Software Product Description

PRODUCT NAME: **CDA Converter Library for OpenVMS Version 2.2** **SPD 31.31.03**

DESCRIPTION

The CDA™ Converter Library is a collection of format converters that allows users of different applications to exchange data. The format converters allow users to exchange document, table, graphic or image files from an application format, so that the files can be read by, and written to different applications and formats.

The CDA Converter Library is used with CDA Run-Time Services, including the CDA Viewer, and CDA compliant applications such as DECwrite™.

Users can convert a file to another format by either of the following methods:

- Select an option from an application menu such as DECwrite, ALL–IN–1™, DECwindows™ mail, CDA Viewer.
- Enter a command at the OpenVMS™ system prompt.

The CDA Converter Library V2.2 is a maintenance release that has been subject to extensive interoperability testing using the most popular PC and Mac® applications.

In addition, this version of the product provides online documentation for default sample option files that users can modify.

CONTENTS OF THE CDA CONVERTER LIBRARY

The CDA converter library consists of input and output converters. These converters may be broadly categorised as follows:

- Word processor format converters
  See Table 1 for an overview of the word processor converters.
- Tabular/spreadsheet format converters
  See Table 2 for an overview of the tabular and spreadsheet converters.
- Image/graphics format converters
  See Table 3 for an overview of the image and graphics converters.

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Table 1
Word Processor Format Converters

Supported Converters	Input and Output	Description
AFS (Alternate Format Syntax for ASCII editors)	Input and output	AFS enables users to edit text in DDIF™ documents on character-cell terminals. The DDIF document contains the following: • The text of the AFS document • Nontext (such as graphics and scanned images) stored in other files • Formatting information stored in a special file, called the companion file AFS documents contain text and markup. AFS documents use tags to denote the start and end of each text segment.
Document Content Architecture /Revisable Format Text (DCA /RFT®)	Input and output	Document Content Architecture (DCA) is the IBM® architecture for converting revisable documents.
Digital™ Standard Runoff (DSR)	Input only	The DSR converter supports Digital Standard Runoff Version 5.0.
DX™ (DEC™ WPS–PLUS™ word processor format)	Input and output	DX is Digital's word processing format for ALL–IN–1.
MacWrite® V1.1	Input and output	Macwrite is a word-processing application that runs on the Apple® Macintosh systems. The MacWrite converter supports MacWrite II Version 1.1.
MS® Word V4.0, V5.0, V5.5 for MS–DOS®	Input and output	Used with Microsoft® Word V4.0, V5.0, V5.5 word processor files.
Rich Text Format (RTF) for Microsoft Word for Microsoft Windows™ (V1.1, 2.0), and Microsoft Word for Macintosh®, V4.0	Input and output	Used with MS Word for MS Windows V1.0, V2.0 (WinWord), and used with MS Word for Macintosh V4.0 (MacWord). Microsoft recommends that RTF is used in these applications when converting to other formats.
roff (Standard UNIX® format)	Input only	The roff converter converts roff documents that use raw roff commands, or one of the standard macro packages to DDIF. The standard macro packages are: man, me, mm, ms, or mu.
SGML (ISO Standard Markup Language)	Input and output	The SGML converter converts Standard Generalised Markup Language format files.
WordPerfect™ for MS–DOS 5.0, 5.1	Input and output	The WordPerfect converter converts a WordPerfect Version 5.0 or 5.1 input file on MS–DOS 3.3 or higher.

Table 1 (Cont.)
Word Processor Format Converters

Supported Converters	Input and Output	Description
WPL (Digital's word processing format for WPS–PLUS)	Input and output	The WPL converter supports WPS–PLUS Version 3.1.

