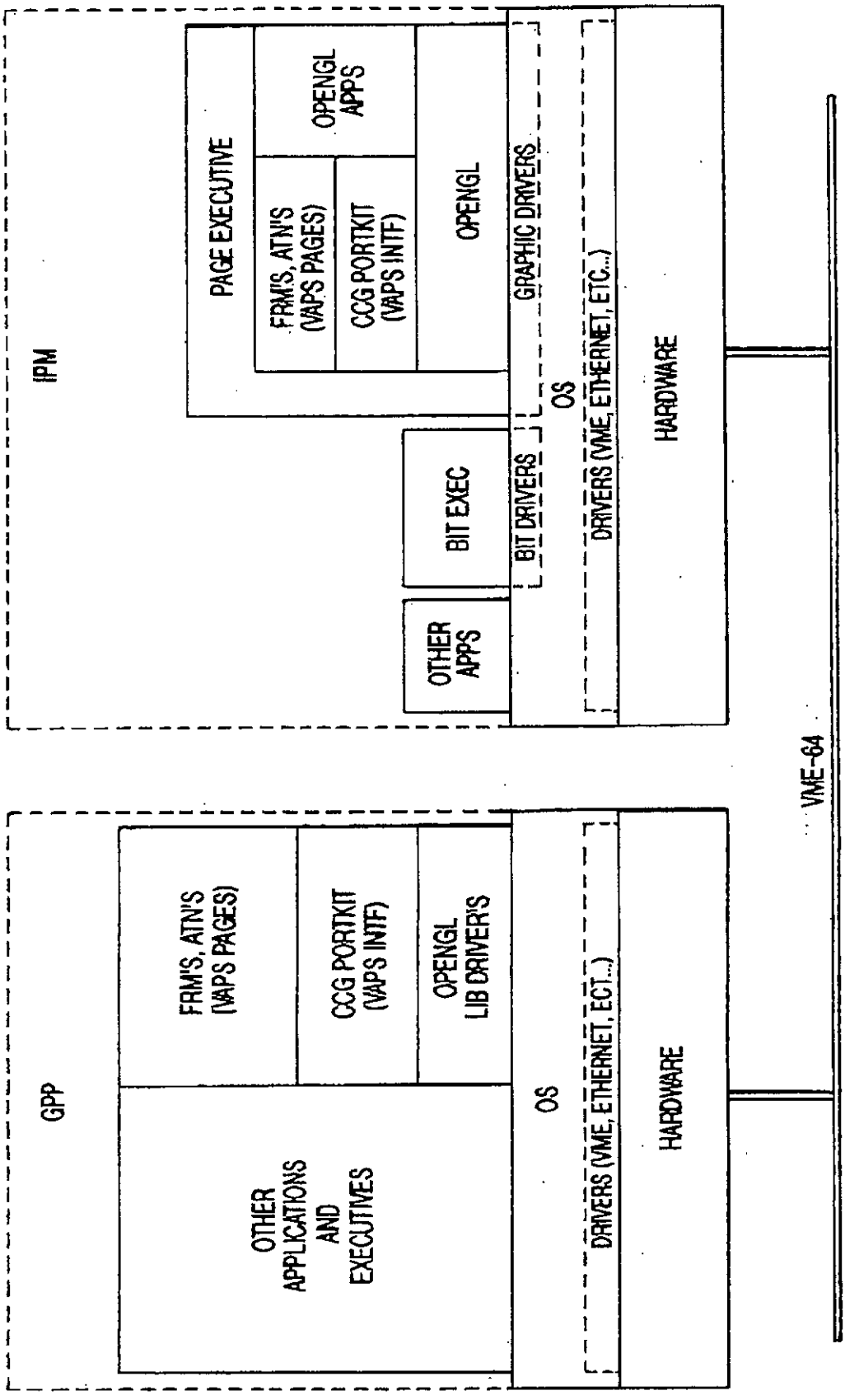

IPM
PAGE EXECUTIVE
FRM'S, ATN'S (VAPS PAGES)
CCG PORTKIT (VAPS INTF)
OPENGL APPS
OPENGL
OTHER APPS
BIT EXEC
BIT DRIVERS
GRAPHIC DRIVERS
OS
DRIVERS (VME, ETHERNET, ETC...)
HARDWARE
VME-64
GPP
FRM'S, ATN'S (VAPS PAGES)
CCG PORTKIT (VAPS INTF)
OPENGL LIB DRIVER'S
OTHER APPLICATIONS AND EXECUTIVES
OS
DRIVERS (VME, ETHERNET, ECT...)
HARDWARE

