR         TTT           LLL
PPPPPPPPPPPPP     LLL                   III       RRRRRRRRRRRRR         TTT           LLL
PPPPPPPPPPPPP     LLL                   III       RRRRRRRRRRRRR         TTT           LLL
PPP               LLL                   III       RRR   RRR             TTT           LLL
PPP               LLL                   III       RRR   RRR             TTT           LLL
PPP               LLL                   III       RRR   RRR             TTT           LLL
PPP               LLL                   III       RRR      RRR          TTT           LLL
PPP               LLL                   III       RRR      RRR          TTT           LLL
PPP               LLL                   III       RRR      RRR          TTT           LLL
PPP               LLLLLLLLLLLLLLL    IIIIIIIII    RRR         RRR       TTT           LLLLLLLLLLLLLLL
PPP               LLLLLLLLLLLLLLL    IIIIIIIII    RRR         RRR       TTT           LLLLLLLLLLLLLLL
PPP               LLLLLLLLLLLLLLL    IIIIIIIII    RRR         RRR       TTT           LLLLLLLLLLLLLLL
```

FILEID**FILEDEF

```
FFFFFFFFFF    IIIIII    LL          EEEEEEEEEE  DDDDDDDD    EEEEEEEEEE  FFFFFFFFFF
FFFFFFFFFF    IIIIII    LL          EEEEEEEEEE  DDDDDDDD    EEEEEEEEEE  FFFFFFFFFF
FF              II      LL          EE          DD      DD  EE          FF
FF              II      LL          EE          DD      DD  EE          FF
FF              II      LL          EE          DD      DD  EE          FF
FF              II      LL          EE          DD      DD  EE          FF
FFFFFFFF        II      LL          EEEEEEEE    DD      DD  EEEEEEEE    FFFFFFFF
FFFFFFFF        II      LL          EEEEEEEE    DD      DD  EEEEEEEE    FFFFFFFF
FF              II      LL          EE          DD      DD  EE          FF
FF              II      LL          EE          DD      DD  EE          FF
FF              II      LL          EE          DD      DD  EE          FF          ....
FF              II      LL          EE          DD      DD  EE          FF          ....
FF            IIIIII    LLLLLLLLLL  EEEEEEEEEE  DDDDDDDD    EEEEEEEEEE  FF          ....
FF            IIIIII    LLLLLLLLLL  EEEEEEEEEE  DDDDDDDD    EEEEEEEEEE  FF          ....

  IIIIII      NN      NN
  IIIIII      NN      NN
    II        NN      NN
    II        NN      NN
    II        NNNN    NN
    II        NNNN    NN
    II        NN  NN  NN
    II        NN  NN  NN
    II        NN    NNNN
    II        NN    NNNN
    II        NN      NN
    II        NN      NN
  IIIIII      NN      NN
  IIIIII      NN      NN
```

```
%replace file_constant_size     by 450; /* envir is not included */
%replace file_constant_revision by 3;

%replace linenumber_offset      by 48;
%replace pagenumber_offset      by 50;
declare 1 file_constant based,
        2 next                  pointer,
        2 previous              pointer,
        2 error                 fixed bin(31),
        2 attr(0:31)            bit,
        2 dttr(0:31)            bit,
        2 buffer                pointer,
        2 buffer_end            pointer,
        2 buffer_pointer        pointer,
        2 rfa(2)                fixed bin(31),
        2 revision              fixed bin(15), /* initialize to file_constant_
                                                  revision */
        2 linesize              fixed bin(15),
        2 pagesize              fixed bin(15),
        2 column                fixed bin(15),
        2 line                  fixed bin(15),
        2 page                  fixed bin(15),
        2 prn                   char(4),
        2 kcb                   pointer,
        2 numkcbs               fixed bin(7),
        2 extra(3)              fixed bin(7),
        2 identifier            char(32) var, /* init to symbol name of file */
        2 rab,
                3 rab$b_bid     fixed bin(7),   /* init to 1 */
                3 rab$b_bln     fixed bin(7),   /* init to 68 */
                3 rab$w_isi     fixed bin(15),
                3 rab$l_rop(0:31) bit,
                3 rab$l_sts     fixed bin(31),
                3 rab$l_stv     fixed bin(31),
                3 rab$w_rfa(2)  fixed bin(31),
                3 rab$l_ctx     fixed bin(31),
                3 rab$w_extra   fixed bin(15),
                3 rab$b_rac     fixed bin(7),
                3 rab$b_tmo     fixed bin(7),
                3 rab$w_usz     fixed bin(15),
                3 rab$w_rsz     fixed bin(15),
                3 rab$l_ubf     pointer,
                3 rab$l_rbf     pointer,
                3 rab$l_rhb     pointer,
                3 rab$l_kbf     pointer,
                3 rab$b_ksz     fixed bin(7),
                3 rab$b_krf     fixed bin(7),
                3 rab$b_mbf     fixed bin(7),
                3 rab$b_mbc     fixed bin(7),
                3 rab$l_bkt     fixed bin(31),
                3 rab$l_fab     pointer,
                3 rab$l_extra   fixed bin(31),

