# DVIDECW

**Installation Guide**

**User's Guide**

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**Contents**

# 1  Installation of *DVIDECW*

*DVIDECW* itself can be installed after the command file TEXVIEW.COM is modified to suit the system paths of the local T$_E$Xinstallation. Please perform the following steps to do so:

- in *FileView*, select the Customize/Verbs and Menus option

- enter `TeX Preview` below the 'verb names' box as a new name and click on the 'Enter' button to accept it

- enter the required DCL command for the T$_E$X-Preview entry, e.g. `<path>texview.com`, then click on the 'Enter' button

- select 'Applications' from the 'Menu Names' box and click on 'Add' below the 'Verbs in menu' box

- click on the 'Apply' and 'Ok' buttons to install the entry into the menu bar.

- in *FileView*, select the Customize/File Types option and install the `.DVI` file type

# 2  Operation of *DVIDECW*

## 2.1  Invocation of *DVIDECW*

### 2.1.1  Starting from *DECTERM*

Enter command name, options and filename as described in [] within the *DECTERM* window.

### 2.1.2  Starting from *FileView/DCL Command Window*

Create a *DCL Command Window* by clicking on Utilities/DCL Command Window in *FileView*. Enter command name, options and filename as described in [].

### 2.1.3  Starting from *FileView* menu bar

If the installation of *DVIDECW* was done properly, *DVIDECW* can be started by choosing the Applications/TeX Preview option from the *FileView* menu bar. A dialog box will appear and ask for the filename to be processed, after clicking on the 'OK' button a second dialog box will appear and ask for processing options.

### 2.1.4  Starting by double-clicking within *FileView* window

If the installation of *DVIDECW* was done properly, *DVIDECW* can be started by double-clicking on any DVI-file (Filename has the extension `.DVI`). A dialog box will appear and ask for processing options.

### 2.1.5  Remarks

*DVIDECW* offers the same options as the Beebe *BBN Bitgraph*-driver. However, it ignores the -o option (order pages) and will only display the first page (Default: 1) given in the -o option . All other options conforms to the description of N.F.Beebe's driver family [].

*DVIDECW* initially operates with 69 dpi fonts which permit a full page preview in all formats. The option -m1 (as well as zooming from the menu bar) uses 83 dpi fonts which are quite readable and allow a full page preview in most cases (if offsets are disabled).

During page creation *DVIDECW* writes status reports to the *DECwindows* standard output window. These status reports (and the creation of a standard output window) can be suppressed by entering the quiet option (-q) in the processing options dialog box. This will switch to quiet mode which only writes error messages to the standard output window.

After invocation *DVIDECW* creates a window with a menu bar (for interactive commands) and two scrollbars. The window title bar contains information about the current page and resolution.

If the 'TeX Preview' is active (it has the *Input Focus*), some of the menu bar options can be operated with keyboard shortcuts which correspond to those defined by Nelson F. Beebe in []. To give the *Input Focus* to the 'TeX Preview' window, just click with the mouse somewhere within the window area. All shortcut key combinations are also displayed in the menu bar next to the option names.

## 2.2  *DVIDECW* menus

### 2.2.1  File-Menu

- About *DVIDECW*…     will display a dialog box which contains information about the program version and copyrights.

- Quit     closes all *DVIDECW* windows and terminates the application.

### 2.2.2  Edit-Menu

- Cut

- Copy     copies the window contents to the Clipboard [1]

- Paste

- Clear

- Select All

The Edit Menu is implemented according to the standards defined in [], but only the Copy option is currently supported.

### 2.2.3  Page-Menu

- Previous     switches to the previous page

[1] The Copy operation does not work in the current version of *DVIDECW*

- **Next**    switches to the next page

- **Goto…**    opens a dialog box, where a page number can be entered. After clicking on 'OK' or 'GO', the selected page will be displayed.

