XDVI/XDVIK

1 DESCRIPTION

Xdvi is a program for previewing dvi files, as produced e.g. by the tex(1) program, under the X window system.

Xdvi can show the file shrunken by various integer factors, and it has a "magnifying glass" for viewing parts of the page enlarged (see the section MAGNIFIER below). This version of xdvi is also referred to as xdvik since it uses the kpathsea library to locate and generate font files. In addition to that, it supports the following features:

- hyperlinks in DVI files (section HYPERLINKS),
- direct rendering of Postscript¡tm¿ Type1 fonts (section T1LIB),
- source specials in the DVI file (section SOURCE SPECIALS),
- string search in DVI files (section STRING SEARCH),
- saving or printing (parts of) the DVI file (sections PRINT DIALOG and SAVE DIALOG).

Before displaying a page of a DVI file, xdvi will check to see if the file has changed since the last time it was displayed. If this is the case, it will reload the file. This feature allows you to preview many versions of the same file while running xdvi only once. Since it cannot read partial DVI files, xdvik versions starting from 22.74.3 will cre- ate a temporary copy of the DVI file being viewed, to ensure that the file can be viewed without interruptions. (The -notempfile can be used to turn off this feature).

Xdvi can show PostScript¡tm¿ specials by any of three methods. It will try first to use Display PostScript¡tm¿, then NeWS, then it will try to use Ghostscript to render the images. All of these options depend on additional software to work properly; moreover, some of them may not be compiled into this copy of xdvi.

For performance reasons, xdvi does not render PostScript specials in the magnifying glass.

If no file name has been specified on the command line, xdvi will try to open the most recently opened file; if the file history (accessible via the File ¿ Open Recent menu) is empty, or if none of the files in the history are valid DVI files, it will pop up a file selector for choosing a file name. (In previous versions, which didn't have a file history, the file selector was always used; you can set the X resource noFileArgUseHistory to false to get back the old behaviour.)

2 KEYSTROKES

Xdvi recognizes the following keystrokes when typed in its window. Each may optionally be preceded by a (positive or negative) number, a 'prefix argument', whose interpretation will depend on the particular keystroke. This prefix argument can be discarded by pressing the "Es- cape" key. If present, the "Help", "Prior" and "Next" keys are synonyms for '?', 'b', and 'f' keys, respectively.

The key bindings listed here are those that xdvi assigns by default. The names appearing in brackets at the beginning of the descriptions are the names of the actions associated with the keys; these can be used to customize the key bindings, as explained in more detail in the section CUSTOMIZATION below. If only a lowercase binding is listed, both upper- and lowercase keys will work for that binding.

- **ESC key** [discard-number()] The escape key discards the numerical prefix for all actions (useful when you mistyped a number).
- **Delete key** [up-or-previous()] Moves down two-thirds of a window-full, or to the top of the previous page if already at the bottom of the page. With a float argument, moves down the corresponding frac- tion of a window-full. By default, the Space key is bound to the action unpause-or-next() which does a similar thing; see there. The 'keep' flag is ignored by these actions.
- **Space key** [unpause-or-next()] Moves down two-thirds of a window-full, or to the next page if already at the bottom of the page. When the option -pause special-string is used and the display is currenlty paused, this key will instead display the next portion of the page until the next special-string or the end of the page is encountered. See the description of the -pause option for details.
- **Ctrl-Home (Xaw), Ctrl-osfBeginLine (Motif)** [goto-page(1)] Moves to the first page of the document.
- **Ctrl-End (Xaw), Ctrl-osfEndLine (Motif)** [goto-page()] Moves to the last page of the document.
- **Home (Xaw), osfBeginLine (Motif)** [home-or-top()] Move to the "home" position of the page, or to the top of the page if the keep flag is set (in this case, the page doesn't scroll horizontally).
- **End (Xaw), osfEndLine (Motif)** [end-or-bottom()] Move to the "end" position of the page (the lower right-hand corner), or to the bottom of the page if the keep flag is set (in this case, the page doesn't scroll horizontally).
- **Down arrow** [down(0.015)] Scrolls page down.
- **Up arrow** [up(0.015)] Scrolls page up.