FIG-1

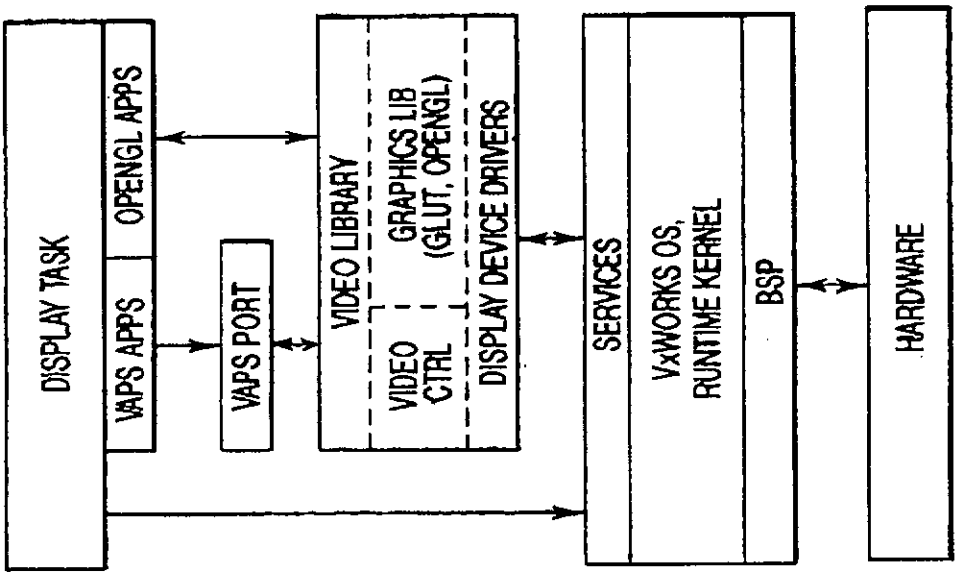
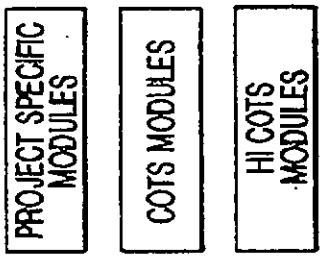

DISPLAY TASK
VAPS APPS
OPENGL APPS
VAPS PORT
VIDEO LIBRARY
VIDEO CTRL
GRAPHICS LIB (GLUT, OPENGL)
DISPLAY DEVICE DRIVERS
SERVICES
VxWORKS OS, RUNTIME KERNEL
BSP
HARDWARE

