Software Product Description

PRODUCT NAME: DECview3D for VMS, Version 2.1 **SPD 26.95.05**

DESCRIPTION

DECview3D is a software tool used for display, review, markup, analysis and manipulation of engineering graphics created by CAD (Computer Aided Design) packages. It combines data translation, snapshot generation and LiveLinks to DECwrite Compound Document Editor. DECview3D can be used to integrate engineering graphics into other applications, or as a standalone tool for display and review of those graphics.

DECview3D runs under VMS DECwindows and adheres to the *XUI Style Guide*. It has the same look and feel as other Digital developed DECwindows applications. DECview3D also supports graphics terminals such as VT240/241 and VT330/340.

Features

Input Translation

DECview3D can read and translate files that conform to the following formats:

- IGES (Initial Graphics Exchange Specification)
  DECview3D reads and translates files that conform to the IGES V4.0 specification and contain those entity types and forms supported by DECview3D.

- HP-GL® Plot Files
  DECview3D reads and translates HPGL 7475 Plot formatted files. All non-shading plotting commands and all non-plotter specific initialization and settings commands are supported.
- CalComp® 960 Files
  DECview3D reads and translates CalComp 960 Plot formatted files.

The list of supported IGES entities, HPGL and CalComp 960 plot commands is provided in the *DECview3D Reference Manual.*

Display and Manipulation Features

DECview3D allows the user to create one or many LAYOUTS in a DECview3D file. A LAYOUT displays the graphics that have been translated into DECview3D and keeps a record of how they were manipulated, sized, positioned or annotated during any working session. Users can navigate through the LAYOUTS contained in a DECview3D file and control the display of the LAYOUT with PAN and ZOOM operations.

Graphics that are translated into DECview3D are displayed in VIEWPORTS on a layout. Each layout can contain one or many VIEWPORTS. Users control the display of the graphics using a selection of PAN, ZOOM and ROTATE operations. Any PAN, ZOOM and ROTATE combination can be stored in a user defined VIEW. User defined VIEWS can be added to the list of predefined VIEWS which are available in DECview3D. Predefined views are FRONT, BACK, LEFT, RIGHT, TOP, BOTTOM, ISOMETRIC and TRIMETRIC. The SELECT VIEW command allows the user to apply defined views to a graphic in DECview3D.

The BLANK ENTITY function is used to simplify the display of complex 3D wireframe graphics by removing part entities from the display. LAYER OPERATIONS allow different layers contained in the original CAD graphic to be switched off or on.

Markup Operations

Users can annotate or markup layouts with text information and graphic objects and symbols. These markups can be moved, deleted, copied, or customized by changing specific markup attributes.

Color Support

Files translated into DECview3D display the original application color definition limited by the capability of the display device. The DECview3D color table can be changed by the user to alter the display of the translated file. Color changes are reflected in the snapshot file formats, limited by the capability of the output device.

Analysis Functions

Users can obtain geometry information from the drawing entities which can be displayed and reviewed, stored in a text file, mailed to other users, or included as a text annotation on a DECview3D layout. The SELECTION FILTER can be customized to help users control the scope of the entity search.

- Part Entity Analysis provides geometry and coordinate information about drawing entites e.g., Lines, Arcs, Polylines.
- Distance provides 3D shortest distance and 2D delta values between selected Lines, Arcs or Point drawing entities.

Snapshot Generation

A SNAPSHOT is a file containing a 2D representation of a specified layout, portion of a layout, or selected viewport. It shows the drawings and any markups the user has added. Snapshot files can be used for producing hardcopies or for integrating into other applications. The following snapshot formats are supported in DECview3D:

- DDIF, Digital's Document Interchange Format
- Sixel
- ReGIS
- HP-GL®
- Interleaf™ ASCII
- GKS-metafile
- CGM
- Tektronix® 4014 protocol
- Encapsulated PostScript®
- Color PostScript
- Color Encapsulated PostScript

User Interface

All DECview3D functions are available through pull down menus or through the Application Command Line interface. The Application Command Line commands can also to used to record the events of a DECview3D session in a script file. Script files can be edited and replayed. Users can create their own script file with an editor and use it within a DECview3D session. Application Command Line commands can be used in initialization files to customize the DECview3D session.

VT Support

On VT 330/340, the mouse is supported as an input device. Both Application Command Line and menu interfaces are supported.

On VT 240/241, user interaction is through the Application Command Line only.

The user interface also features two levels of help:

Menu	Menu Help (located in the Main Menu) provides the user with an overview of DECview3D, its functionality and generic instructions relating to DECview3D formats and commands.
General	General Help (available at the VMS level) provides an overview of the system and instructions to run DECview3D.

LiveLink

DECview3D can be invoked from the LiveLink capability available in DECwrite and DECpresent. With LiveLinks, graphics from DECview3D can become part of a DECwrite document and may be automatically updated when the document is next edited. These updates can be controlled by the user so they occur only when desired. Links from DECwrite to DECview3D can be modified or deleted.

DECview3D supports links to external CAD files. If the user selects the LINK TO GRAPHIC option, this will ensure that the latest version of the external CAD file is always translated whenever the DECview3D Layout file is edited. Links from DECview3D to external CAD files can be modified or deleted.

High-Quality Output

DECview3D provides high-quality output to Digital PostScript printers such as the PrintServer 20 and PrintServer 40. In addition, it supports, the LN03, LN01S, and LN03 PLUS printers.

HARDWARE REQUIREMENTS

VAX, MicroVAX, VAXserver or VAXstation configuration as specified in the System Support Addendum (SSA 26.95.05-x).

SOFTWARE REQUIREMENTS*

For Systems Using Terminals (No DECwindows Interface):

- VMS Operating System

For Workstations Running DECwindows:

- VMS Operating System (and necessary components of VMS DECwindows)

* Refer to the System Support Addendum (SSA 29.95.05-x) for availability and required versions of prerequisite software and for information regarding components of VMS DECwindows

ORDERING INFORMATION

Software Licenses: QL-796**-**
Software Media: QA-796AA-**
Software Documentation: QA-796AA-GZ
Software Product Services: QT-796A*-**

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