- **Right arrow** [right(0.015)] Scrolls page right.
- **Left arrow** [left(0.015)] Scrolls page left.
- **Alt-Ctrl-+** change-density(25) Increase the darkness of the fonts in the DVI window by adding to the gamma value (see also the 'S' keystroke).
- **Alt-Ctrl**– [change-density(-25)] Decrease the darkness of the fonts in the DVI window by subtracting from the gamma value (see also the 'S' keystroke).
- **Ctrl-+** [set-shrink-factor(+)] Increase the shrink factor (see also the 's' keystroke).
- **Ctrl**– [set-shrink-factor(-)] Decrease the shrink factor (see also the 's' keystroke).
- **Ctr-[** [pagehistory-delete-backward()] Delete the current item in the page history and move to the history item before the deleted one. With a prefix argument n, delete n previous history items. See PAGE HISTORY for details.
- **[** [pagehistory-back()] Move back in the page history (see PAGE HISTORY for details). With a prefix argument n, move back n his- tory items.
- **Ctr-]** [pagehistory-delete-forward()] Delete the current item in the page history and move to the history item after the deleted one. With a prefix argument n, delete n next history items. See PAGE HISTORY for details.
- **]** [pagehistory-forward()] Move forward in the page history (see PAGE HISTORY for details). With a prefix argument n, move for- ward n history items.
- $[home()] Move to the "home" position of the page. Thnormally the upper left-hand corner of the page, depending on the margins as described in the -margins option, above.$
- **?** [help()] Same as the h key (which
- **B** [htex-back()] This key jumps back to the previous hyperlin chor. See the section HYPERLINKS for more information on navi- gating the links.
- **b** [back-page()] Moves to the previous page (or back n p Synonyms are 'p' and Ctrl-h.
- **C** [set-color()] This key toggles the use of color specials key sequences '0C' and '1C' turn interpretation of color spe- cials off and on, respectively. See also the -nocolor option.
- **c** [center()] Moves the page so that the point currently b the mouse cursor is moved to the middle of the window, and warps the mouse cursor to the same place.

- **d** [down()] Moves page down two thirds of a window-full. float argument to "down", moves down the corresponding frac- tion of a window-full.

- **Ctrl-f** [find()] Pop up a window to search for a string in the DVI file. See the section STRING SEARCH, below, for more details.

- **f** [forward-page()] Moves to the next page (or to the nth nex if a number is given). Synonyms are 'n', Return, and Line Feed.

- **G** [set-greyscaling()] This key toggles the use of greyscale aliasing for displaying shrunken bitmaps. In addition, the key sequences '0G' and '1G' clear and set this flag, respectively. See also the -nogrey option.

  If given a numeric argument that is not 0 or 1, greyscale anti- aliasing is turned on, and the gamma resource is set to the val- ue divided by 100. E.g., '150G' turns on greyscale and sets gam- ma to 1.5.

- **Ctrl-g** [find-next()] Find the next match string in the DVI file; this can be used instead of pressing the 'Find' button in the search window.

- **g** [goto-page()] Moves to the page with the given number. page number is given, xdvi jumps to the last page. If the option/resource useTeXpages is active, the numbers corre- spond the the actual page numbers in the TeX file; otherwise, absolute page numbers (starting from 1) are used. In the latter case, the page numbers can be changed with the 'P' keystroke, below. Note that with the useTeXpages option it is possible that the same page number occurs multiple times; in such a case, xdvi will use the first page number that matches.

- **h** Pops up a help window with a short explanation of the mo portant key bindings and concepts.

- **k** [set-keep-flag()] Normally when xdvi switches pages, it mo the home position as well. The 'k' keystroke toggles a 'keep- position' flag which, when set, will keep the same position when moving between pages. Also '0k' and '1k' clear and set this flag, respectively. See also the -keep option.

- **Ctrl-l** [fullscreen(toggle)] Toggles fullscreen mode (see the descrip- tion of the -fullscreen option for more information on this). This is even more flaky than using the command-line option: There is no universal standard how a window could change its own geometry or window decorations at run-time, so this will not work with most window managers or desktops. Generally, it's bet- ter to use the window manager controls to change the size or decorations of the xdvi window.

- **l** [left()] Moves page left two thirds of a window

- **M** [set-margins()] Sets the margins so that the point current der the mouse cursor defines the upper left-hand corner of the text in the page. Note that the command does not move the im- age, but only determines the margins

for the page switching com- mands. For details on how the margins are used, see the -margins option.

- **m** [toggle-mark()] Toggles the mark for the current page i page list. When a page is marked, it is displayed with a small star '*' next to the page number. The marked pages can then be printed or saved to a file. A page or several pages can also be marked by clicking or dragging Mouse-2 in the page list.