FIG-2


PROJECT SPECIFIC MODULES
COTS MODULES
HI COTS MODULES

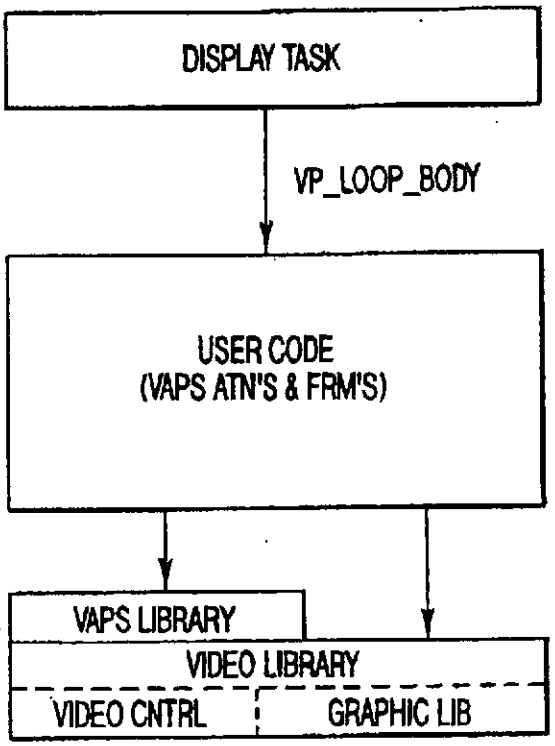

DISPLAY TASK
VP_LOOP_BODY
USER CODE
(VAPS ATN'S & FRM'S)
VAPS LIBRARY
VIDEO LIBRARY
VIDEO CNTRL
GRAPHIC LIB

FIG-3

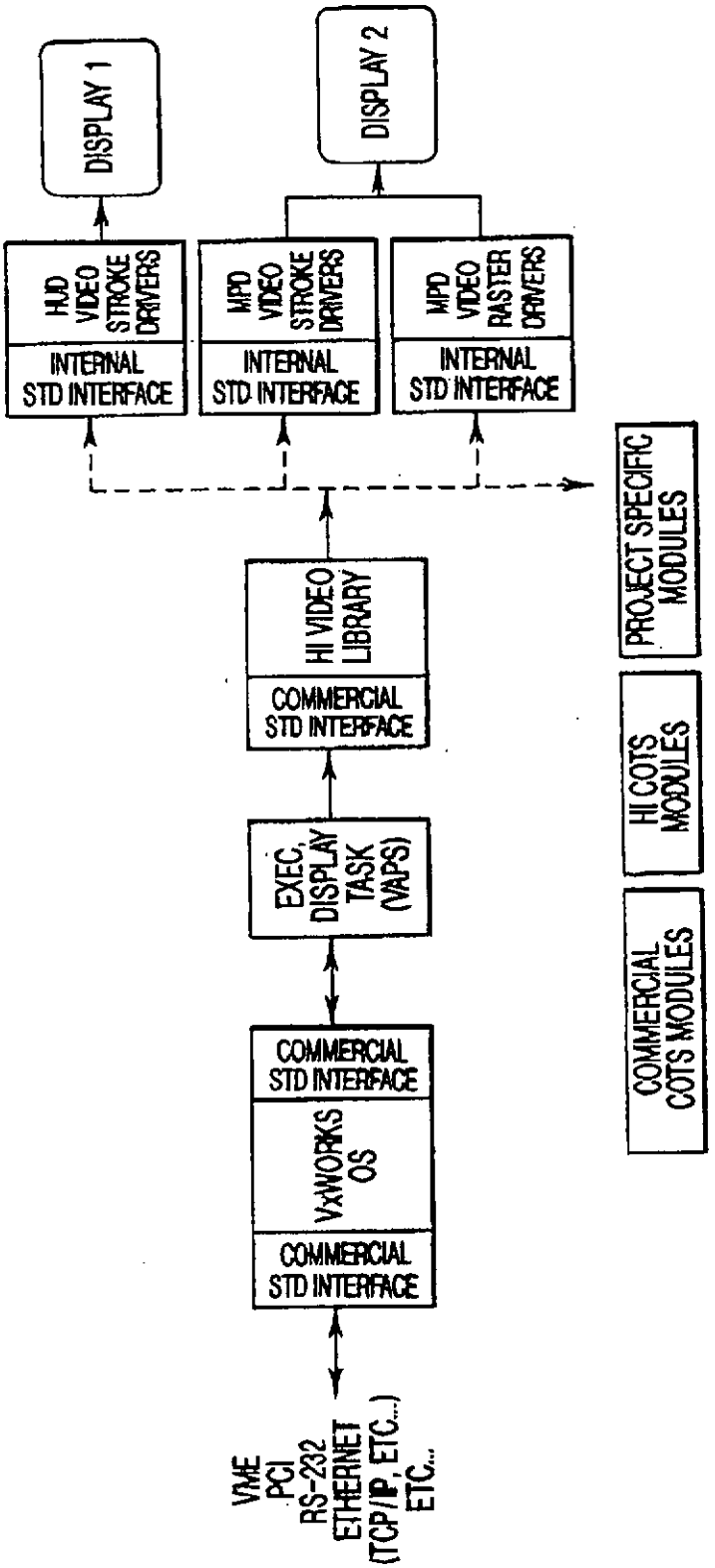

DISPLAY 1
DISPLAY 2
HUD VIDEO STROKE DRIVERS
MPD VIDEO STROKE DRIVERS
MPD VIDEO RASTER DRIVERS
INTERNAL STD INTERFACE
INTERNAL STD INTERFACE
INTERNAL STD INTERFACE
HI VIDEO LIBRARY
COMMERCIAL STD INTERFACE
EXEC, DISPLAY TASK (VAPS)
COMMERCIAL STD INTERFACE
VxWORKS OS
COMMERCIAL STD INTERFACE
VME
PCI
RS-232
ETHERNET
(TCP/IP, ETC...)
ETC...
PROJECT SPECIFIC MODULES
HI COTS MODULES
COMMERCIAL COTS MODULES