- **Zoom in**    magnifies the current page (by one $T_EX$ magstep)

- **Zoom out**    reduces the current page (by one $T_EX$ magstep)

- **Top of Page**    moves window contents to top of page

- **Bot of Page**    moves window contents to bottom of page

### 2.2.4 Move-Menu

- **Up**    moves window contents up

- **Down**    moves window contents down

- **Left**    moves window contents left

- **Right**    moves window contents right

### 2.2.5 Options-Menu

- **No offset/Use offset**    deactivates/activates any offset specified in the commandline

- **Fast move/Slow move**    switches between big/small move distances

- **Reset position**    resets window position

## 2.3 Dialog boxes

*DVIDECW* provides six dialog boxes:
- **AlertNYI**    pops up, if an unimplemented program operation was selected by the user

- **About*DVIDECW***    shows information about the *DVIDECW* program version and copyrights

- **LastpageInfo**    is displayed, if a page beyond the last page in the DVI file is selected

- **FirstpageInfo**    is displayed, if a page beyond the first page in the DVI file is selected

- **ZoomrangeInfo**    pops up, if the zoom range is exceeded

- **Gotopage_box**    provides the possibility to enter a page number, which is to be displayed next. This dialog box is of the '*modeless*' type and remains on the screen if

the 'Go' button is clicked. If the 'Cancel' or 'Ok' buttons are clicked, this dialog box will disappear. The 'Enter' key can be used instead of clicking the 'Ok' button.

# References

[] Knuth, Donald E. *The* $\mathrm{T_EX}$*book*, Addison-Wesley, Menlo Park (California) 1989

[] Beebe, Nelson H.F. *DVIxxx - Display* $\mathrm{T_EX}$ *DVI Files on Assorted Output Devices*, University of Utah, Salt Lake City (Utah)

[] Beebe, Nelson H.F. *A* $\mathrm{T_EX}$*DVI Driver Family*, University of Utah, Salt Lake City (Utah) 15.April 1987, Rev. 2.07

[] *Overview of VMS DECwindows*, Digital Equipment Corporation, Maynard (Massachusetts) 1988

[] *XUI Style Guide*, Digital Equipment Corporation, Maynard (Massachusetts) 1989

# A DCL-Command files

## A.1 DVIDECW.COM

Command file to compile/link *DVIDECW*

```
$ !------------------------------------------------------------
--------!
$ ! Filename: DVIDECW.COM
!
$ ! Function: Compiles and links the DVIDECW DEC-Windows
application   !
$ ! (c) 19-06-90 by Ch. Markus
!
$ !------------------------------------------------------------
--------!
$ !
$ !
$ if f$trnlnm("decw$include") .nes. "" then goto startupok
$ write sys$output "Invoke @DECW$STARTUP before using this
procedure"
$ !
$startupok:
$ !
$ ! Defines which have to be adapted to system installation
before
$ ! attempting to compile (will need modifications)
$ !
$ define/nolog dvi$decw $disk1:[1050101.includes] !modified .H
files
$ define/nolog dvi$beebe $disk2:[dvi-beebe.dvi]    !
standard .H files
$
!from BEEBE package
$ !
$ ! Defines which rely on system symbols set previously
(partly
$ ! defined in DECW$STARTUP)
$ !
```

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```
$ define/nolog c$include
dvi$decw,dvi$beebe,decw$include,sys$library

$ define/nolog vaxc$include c$include

$ define/nolog X11 decw$include

$ define/nolog sys sys$library

$ define/nolog uil$include decw$include

$ !

$ ! General checkup of old errors

$ !

$ on warning then goto error

$ !

$ !

$ ! Compile the 'C'-Source to 'OBJ'

$ !

$ if f$search("DVIDECW.C") .eqs. "" then goto compile_uil

$ !

$ vue$set_task_label "CC DVIDECW"

$ vue$popup_progress_box

$ cc /define=("OS_VAXVMS"=1) /define=("ANSI_LIBRARY"=1)
dvidecw

$ !

$ !

$compile_uil:

$ !

$ if f$search("DVIDECW.UIL") .eqs. "" then goto do_link

$ !

$ ! Compile the 'UIL'-Source to 'UID'

$ !