- **Ctrl-n** [toggle-mark()forward-page()] Toggles the mark for the current page in the page list, and moves to the next page. This lets you quickly mark a series of subsequent pages.

- **n** [forward-page()] Moves to the next page (or to the nth nex if a number is given). Synonyms are 'f', Return, and Line Feed.

- **Ctrl-o** [select-dvi-file()] Read a new dvi file. A file-selection widget is popped up for you to choose the DVI file from. If a prefix argument n is given, the n th file from the file history is opened instead.

- **P** [declare-page-number()] "This is page number n." This used to make the 'g' keystroke refer to a different page number than the physical page. (If you want to use 'logical' or TeX page numbers instead of physical pages, consider using the op- tion -useTeXpages instead.) The argument n should be given as prefix to this key.

- **Ctrl-p** [print()] Opens a popup window for printing the DVI file, or parts of it. See the section PRINT DIALOG for an explanation of the options available, and the resources to customize the de- fault behaviour.

- **p** [back-page()] Moves to the previous page (or back n p Synonyms are 'b' and Ctrl-h.

- **q** [quit()] Quits the pr

- **Ctrl-**r [forward-page(0)] Redisplays the current page.

- **R** [reread-dvi-file()] Forces the dvi file to be reread. Thi lows you to preview many versions of the same file while running xdvi only once.

- **r** [right()] Moves page right two thirds of a window

- **Ctrl-s** [save()] Opens a popup window for saving the DVI file, or parts of it. See the section SAVE DIALOG below for more information on this.

- **S** [set-density()] Sets the density factor to be used when s ing bitmaps. This should be a number between 0 and 100; higher numbers produce lighter characters. If greyscaling mode is in effect, this changes the value of gamma instead. The new value of gamma is the given number divided by 100; negative values are allowed.

- **s** [set-shrink-factor()] Changes the shrink factor to the number. If no number is given, the smallest factor that makes the entire page fit in the window will be used. (Margins are ignored in this computation.)

- **T** [use-tex-pages()] Use logical TeX pages (the values o 0 register) instead of physical pages for the pagelist la- bels and when jumping to a page in a document via goto-page(). See also the -useTeXpages option.

- **t** [switch-magnifier-units()] Switches the units used for th nifier tick marks, and for reporting the distance between the mouse pointer and the ruler centre in ruler mode (see the sec- tion MODES). The default value is specified by the X resource tickUnits ('mm' by default). The units toggle through the fol- lowing values; except for 'px', they all correspond to TeX's units: mm (millimeters) pt (TeX points), in (inches), sp (scaled points, the unit used internally by TeX) bp (big points or 'Postscript points'), cc (cicero points), dd (didot points), pc (pica), and px (screen pixels).

- **Ctrl-u** [back-page()toggle-mark()] Moves to the previous page, and toggles the mark for that page. This is the dual action to Ctrl-n.

- **u** [up()] Moves page up two thirds of a window-full. With a argument to "up", moves up the corresponding fraction of a window-full.

- **Ctrl-v** [show-source-specials()] Show bounding boxes for every source special on the current page, and print the strings contained in these specials to stderr. With prefix 1, show every bounding box on the page. This is for debugging purposes mainly.

- **V** [set-gs-alpha()] This key toggles the anti-aliasi PostScript¡tm¿ specials when Ghostscript is used as renderer. In addition the key sequences '0V' and '1V' clear and set this flag, respectively. See also the -gsalpha option.

- **v** [set-ps()] This key toggles the rendering of PostScript¡tm cials between 3 states:

  - specials (like EPS graphics) are displayed;

  - specials are displayed along with their bounding box (if available);

  - only the bounding box is displayed.

  The states can also be selected directly by using '1v', '2v' and '0v' respectively. See also the -postscript option.

- **Ctrl-x** [source-what-special()] Display information about the source special next to the mouse cursor in the statusline. This is the same special that would be found by source-special() , but with- out invoking the editor. For debugging purposes.

- **x** [set-expert-mode()] Toggles expert mode, in which th tusline, the scrollbars, the menu buttons, the toolbar (Motif only) and the page list are not shown. Typing '1x' toggles the display of the statusline at the bottom of

the window. Typing '2x' toggles the scrollbars (if available). For Xaw, '3x' tog- gles the menu buttons and the page list, for Motif, it toggles the page list. In Motif, the additional bindings '4x' toggle the toolbar, and '5x' the menu bar. Without a prefix argument, all of the mentioned GUI elements are either switched on (if they had been invisible before) or off. Toggling the scrollbars may behave erratically with the Xaw widgets; e.g. the scrollbars may reappear after resizing the win- dow, and at certain window sizes one of the scrollbars may fail to disappear. See also the option -expertmode (the numbers above correspond to the bits in the argument to -expertmode).

