DRIVER

```
XX        XX    GGGGGGG   DDDDDDD    EEEEEEEEEE   FFFFFFFFFF
XX        XX    GGGGGGG   DDDDDDD    EEEEEEEEEE   FFFFFFFFFF
XX        XX   GG         DD     DD  EE           FF
XX        XX   GG         DD     DD  EE           FF
  XX    XX     GG         DD     DD  EE           FF
  XX    XX     GG         DD     DD  EE           FF
    XX         GG         DD     DD  EEEEEEEE     FFFFFFFF
    XX         GG         DD     DD  EEEEEEEE     FFFFFFFF
  XX    XX     GG  GGGGG  DD     DD  EE           FF
  XX    XX     GG  GGGGGG DD     DD  EE           FF
XX        XX   GG     GG  DD     DD  EE           FF          ....
XX        XX   GG     GG  DD     DD  EE           FF          ....
XX        XX    GGGGGG    DDDDDDD    EEEEEEEEEE   FF          ....
XX        XX    GGGGGG    DDDDDDD    EEEEEEEEEE   FF          ....
```

```
MM        MM   DDDDDDD    LL
MM        MM   DDDDDDD    LL
MMMM    MMMM   DD     DD  LL
MMMM    MMMM   DD     DD  LL
MM  MM  MM MM  DD     DD  LL
MM  MM  MM MM  DD     DD  LL
MM      MM MM  DD     DD  LL
MM      MM     DD     DD  LL
MM      MM     DD     DD  LL
MM      MM     DD     DD  LL
MM      MM     DD     DD  LL
MM      MM     DD     DD  LL
MM      MM     DDDDDDD    LLLLLLLLLL
MM      MM     DDDDDDD    LLLLLLLLLL
```

```
; XGDEF.MDL - System definitions for the XGDRIVER not included in LIB.MLB

; Version:        'V04-000'

;**************************************************************************
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;++

; Facility VAX/VMS System Macro Library

; ABSTRACT:

;       This file contains the MDL file for the XGDRIVER for those definitions
;       not included in LIB.MLB.

;--

; AUTHOR: M. M. Dumont          CREATION DATE: 1-Apr-1981

; Modified by:

;       MMD0309          Meg Dumont,      16-Jul-1984  15:43
;                  Remove XGDEF to make it part of LIB.MLB.

;       MMD0208          Meg Dumont,      8-Dec-1983  13:02
;              Add some comments

;       MMD0001 M. M. Dumont                  13-Oct-1982

;       Add definitions for LAPB and DDCMP protocols.
```

```
;+
;
; LAPB - Data structure for the buffer allocated when the xgdriver is
;        running in LAPB mode.
;
;-

        $STRUCT  LAPB
        F        HDR,L,3                 ; 3 longwords for the buffer header
        L        HDRLEN                  ; The header length
        F        .L,1                    ; reserved
; Please note that the following field is necessary because the XMTER
; in the XGDRIVER expects this field to be there. It is only useful
; however when the driver is running DDCMP mode.
;
        F        XQCNT,B                 ; Count of messages queued
        F        .B,1                    ; Reserved
        L        ERRSTRT                 ; Start of the error counters
        F        DEITYP,W                ; Data errors inbound
        F        DEIBC,W                 ; Data error inbound bit counter
        V        <M
                 IHCRC,,,M               ; Inbound header CRC error
                 IDCRC,,,M               ; Inbound data CRC error
                 >
        F        DEI,B                   ; Data error inbound counter
        L        ERREND                  ; End of the error counters
        F        .B,1                    ; reserved
        F        .L,2                    ; reserved
; The following fields must appear in this place in the LAPB buffer. The reason
; is that the xgdriver expects to transmit all IO's from a given queue. The
; queue it expects to use is at this offset in the DDCMP definitions. There
; is an ASSUME statement which will break in the driver if this is not the
; case. Also remember that DDCMP has two transmit queues, one for control
; messages and one for data messages.
;
        F        XMTQ,Q                  ; List head for the XMTQ
        F        CLEANQ,Q                ; List head for the CLEAN queue
        F        BLANK,Q                 ; End of LAPB XMT QUEUES
        L        LENGTH
        E
```

```
;+
; BISYNC- Data structure for the buffer allocated when the xgdriver is
;          running in BISYNC mode.
;-

        $STRUCT BISYNC
        F       HDR,L,3               ; 3 longwords for the buffer header
        L       HDRLEN                ; the header length
        F       RCV_INDEX,W           ; Current index into RCV buffer
        F       STATUS,W              ; Status word
        V       <M
                RCV_COMPLETE,,,M      ; Receive completed posted to user
                TIMER_RUNNING,,,M     ; TQE is running
                >

;
; See explanation in LAPB
;

        F       XQCNT,B               ; Count of messages xmted
        F       DROP_RCV,W            ; Count of RCVs dropped to large for buff
        F        ,B,1                 ; resvered
        F       INIT_STATE_INFO,Q     ; Initial state information
        F       RCV_BUFFER,A          ; Device RCV buffer address

; The following fields must appear in this place in the BISYNC buffer. For
; partly the same reason as LAPB except that we can not queue messages to the
; same queues. The reason we can not use the same queues is that BISYNC
; can run in HALF duplex mode. In order to be consistent with half
; duplex mode for DDCMP both modes must queue the messages to the same
; queue, the ddcmp XMTQ and the bisync XMTQ are made the same queue.

        F       BLANK,Q               ; spare queue (ddcmp ctlq and lapb xmtq)
        F       CLEANQ,Q              ; Bisync CLEANQ
        F       XMTQ,Q                ; Bisync XMTQ
        F       TQE,L,15              ; Buffer for TQE
        L       LENGTH
        E
```

XWDRIVER
MAP

RTTDRIVER
MAP

XADRIVER
MAP

TMDRIVER
MAP

XFDRIVER
MAP

TUDRIVER
MAP

XIDRIVER
MAP

MBXDRIVER
MAP

PUDRIVER
MAP

PADRIVER
MAP

XEDRIVER
MAP

XQDRIVER
MAP

DDCMPDEF
MDL

XGDEF
MDL

TFDRIVER
MAP

XDDRIVER
MAP

TSDRIVER
MAP

XGDRIVER
MAP

XMDRIVER
MAP

DUTUMAC
MAR

NODRIVER
MAP