        2 fab,
                3 fab$b_bid     fixed bin(7),   /* init to 3 */
                3 fab$b_bln     fixed bin(7),   /* init to 80 */
```

```
            3 fab$w_ifi      fixed bin(15),
            3 fab$l_fop(0:31) bit,
            3 fab$l_sts      fixed bin(31),
            3 fab$l_stv      fixed bin(31),
            3 fab$l_alq      fixed bin(31),
            3 fab$w_deq      fixed bin(15),
            3 fab$b_fac(0:7) bit,
            3 fab$b_shr(0:7) bit,
            3 fab$l_ctx      fixed bin(31),
            3 fab$b_rtv      fixed bin(7),
            3 fab$b_org      fixed bin(7),
            3 fab$b_rat(0:7) bit,
            3 fab$b_rfm      fixed bin(7),
            3 fab$l_jnl      fixed bin(31),
            3 fab$l_xab      pointer,
            3 fab$l_nam      pointer,
            3 fab$l_fna      pointer,
            3 fab$l_dna      pointer,
            3 fab$b_fns      fixed bin(7),
            3 fab$b_dns      fixed bin(7),
            3 fab$w_mrs      fixed bin(15),
            3 fab$l_mrn      fixed bin(31),
            3 fab$w_bls      fixed bin(15),
            3 fab$b_bks      fixed bin(7),
            3 fab$b_fsz      fixed bin(7),
            3 fab$l_dev      fixed bin(31),
            3 fab$l_sdc      fixed bin(31),
            3 fab$l_extra(2) fixed bin(31),
      2 nam,
            3 nam$b_bid      fixed bin(7),
            3 nam$b_bln      fixed bin(7),
            3 nam$b_rss      fixed bin(7),
            3 nam$b_rsl      fixed bin(7),
            3 nam$l_rsa      pointer,
            3 nam$w_extra    fixed bin(15),
            3 nam$b_ess      fixed bin(7),
            3 nam$b_esl      fixed bin(7),
            3 nam$l_esa      pointer,
            3 nam$l_rlf      fixed bin(31),
            3 nam$t_dvi      char(22),
            3 nam$w_did      fixed bin(15),
            3 nam$w_did_seq  fixed bin(15),
            3 nam$w_did_rvn  fixed bin(15),
            3 nam$l_wcc      fixed bin(31),
            3 nam$l_fnb(0:31) bit,

      2 esa                  char(128),
      2 fcb_condit(5)        fixed bin(31),
      2 fcb_end              fixed bin(7); /* envir starts here */

/* bit offsets for attr */
%replace atr_v_eof           by 0;
%replace atr_v_opened        by 1;
%replace atr_v_comma_exp     by 2;
%replace atr_v_recur         by 3;
%replace atr_v_update        by 4;
```

```
%replace atr_v_output           by 5;
%replace atr_v_input            by 6;
%replace atr_v_print            by 7;
%replace atr_v_keyed            by 8;
%replace atr_v_direct           by 9;
%replace atr_v_seql             by 10;
%replace atr_v_stream           by 11;
%replace atr_v_record           by 12;
%replace atr_v_scalvar          by 13;
%replace atr_v_app              by 14;
%replace atr_v_recidacc         by 15;
%replace atr_v_indexed          by 16;
%replace atr_v_bfall            by 17;
%replace atr_v_currec           by 18;
%replace atr_v_delete           by 19;
%replace atr_v_write            by 20;
%replace atr_v_app_comma        by 21;
%replace atr_v_blockio          by 22;
%replace atr_v_string           by 23;
%replace atr_v_vcha             by 24;
%replace atr_v_virgin           by 25;