3 MOUSE ACTIONS IN THE MAIN WINDOW

- **Mouse-1** [do-href()magnifier(*1)]
- **Mouse-2** [do-href-newwindow()magnifier(*2)] Usually, if a binding specifies more then one action, all actions are executed in a se- quence. The hyperlink bindings do-href() and do-href-newwindow() are special in that they are used as an alternative to other ac- tions that might follow them if the mouse is currently located on a hyperlink. In this case, none of the other actions will be executed. Otherwise, only the other actions are executed. The action do-href() jumps to the link target in the current xdvi window (eventually switching to another page), and do-href- newwindow() opens a new instance of xdvi for the link target. In both cases, the location of the target is indicated by a small arrow drawn in the same color as a visited link in the left corner of the window.
- **Mouse-3** [magnifier(*3)] The actions magnifier(n) will pop up a "magnifying glass" which shows the unshrunk image of the region around the mouse pointer. The magnifier disappears when the mouse button is released. Moving the mouse cursor while holding the button down will move the magnifier. In 'Ruler Mode', the first button moves or sets a ruler cross instead; see the section MODES, below, for details. Different mouse buttons produce different sized windows, as in- dicated by the the argument of the magnifier() action. Its argu- ment is either a string of the form widthxheight, as in the -mgsn command-line option, or one of the strings *1 through *5, referring to the value specified by the corresponding -mgsn option. Note that in order to assign magnifier actions to the but- tons 4 or 5, you need to use the resource wheelTranslations (more about this resource below), e.g.:

  xdvi.wheelTranslations: ¡Btn4Down¿: magnifier(*4) ¡Btn5Down¿:magnifier(*5)
- **Shift-Mouse-1** [drag(+)]
- **Shift-Mouse-2** [drag(—)]

- **Shift-Mouse-3** [drag(-)] Drags the page with the mouse. Shift-Mouse 1 allows dragging in all directions, Shift-Mouse 2 allows vertical dragging only, and Shift-Mouse 3 allows horizontal dragging only. To access these actions via customization, use the drag action. This action should have one parameter, the character "—", "-", or "+", indicating vertical dragging, horizontal drag- ging, or dragging in both directions.

- **Ctrl-Mouse-1** [source-special()] Holding down the Ctrl key and clicking mouse button 1 starts a "reverse search", opening the editor at the location in the TeX file corresponding to the pointer location in the DVI file. See the section on SOURCE SPECIALS, below, for more information on this.

UNBOUND ACTIONS The following actions are not bound to a key by default, but are avail- able for customization.

- **quit-confirm()** Pops up a confirmation window to quit xdvi. To bind it to the 'q' key instead of the default 'quit()' action, put the follow- ing into your /.Xdefaults file:

  xdvi.mainTranslations: override ¡Key¿q: quit-confirm()

- **down-or-next()** Similar to unpause-or-next(): Moves down two-thirds of a window- full, or to the next page if already at the bottom of the page.

- **shrink-to-dpi()** This action takes one (required) argument. It sets the shrink factor to an integer so as to approximate the use of fonts with the corresponding number of dots per inch. If xdvi is using fonts scaled for p dots per inch, and the argument to shrink-to- dpi is n, then the corresponding shrink factor is the ratio p/n, rounded to the nearest integer.

4 CUSTOMIZATION

Key and mouse button assignments can be changed by setting the main- Translations resource to a string of translations as defined in the documentation for the X toolkit. The actions should take the form of action names listed in the KEYSTROKES and MOUSE ACTIONS sections, see xdvi man for further information.

5 PAGE LIST

The scrollable page list on the right of the main window allows you to jump directly to a page in the DVI file.

- **Mouse-1** Jumps to the page the mouse is located on.

- **Mouse-2** [toggle-mark()] Toggle the mark of the current page. The marks are used by the 'Print' and 'Save to file' dialogs to select on- ly marked pages from the DVI file.

When the mouse pointer is inside the page list, the mouse wheel switch- es to the next or previous page.

6 SCROLLBARS

The scrollbars (if present) behave in the standard way: pushing Button 2 in a scrollbar moves the top or left edge of the scrollbar to that point and optionally drags it; pushing Button 1 moves the image up or right by an amount equal to the distance from the button press to the upper left-hand corner of the window; pushing Button 3 moves the image down or left by the same amount.