$ vue$set_task_label "UIL DVIDECW"

$ vue$popup_progress_box

$ uil dvidecw.uil

$ !

$do_link:

$ !

$ ! Link the DEC-Windows program

$ !

$ vue$set_task_label "LINK DVIDECW"
```

```
$ vue$popup_progress_box
$ !
$ link /exe=dvidecw.exe -
 sys$input:/options
 dvidecw.obj
 unixclib/lib
 sys$library:vaxcrtl/lib
 sys$share:decw$dwtlibshr/share
$ !
$ !
$ ! Change APPLY button to UPDATE button on FileView
$ !
$ vue$highlight_update
$end:
$ exit
$ !
$error:
$ vue$set_error_status
$ exit
```

## A.2  DVILINK.COM

Command file to link *DVIDECW*

```
$ !----------------------------------------------------------
--------!
$ ! Filename: DVILINK.COM
!
$ ! Function: Links the DVIDECW DEC-Windows application
(neccesary if !
$ !          DVIDECW will run under a VMS version  other
than 5.3)    !
$ ! Important:There will be a linker warning message for
multiply      !
$ !          defined Symbols QSORT and SYSTEM, this can be
ignored    !
$ ! (c) 21-03-90 by Ch. Markus
!
```

```
$ !------------------------------------------------------------
--------!
$ !
$ !
$ vue$set_task_label "LINK DVIDECW"
$ vue$popup_progress_box
$ !
$ link /exe=dvidecw.exe -
 sys$input:/options
 dvidecw.obj
 unixclib/lib
 sys$library:vaxcrtl/lib
 sys$share:decw$dwtlibshr/share
$ !
$ !
$ ! Change APPLY button to UPDATE button on FileView
$ !
$ vue$highlight_update
$ exit
```

## A.3  TEXVIEW.COM

Integration of *DVIDECW* in *FileView* menu bar

```
$ !------------------------------------------------------------
--------!
$ ! Filename: TEXVIEW.COM
!
$ ! Function: This is the interface between DECWindow FILEVIEW
and the!
$ !           DVIDECW Tex Preview driver which runs in the
DECWindows !
$ !           environment. Fileview selections are scanned
and passed !
$ !           in the command line.
!
$ ! (c) 19-06-90 by Christian MARKUS
!
```

```
$ !------------------------------------------------------------
--------!
$ !
$ ! These definitions supersede global definitions and have to
be
$ ! corrected in other environments
$ !
$ define/nolog TEX_FONTS $DISK0:[TEX29.DVI.CM.]      !path for
fonts
$ define/nolog TEX_INPUTS $disk1:[1050101.dvidecw] !path
for .UID file
$ dvidecw := $$disk1:[1050101.dvidecw]dvidecw      !path for
.EXE file
$ !
$ ! Check if files are selected in FileView
$ !
$ vue$get_selection_count
$ vue$read count
$ !
$ ! If files are selected then go on processing
$ !
$ if count .ne. 0 then goto get_file
$ !
$ ! Ask for filename
$ !
$ vue$inquire_symbol "VUE$TEXVIEW_DVI Filename:"
$ vue$read selection
$ !
$ ! Check for valid filename
$ !
$ if "''selection'".eqs. "" then goto end
$ goto do_dvi
$ !
$ ! Get Filename from FileView selection
$ !
$get_file:
$ vue$get_next_selection
$ vue$read selection
```

```
$ !
$ ! Start DVIDECW with filename argument
$ !
$do_dvi:
$ !
$ ! Extract the filename from selection
$ !
$ filename= "''f$parse(selection,,,"NAME")'"
$ !
$ ! Check if file exists
$ !
$ if f$search("''filename'"+".dvi") .eqs. "" then goto end
$ !
$ ! Ask for processing parameter
$ !
$ vue$inquire_symbol "VUE$TEXVIEW Parameter:"
$ vue$read parameter
$ !
$ ! Write info box
$ !
$ vue$set_task_label "DVIDECW ''filename'"
$ vue$popup_progress_box
$ !
$ dvidecw 'filename' 'parameter'
$ !
$end:
$ exit
```