/* constants and bit offsets for fab */
%replace fab$v_mxv              by 1;
%replace fab$v_sup              by 2;
%replace fab$v_tmp              by 3;
%replace fab$v_tmd              by 4;
%replace fab$v_dfw              by 5;
%replace fab$v_sqo              by 6;
%replace fab$v_rwo              by 7;
%replace fab$v_pos              by 8;
%replace fab$v_wck              by 9;
%replace fab$v_nef              by 10;
%replace fab$v_rwc              by 11;
%replace fab$v_dmo              by 12;
%replace fab$v_spl              by 13;
%replace fab$v_scf              by 14;
%replace fab$v_dlt              by 15;
%replace fab$v_nfs              by 16;
%replace fab$v_ufo              by 17;
%replace fab$v_ppf              by 18;
%replace fab$v_inp              by 19;
%replace fab$v_ctg              by 20;
%replace fab$v_cbt              by 21;
%replace fab$v_jnl              by 22;
%replace fab$v_rck              by 23;
%replace fab$v_nam              by 24;
%replace fab$v_cif              by 25;
%replace fab$v_ufm              by 26;
%replace fab$v_esc              by 27;
%replace fab$v_tef              by 28;
%replace fab$v_ofp              by 29;
%replace fab$v_kfo              by 30;

%replace fab$v_put              by 0;
%replace fab$v_get              by 1;
```

```
%replace fab$v_del              by 2;
%replace fab$v_upd              by 3;
%replace fab$v_trn              by 4;
%replace fab$v_bio              by 5;
%replace fab$v_bro              by 6;
%replace fab$v_exe              by 7;
%replace fab$v_shrput           by 0;
%replace fab$v_shrget           by 1;
%replace fab$v_shrdel           by 2;
%replace fab$v_shrupd           by 3;
%replace fab$v_mse              by 4;
%replace fab$v_nil              by 5;
%replace fab$v_upi              by 6;
%replace fab$c_seq              by 0;
%replace fab$c_rel              by 16;
%replace fab$c_idx              by 32;
%replace fab$c_hsh              by 48;
%replace fab$v_ftn              by 0;
%replace fab$v_cr               by 1;
%replace fab$v_prn              by 2;
%replace fab$v_blk              by 3;
%replace fab$c_rfm_dflt         by 2;
%replace fab$c_udf              by 0;
%replace fab$c_fix              by 1;
%replace fab$c_var              by 2;
%replace fab$c_vfc              by 3;
%replace fab$c_maxrfm           by 3;
%replace fab$c_bid              by 3;
%replace fab$c_bln              by 80;

/* constants and bit offsets for rab */
%replace rab$c_bid                by 1;
%replace rab$c_bln                by 68;
%replace rab$c_seq                by 0;
%replace rab$c_key                by 1;
%replace rab$c_rfa                by 2;
%replace rab$v_asy                by 0;
%replace rab$v_tpt                by 1;
%replace rab$v_uif                by 4;
%replace rab$v_mas                by 5;
%replace rab$v_fdl                by 6;
%replace rab$v_hsh                by 7;
%replace rab$v_eof                by 8;
%replace rab$v_rah                by 9;
%replace rab$v_wbh                by 10;
%replace rab$v_bio                by 11;
%replace rab$v_loa                by 13;
%replace rab$v_lim                by 14;
%replace rab$v_loc                by 16;
%replace rab$v_wat                by 17;
%replace rab$v_ulk                by 18;
%replace rab$v_rlk                by 19;
%replace rab$v_nlk                by 20;
%replace rab$v_kge                by 21;
%replace rab$v_kgt                by 22;
%replace rab$v_nxr                by 23;
```

```
%replace rab$v_rne              by 24;
%replace rab$v_tmo              by 25;
%replace rab$v_cvt              by 26;
%replace rab$v_rnf              by 27;
%replace rab$v_pta              by 29;
%replace rab$v_pmt              by 30;
%replace rab$v_cco              by 31;

/* constants for nam */
%replace nam$c_dvi      by 16;
%replace nam$c_bid      by 2;
%replace nam$c_bln      by 56;
```

PLICASERR
LIS

PLICONDIT
LIS

DATDEF
SDL

FILEDEF
IN

PLIRTDEF
MAR

PLICHRSTR
LIS

PLICHAR
LIS

PLICLOSE
LIS

PLIRTL

PLIFILDSP
IN

PLIBYTSIZ
LIS

PLIRTL
MAP

ENVCODES
IN

PLIBIT
LIS