Table 2
Tabular/Spreadsheet Format Converters

Supported Converters	Input and Output	Description
ASCII Field	Input only	The ASCII field converter is similar to the ASCII tabular converter except that it contains formatting information. The field definitions file contains field definitions. A field definition is an ASCII record that contains information specifying how to interpret the input field data and how to encode it into the resulting data. The ASCII field converter reads an ASCII field file and an ASCII field definitions file and combines the information from both files into DTIF™ formatted tables.
ASCII Tabular	Input and output	ASCII tabular files are standard ASCII files in which the data is arranged in tabular format. ASCII tabular files also contain special characters to delimit cells and rows, for example, "," or tab characters. ASCII tabular files do not contain formula or formatting information.
CALCGRD (DECcalc™ binary grid files)	Input only	CALCGRD is a tabular file format for files produced and read by DECcalc Version 3.0A and DECcalc-PLUS™ Version 3.0A. The CALCGRD converter converts the values, formulae, and formatting information in a CALCGRD file to DTIF. The CALCGRD converter does not convert DECcalc files created earlier than Version 3.0A. If you want to convert a file created earlier than Version 3.0A, you must first load and save the file in DECcalc Version 3.0A or DECcalc-PLUS Version 3.0A to update it to a Version 3.0A format.
DIF (Data Interchange Format)	Input only	The DIF files are formatted according to the *DIF Technical Specification* and must contain only characters from the ASCII character set. The DIF cell values cannot exceed 32,767 characters. The DIF converter supports 20/20™ Version 2.4.
WK1 (Lotus® 1-2-3® V2.*)	Input and output	The WK1 converter does not convert Lotus 1-2-3 files that were created with versions earlier than Version 2.0. If you want to convert a file created with versions earlier than Version 2.0, you must first load and save the file in Lotus 1-2-3 and update it to a Version 2.* format. The WK1 converter supports Lotus 1-2-3 Version 2.* binary-encoded format.

Table 2 (Cont.)
Tabular/Spreadsheet Format Converters

Supported Converters	Input and Output	Description
WK3 (Lotus 1-2-3 V3.*)	Input and output	The WK3 format reflects substantial changes included in Lotus 1-2-3 Version 3.*. The WK3 converter supports Lotus 1-2-3 Version 3.* binary-encoded format.

Table 3
Image/Graphics Format Converters

Supported Converters	Input and Output	Description
CGM (Computer Graphics Metafile)	Input and output	CGM is an International Organization for Standardization (ISO) standard that defines a file format for storing and retrieving picture information. The CGM converter supports CGMview® Version 2.0, and Arts & Letters® Version 3.1.
GIF (Graphical Interchange Format)	Input only	GIF is a colour-image transfer protocol popular with PC applications.
Graphics Hardcopy (HP-GL®, SIXEL, PS)	Output only	The Graphics Hardcopy output converter first scans the input file to identify graphic elements that can be converted. The converter identifies and maps the elements to the appropriate GKS functions. The Graphics Hardcopy output converter supports two graphics output categories: raster and vector. The following table shows supported graphics protocols. **Raster Device** / **Vector Devices** Black and white (B&W) Sixel / HP-GL® Color Sixel PostScript® ReGIS™ The Graphics Hardcopy output converter can generate several kinds of final form output using a set of functions within the Graphical Kernel System (DEC GKS™). This allows you to select a different final form by modifying the options file.
MacPaint® (Macintosh bitonal image converter)	Input and output	MacPaint is an image file format used by MacDraw.

Table 3 (Cont.)
Image/Graphics Format Converters

Supported Converters	Input and Output	Description
PICT (MacDraw® image and graphical format)	Input and output	PICT is an image and graphical format used on the Macintosh, and supports files from Claris® MacDraw. PICT converter must find a Macbinary header in the input file. The PICT converter supports MacDraw II Version 1.1.
TIFF (Tagged Image File Format)	Input and output	TIFF is a tagging scheme used for image data conversion. The TIFF converter supports V5.0 of the TIFF standard.

General Restrictions

The converters in the CDA Converter Library do not perform modality conversions such as converting a text file into an image or the reverse.

Converters that support compound formats, such as DDIF, process the text, graphics and images in the input data, but the output format specified by the user limits the conversion process. If the user takes a DDIF document and converts it to ASCII text, any non-text elements are lost because they cannot be represented in the ASCII format. However, the AFS converters can be used to edit a compound document using an ASCII editor. The text file produced by the AFS converter contains tag references to temporary files where the non-text data is stored until the document is reconverted by the AFS output converter to a compound format.

HARDWARE REQUIREMENTS

Processor and/or hardware configurations as specified in the System Support Addendum (SSA 31.31.03-A).

SOFTWARE REQUIREMENTS

The CDA Converter Library V2.2 requires the following:

- OpenVMS Operating System V5.0
- DECimage™ Application Services V2.0 or Version 3.0 (when using TIFF or MacPaint® converters)
- DEC GKS (Runtime System - when using the Graphics Hardcopy converter)
- Digital's Image Applications Services (DAS) V3.0 or later - when using the Graphics Hardcopy converter. DAS V3.0 is distributed as part of the Motif kit.

Note: A version of CDA Run-Time Services is supplied with the Converter Library kit, but DECwindows non-Motif® systems cannot run CDA Run-Time Services V1.0.