The scrollbars can be removed via the -expertmode flag/keystroke (which see).

Wheel mice are supported: motion of the wheel on such a mouse moves the image up or down by the number of pixels indicated by the -wheelu- nit option. To access this option via customization, use the wheel ac- tion. This action takes one parameter, giving the distance to scroll the image. If the parameter contains a decimal point, the distance is given in wheel units; otherwise, pixels.

7 MAGNIFIER

By default, the mouse buttons 1 to 5 will pop up a "magnifying glass" that shows an unshrunken image of the page (i.e. an image at the reso- lution determined by the option/X resource pixels or mfmode) at varying sizes. When the magnifier is moved, small ruler-like tick marks are displayed at the edges of the magnifier (unless the X resource de- layRulers is set to false, in which case the tick marks will always be displayed). The unit of the marks is determined by the X resource tickUnits (mm by default). This unit can be changed at runtime via the action switch-magnifier-units(), by default bound to the keystroke 't' (see the description of that key, and of switch-magnifier-units() for more details on the units available). The length of the tick marks can be changed via the X resource tick- Length (4 by default). A zero or negative value suppresses the tick marks.

8 PAGE HISTORY

Xdvi keeps a history of viewed pages, and you can move through the his- tory and delete items using the keys [(pagehistory-back()),] (page- history-forward()), Ctr-[(pagehistory-delete-backward()) and Ctr-] (pagehistory-delete-forward()).

When one of the history commands is used, the page history is displayed in the status line at the bottom of the window, with the current list item marked by square brackets '[', ']' and a left and right context of at most 10 items. File boundaries are marked by ''.

The size of the history can be customized with the X resource pageHistorySize (the default size is 1000 items). If the size is set to 0, the history commands are disabled.

9 HYPERLINKS

The actions do-href() and do-href-newwindow() (by default bound to Mouse-1 and Mouse-2 if the pointer is currently located on a hyperlink) can be used to open the link target in the same window (do-href()) or in a new window (do-href-newwindow()).

If the link target is not a file on the local disk, xdvi tries to launch a web browser (as specified by the -browser command line option, the BROWSER environment variable or the wwwBrowser X resource, in this order) to retrieve the document. See the description of the BROWSER en- vironment variable, below, for an example setting.

If the file is a local file, xdvi tries to determine if it is a DVI file. If it is, xdvi will try to display the file; otherwise it will try to determine the MIME type of the file, and from that an applica- tion suitable for opening the file. This is done by parsing the files specified by the environment variable EXTENSIONMAPS for a mapping of filename extensions to MIME types, and the files determined by the en- vironment variable MAILCAPS for a mapping of MIME types to application programs. See the descriptions of these variables in the section ENVI- RONMENT, below, for a more detailed description and the default values of these variables. If no suitable files are found, a set of built-in default MIME types and applications is used.

Xdvi currently uses no heuristics apart from the filename suffix to de- termine the mime type of a file. If a filename has no suffix, the value of the resource noMimeSuffix is used (by default application/x-un- known). If the suffix doesn't match any of the suffixes in mime.types, the value of the resource unknownMimeSuffix is used (by default appli- cation/x-unknown). If the mailcap entries do not list a viewer for a given mime type, xdvi will show a warning popup. If you want to avoid this warning, and for example want to always use the netscape browser for unknown MIME types, you could add the following line to your /.mailcap file:

application/xdvi-unknown; netscape -raise -remote 'openURL(

10 STRING SEARCH

The keystroke Ctrl-f or the menu entry File ¿ Find ... (or the 'Binoc- ulars' symbol in the toolbar, for Motif) opens a dialog window to search for a text string or a regular expression in the DVI file. The keystroke Ctrl-g jumps to the next match (like pressing the 'Find' but- ton in the search window).

By default, the matches are highlighted in inverted color. If the dis- play isn't running in TrueColor, or if the X resouce matchHighlightIn- verted is set

to false or the command-line option -nomatchinverted is used, xdvi will instead draw a rectangle in highlight color (see the -hl option) around the match.

If a match crosses a page boundary, only the part on the first page is highlighted. Xdvi will scan up to 2 adjacent pages to match strings crossing page boundaries; but note that header or footer lines, or in- tervening float pages will be treated as parts of the scanned text. Such text will usually cause multi-page matching to fail.