FIG-4

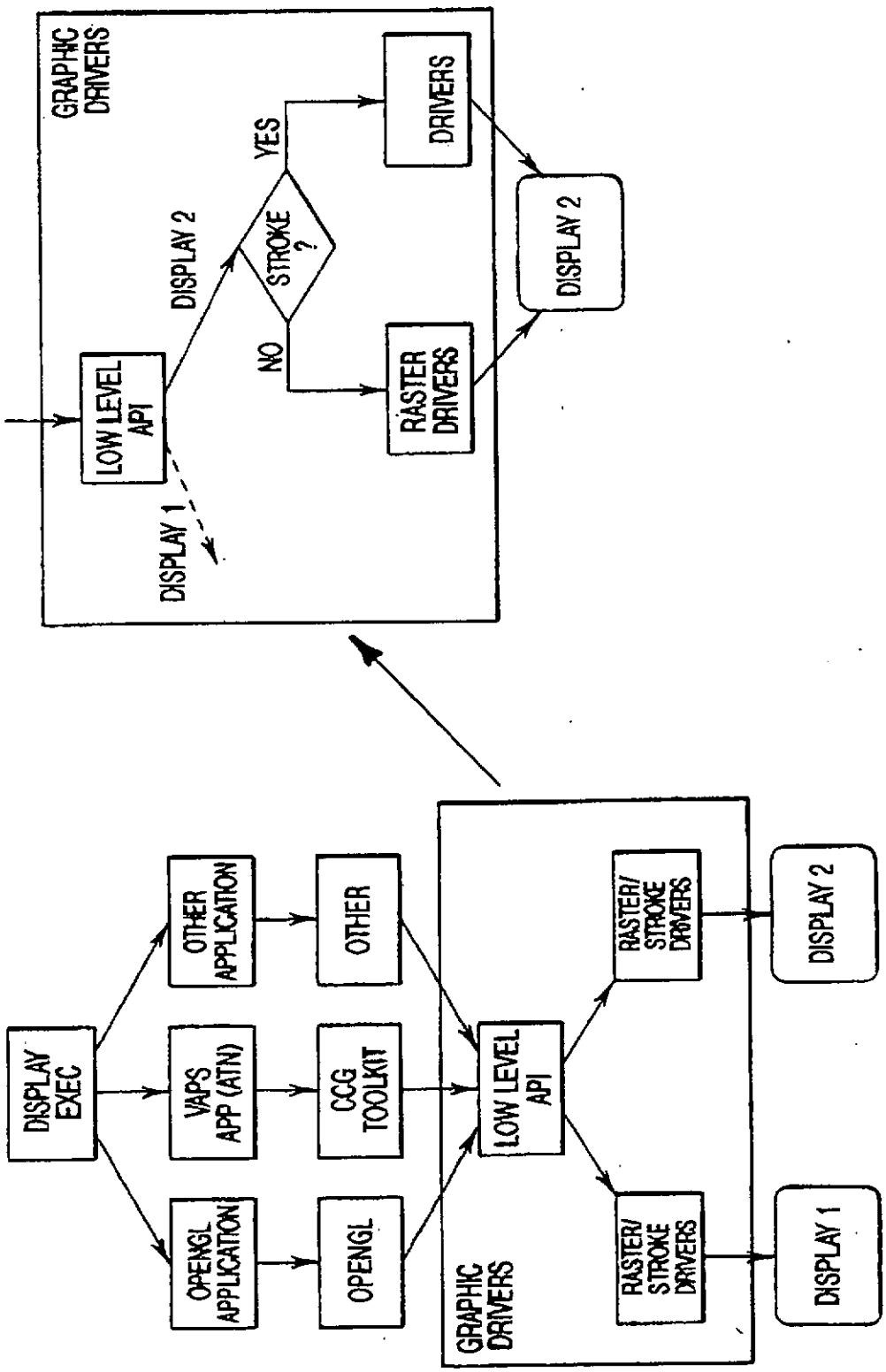

GRAPHIC DRIVERS
LOW LEVEL API
DISPLAY 1
DISPLAY 2
STROKE ?
YES
NO
DRIVERS
RASTER DRIVERS
DISPLAY 2
DISPLAY EXEC
OTHER APPLICATION
VAPS APP (ATN)
OPENGL APPLICATION
OTHER
CCG TOOLKIT
OPENGL
GRAPHIC DRIVERS
LOW LEVEL API
RASTER/ STROKE DRIVERS
RASTER/ STROKE DRIVERS
DISPLAY 2
DISPLAY 1