For Workstations Running DECwindows V1.0 prior to Motif

The Converter Library installation procedure will not update your CDA Base Services software, if you are running a pre-Motif version of DECwindows. Digital recommends that you upgrade your system to a Motif version of DECwindows. The CDA Converter Library V2.2 is not warranted to run under older versions of CDA. However, if you have a pre-Motif version of DECwindows and cannot upgrade, it is possible that the performance of the CDA Converter Library V2.2 will be adequate to your needs.

ORDERING INFORMATION

- Software Licenses: QL-VZAA*-**
- Software Media: QA-VZAA*-**
- Software Documentation: QA-VZAAA-GZ
- Software Product Services: QT-VZAA*-**

* Denotes variant fields. For additional information on available licenses, services, and media, refer to the appropriate price book.

SOFTWARE LICENSING

This software is furnished under the licensing provisions of Digital Equipment Corporation's Standard Terms and Conditions. For more information about Digital's licensing terms and policies, contact your local Digital office.

Possession, use, or copying of the software described in this publication is authorised only pursuant to a valid written license from Digital or an authorised sublicensor.

License Management Facility Support

This layered product supports the OpenVMS License Management Facility.

License units for this product are allocated on an Unlimited System Use plus Personal Use basis. Each Personal Use License allows one identified individual to use the layered product.

For more information on the License Management Facility, refer to the OpenVMS Operating System Software Product Description (SPD 25.01.xx) or the *License Management Facility* manual of the OpenVMS Operating System documentation set.

SOFTWARE PRODUCT SERVICES

A variety of service options are available from Digital. For more information, contact your local Digital office.

SOFTWARE WARRANTY

Warranty for this software product is provided by Digital with the purchase of a license for the product as defined in the Software Warranty Addendum of this SPD.

System Support Addendum

PRODUCT NAME: CDA Converter Library for OpenVMS Version 2.2 **SSA 31.31.03-A**

HARDWARE REQUIREMENTS

Processors Supported

VAX™:

VAX 4000 Model 100,
VAX 4000 Model 200,
VAX 4000 Model 300,
VAX 4000 Model 400,
VAX 4000 Model 500,
VAX 4000 Model 600

VAX 6000™ Model 200 Series,
VAX 6000 Model 300 Series,
VAX 6000 Model 400 Series,
VAX 6000 Model 500 Series,
VAX 6000 Model 600 Series

VAX 7000 Model 600 Series

VAX 8200™, VAX 8250™, VAX 8300™,
VAX 8350™, VAX 8500™, VAX 8530™,
VAX 8550™, VAX 8600™, VAX 8650,
VAX 8700, VAX 8800, VAX 8810,
VAX 8820™, VAX 8830, VAX 8840,

VAX 9000™ Model 110,
VAX 9000 Model 210,
VAX 9000 Model 300 Series,
VAX 9000 Model 400 Series

VAX 10000 Model 600 Series

VAXft™ Model 110,
VAXft Model 310,
VAXft Model 410,
VAXft Model 610,
VAXft Model 612

VAX–11/730, VAX–11/750™,
VAX–11/780™, VAX–11/785

MicroVAX™:

MicroVAX II™, MicroVAX 2000,
MicroVAX 3100 Model 10, 10E
MicroVAX 3100 Model 20, 20E
MicroVAX 3100 Model 30,
MicroVAX 3100 Model 40,
MicroVAX 3100 Model 80,
MicroVAX 3100 Model 90,
MicroVAX 3300, MicroVAX 3400,
MicroVAX 3500, MicroVAX 3600,
MicroVAX 3800, MicroVAX 3900

VAXstation™:

VAXstation II, VAXstation 2000,
VAXstation 3100 Model 30,
VAXstation 3100 Model 38,
VAXstation 3100 Model 40,
VAXstation 3100 Model 48,
VAXstation 3100 Model 76,
VAXstation 3200, VAXstation 3500,
VAXstation 3520, VAXstation 3540

VAXstation 4000 VLC™,
VAXstation 4000 Model 60,
VAXstation 4000 Model 90,

VAXserver™:

VAXserver 3100, VAXserver 3300,
VAXserver 3400, VAXserver 3500,
VAXserver 3600, VAXserver 3602,
VAXserver 3800, VAXserver 3900

VAXserver 4000 Model 200,
VAXserver 4000 Model 300,
VAXserver 4000 Model 500

VAXserver 6000 Model 210,
VAXserver 6000 Model 220,
VAXserver 6000 Model 310,
VAXserver 6000 Model 320,
VAXserver 6000 Model 410,
VAXserver 6000 Model 420,
VAXserver 6000 Model 510,
VAXserver 6000 Model 520,
VAXserver 6000 Model 610,
VAXserver 6000 Model 620,
VAXserver 6000 Model 630

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Processors Not Supported

MicroVAX I™, VAXstation I, VAX–11/725, VAX–11/782, VAXstation 8000.