FIG-5

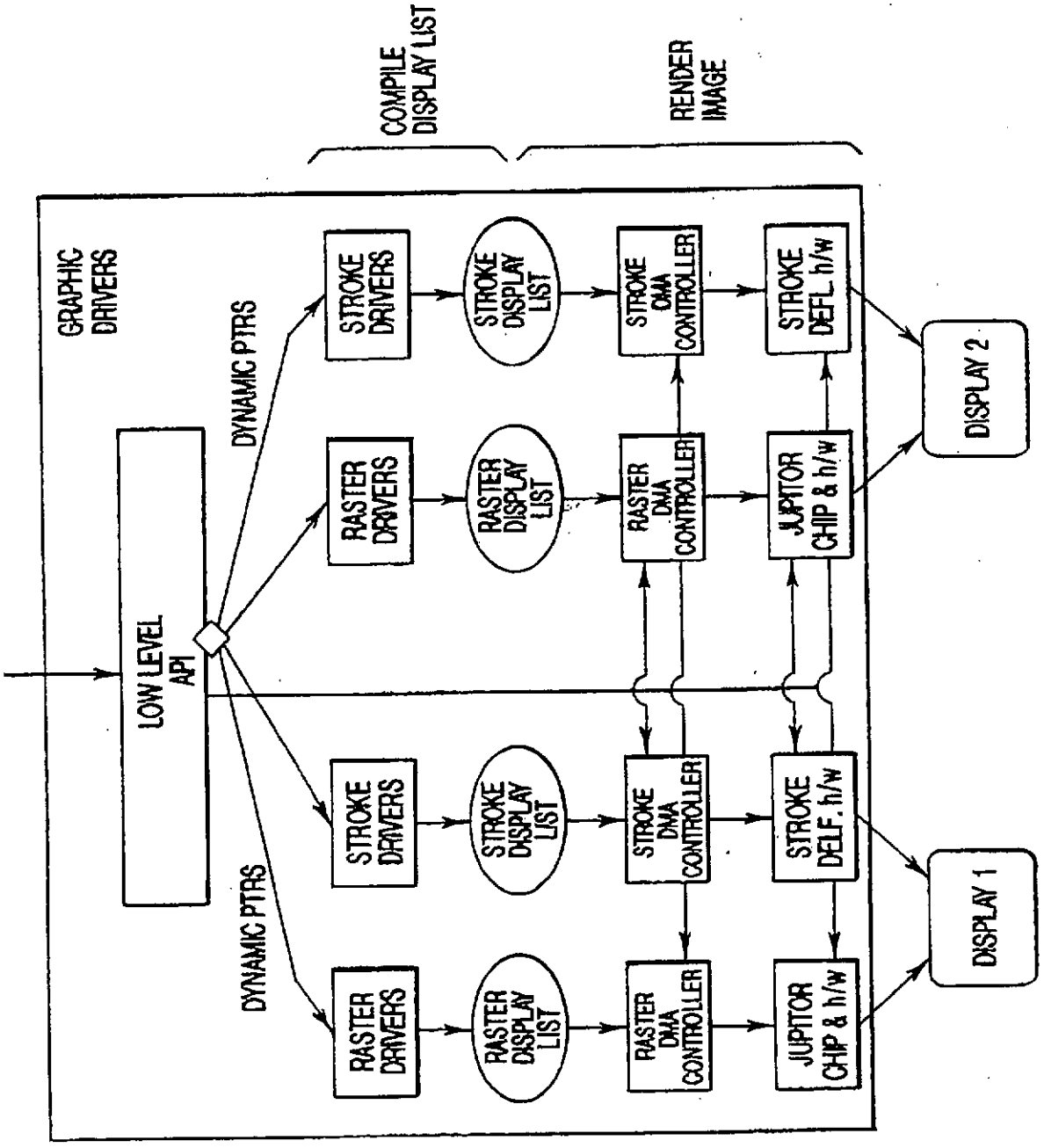

COMPILE DISPLAY LIST
RENDER IMAGE
GRAPHIC DRIVERS
LOW LEVEL API
DYNAMIC PTRS
DYNAMIC PTRS
STROKE DRIVERS
RASTER DRIVERS
STROKE DRIVERS
RASTER DRIVERS
STROKE DISPLAY LIST
RASTER DISPLAY LIST
STROKE DISPLAY LIST
RASTER DISPLAY LIST
STROKE DMA CONTROLLER
RASTER DMA CONTROLLER
STROKE DMA CONTROLLER
RASTER DMA CONTROLLER
STROKE DEFL h/w
JUPITOR CHIP & h/w
STROKE DEFL. h/w
JUPITOR CHIP & h/w
DISPLAY 2
DISPLAY 1

FIG-6

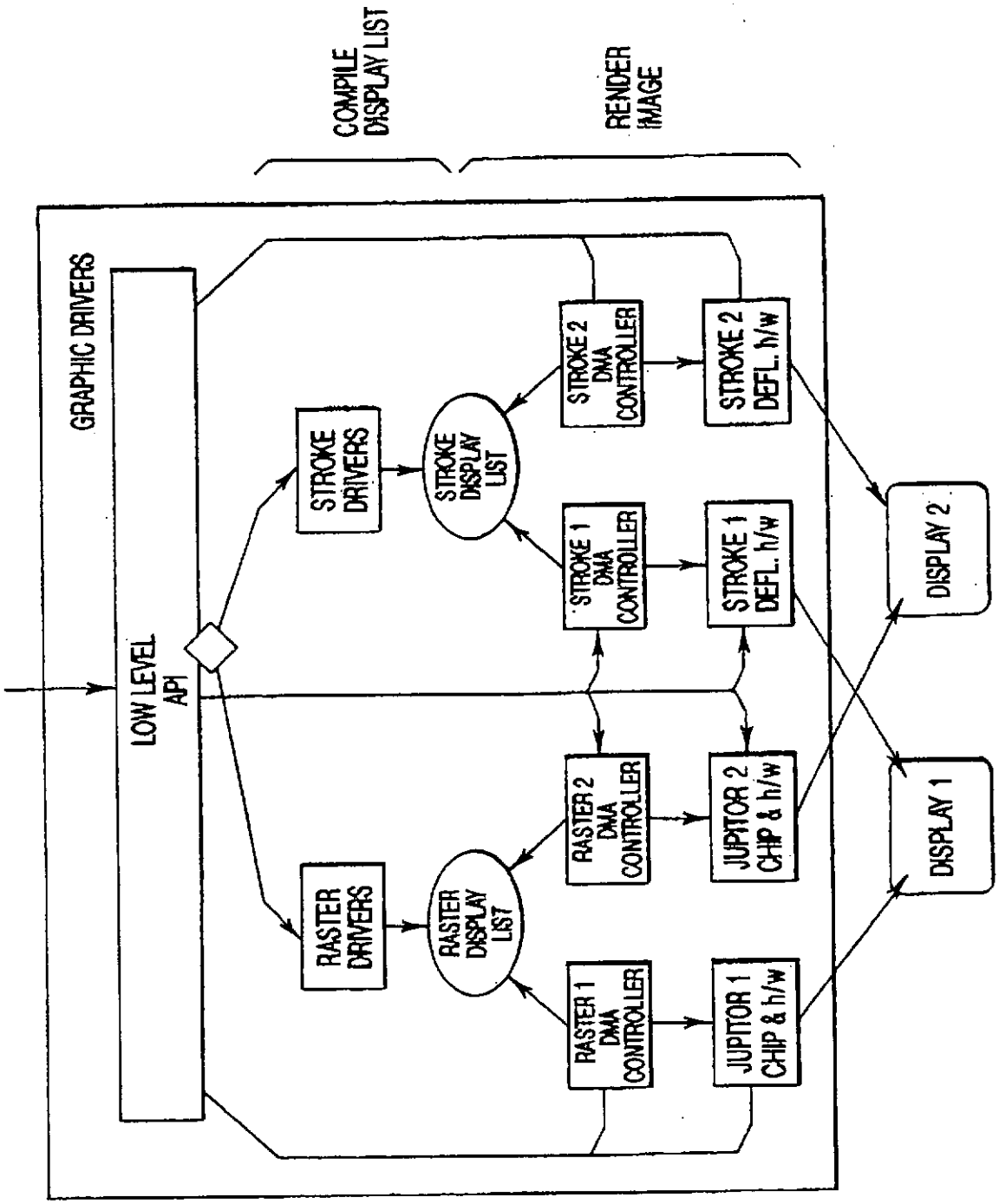

COMPILE DISPLAY LIST
RENDER IMAGE
GRAPHIC DRIVERS
LOW LEVEL API
STROKE DRIVERS
STROKE DISPLAY LIST
STROKE 2 DMA CONTROLLER
STROKE 2 DEFL. h/w
STROKE 1 DMA CONTROLLER
STROKE 1 DEFL. h/w
RASTER DRIVERS
RASTER DISPLAY LIST
RASTER 2 DMA CONTROLLER
JUPITOR 2 CHIP & h/w
RASTER 1 DMA CONTROLLER
JUPITOR 1 CHIP & h/w
DISPLAY 2
DISPLAY 1