Processor Restrictions

A TK50 Tape Drive is required for standalone MicroVAX 2000 and VAXstation 2000 systems.

Disk Space Requirements (Block Cluster Size = 1)

Disk space required for installation:	43,000 blocks
Disk space required for use (permanent):	16,500 blocks

These counts refer to the disk space required on the system disk if you do not have the CDA™ Run-Time Services already installed. The sizes are approximate; actual sizes may vary depending on the user's system environment, configuration, and software options.

OPTIONAL HARDWARE

If the DEC GKS™ runtime system is installed, the Graphics Hardcopy converter can be used to generate the Color and Monochrome Sixel formats and the Hewlett-Packard® Graphics Language (HP-GL®) format. For a list of output devices supporting those formats, refer to the DEC GKS for OpenVMS™ Software Product Description (SPD 26.20.xx).

CLUSTER ENVIRONMENT

This layered product is fully supported when installed on any valid and licensed VAXcluster* configuration without restrictions. The *HARDWARE REQUIREMENTS* sections of this product's Software Product Description and System Support Addendum detail any special hardware required by this product.

* V5.x VAXcluster™ configurations are fully described in the VAXcluster Software Product Description (29.78.xx) and include CI™, Ethernet, and Mixed Interconnect configurations.

SOFTWARE REQUIREMENTS

The CDA Converter Library V2.2 requires the following:

- OpenVMS Operating System V5.0
- DECimage™ Application Services V2.0 or Version 3.0 (when using TIFF or MacPaint® converters)
- DEC GKS V4.2 for OpenVMS (Runtime System - when using the Graphics Hardcopy converter)
- Digital's Image Applications Services (DAS) V3.0 or later - when using the Graphics Hardcopy converter. DAS V3.0 is distributed as part of the Motif kit.

Note: A version of CDA Run-Time Services is supplied with the Converter Library kit, but DECwindows™ non-Motif® systems cannot run CDA Run-Time Services V1.0.

For Workstations Running DECwindows V1.0 prior to Motif

The Converter Library installation procedure will not update your CDA Base Services software, if you are running a pre-Motif version of DECwindows. Digital™ recommends that you upgrade your system to a Motif version of DECwindows. The CDA Converter Library V2.2 is not warranted to run under older versions of CDA. However, if you have a pre-Motif version of DECwindows and cannot upgrade, it is possible that the performance of the CDA Converter Library V2.2 will be adequate to your needs.

OpenVMS Tailoring

The following OpenVMS classes are required for full functionality of this layered product running standalone:

- OpenVMS Required Saveset
- Utilities

For more information on OpenVMS classes and tailoring, refer to the OpenVMS Operating System Software Product Description (SPD 25.01.xx).

OPTIONAL SOFTWARE

DEC GKS V4.2 for OpenVMS (Runtime System)

Note: If the DEC GKS runtime system is installed, the DDIF Graphics Hardcopy converter can be used to generate the HP-GL, Color Sixel, ReGIS™, PostScript® and Monochrome Sixel formats. Refer to the DEC GKS for OpenVMS Software Product Description (SPD 26.20.xx) for a list of output devices that support these formats. If the DEC GKS development or runtime system is not installed, the Graphics Hardcopy converter will not function.

GROWTH CONSIDERATIONS

The minimum hardware/software requirements for any future version of this product may be different from the requirements of the current version.

DISTRIBUTION MEDIA

9-track 1600 BPI Magtape, TK50 Streaming Tape.

This product is also available as part of the OpenVMS Consolidated Software Distribution on CD-ROM.

ORDERING INFORMATION

Software Licenses: QL-VZAA*-**
Software Media: QA-VZAA*-**
Software Documentation: QA-VZAAA-GZ
Software Product Services: QT-VZAA*-**

* Denotes variant fields. For additional information on available licenses, services, and media, refer to the appropriate price book.

The ordering information is valid at time of release. Please contact your local Digital office for the most up-to-date information.