FIG-7

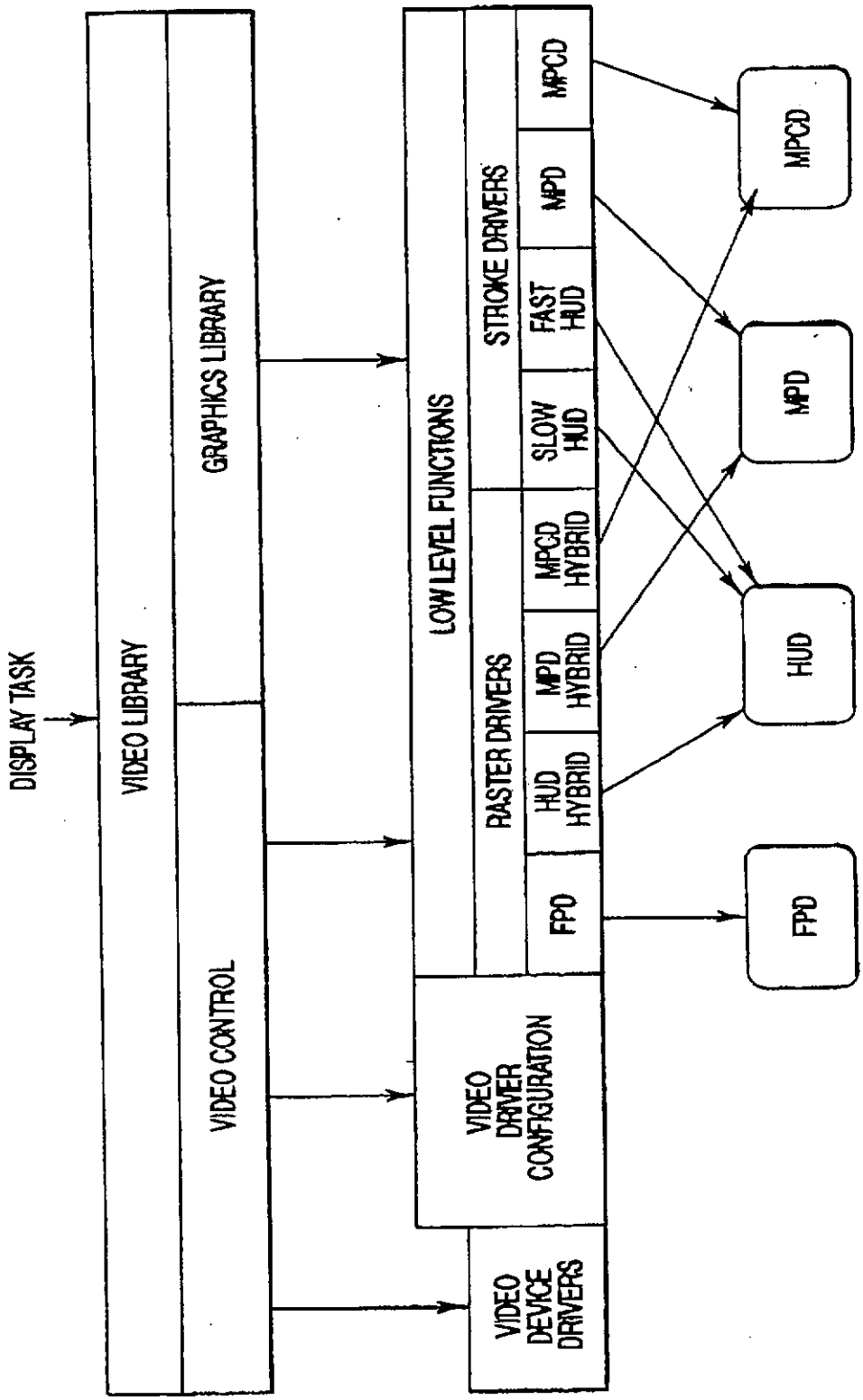

DISPLAY TASK
VIDEO LIBRARY
GRAPHICS LIBRARY
VIDEO CONTROL
VIDEO DEVICE DRIVERS
VIDEO DRIVER CONFIGURATION
LOW LEVEL FUNCTIONS
RASTER DRIVERS
STROKE DRIVERS
FPD
HUD HYBRID
MPD HYBRID
MPCD HYBRID
SLOW HUD
FAST HUD
MPD
MPCD
FPD
HUD
MPD
MPCD

FIG-8

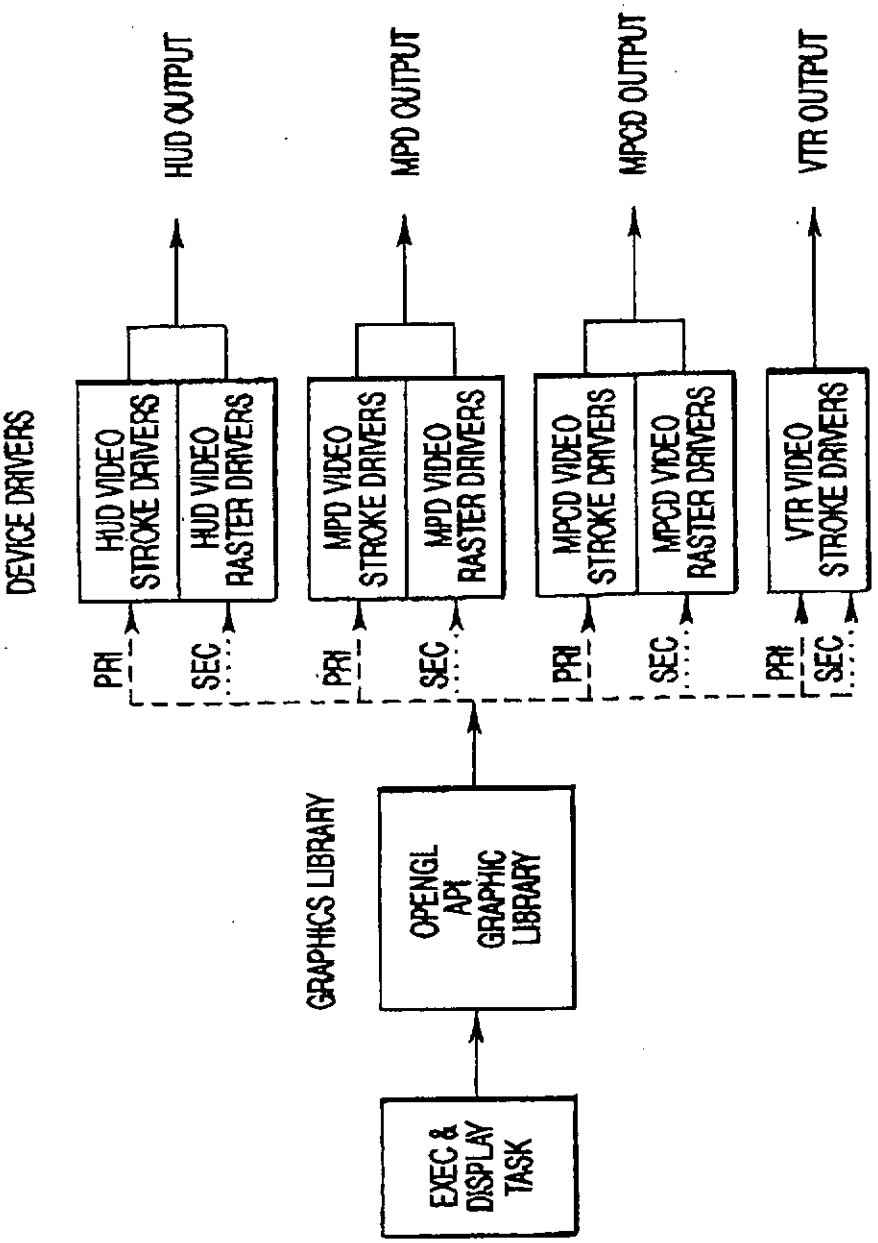

EXEC & DISPLAY TASK
GRAPHICS LIBRARY
OPENGL API GRAPHIC LIBRARY
PRI
SEC
PRI
SEC
PRI
SEC
PRI
SEC
DEVICE DRIVERS
HUD VIDEO STROKE DRIVERS
HUD VIDEO RASTER DRIVERS
MPD VIDEO STROKE DRIVERS
MPD VIDEO RASTER DRIVERS
MPCD VIDEO STROKE DRIVERS
MPCD VIDEO RASTER DRIVERS
VTR VIDEO STROKE DRIVERS
HUD OUTPUT
MPD OUTPUT
MPCD OUTPUT
VTR OUTPUT

FIG-9

10 JUN 2004

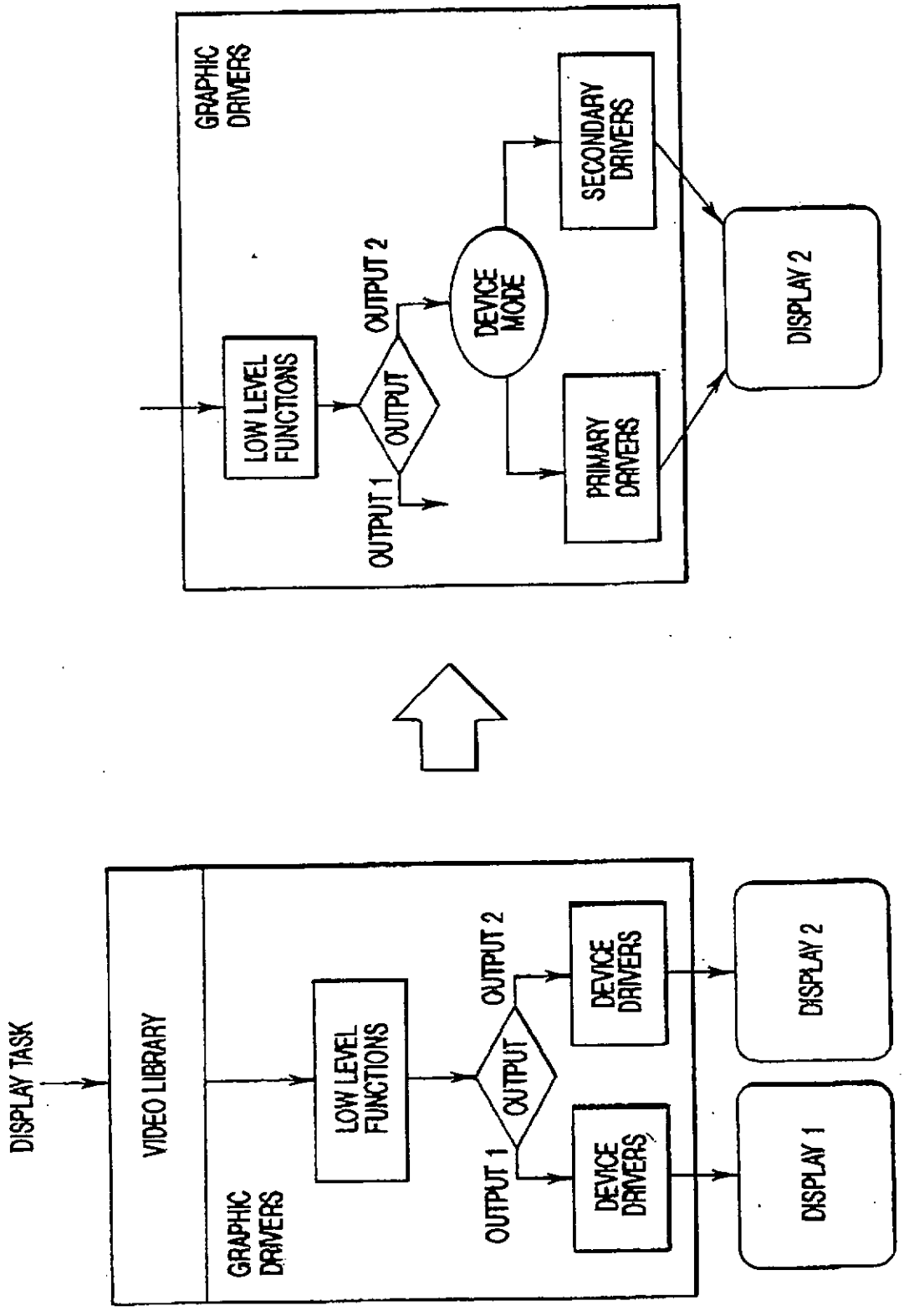


FIG-10