This emphasizes the fact that searching in the formatted text (the DVI output) works differently from searching in the source text: Searching in the DVI file makes it easier to skip formatting instructions, and makes it possible to search for e.g. hyphenation and equation numbers; but sometimes the formatting results can also get in the way, e.g. in the case of footnotes. In these cases it's better to search in the TeX source instead. The use of source specials will make switching between the xdvi display and the editor with the TeX source easier; see the section SOURCE SPECIALS below for more information on this.

The text extracted from the DVI file is in encoded in UTF-8 (you can view that text by saving the file in UTF-8 format via the File ¿ Save as ... menu item). If xdvi has been compiled with locale, nl_langin- fo() and iconv support, the search term is converted from the character set specified by the current locale into UTF-8. (See the output of lo- cale -a for a list of locale settings available on your system). If nl_langinfo() is not available, but iconv is, you can specify the input encoding for iconv via the X resource textEncoding (see the output of iconv -l for a list of valid encodings). If iconv support is not available, only the encodings ISO-8859-1 and UTF-8 are supported (these names are case-insensitive).

Ideographic characters from CJKV fonts are treated specially: All white space (spaces and newlines) before and after such characters is ignored in the search string and in the DVI file.

To match a newline character, use in the search string; to match the string , use
n.

If the checkbox Regular Expression is activated, the string is treated as a regular expression in extended POSIX syntax, with the following properties:

- a? matches a zero or one times.
- a* matches a zero or more times.
- a+ matches a one or more times. Note that * and + are greedy, i.e. they match the longest possible substring.
- The pattern . matches any character except for newline. To also match a newline, use '(.—)'.
- an matches a exactly n times.
- an,m matches a at least n and no more than m times.

- a—b matches a or b. Brackets can be used for grouping, e.g.: (a—b)—c.
- The string matched by the nth group can be referenced by , e.g. refers to the first match.
- The characters ^{a}nd match the beginning and the end of a line, respectively.

abc matches any of the letters a, b, c, and [a-z] matches all characters from a to z.

- Each item in a regular expression can also be one of the following POSIX character classes: [[:alnum:]] [[:alpha:]] [[:blank:]] [[:cntrl:]] [[:digit:]] [[:graph:]] [[:lower:]] [[:print:]] [[:space:]] [[:upper:]]

  These can be negated by inserting a $^{s}ymbolafterthefirstbrack - et$: [$^{[}$: $alpha$:]]

For more details on POSIX regular expressions, see e.g. the IEEE Std 1003.1 standard definition available online from:

http://www.opengroup.org/onlinepubs/007904975/basedefs/xbd$_{c}hap09.html$

- As a non-standard extension, the following Perl-like abbreviations can be used instead of the POSIX classes:

  Symbol Meaning POSIX Class

  an alphanumeric character [[:alnum:]] a non-alphanumeric character [$^{[}$: $alnum$:]]ạ$digitcharacter$[[: $digit$:]]$anon-digitcharacter$[$^{[}$: $digit$:]]$awhitespacecharacter$[[: $space$:]]§$anon - whitespacecharacter$[$^{[}$: $space$:]]

- The following characters are special symbols; they need to be es- caped with in order to match them literally: ( ) [ ] . * ? +
- Matches of length zero are silently skipped.

  The dialog also provides checkboxes to:

- search backwards;
- match in a case-sensitive manner (the default is to ignore case, i.e. a search string Test will match both the strings test and TEST in the DVI file);
- ignore line breaks and hyphens: This removes all hyphens at the ends of lines and the following newline characters, and replaces all remaining newline characters by white spaces. So hyphenated words will appear as one word to the search, and a search for two words with a space in between will also match the words if they are separated by a linebreak. Note that the hyphen removal may cause unwanted side effects for compound words containing hyphens that are wrapped after the hy- phen, and that replacing the newlines affects the interpretation of regular expressions as follows: The . pattern will also match new- lines, and ^{a}nd won't match begin and end of lines any more. (Since currently there is no option for turning off the greediness of * and +, turing on this option will usually result in matches that are longer than desired.)

  The current checkbox settings are saved in the /.xdvirc file.

11 PRINT DIALOG

The print dialog window allows you to print all pages, marked pages (click or drag Mouse-2 in the page list to mark them), or a range of pages. Note that the page numbers always refer to physical pages, so if you're using the option 'use TeX pages', you may want to disable it to make it easier to determine the correct page numbers (or avoid this problem altogether by marking the pages to be printed).

The value of the Printer text filed is passed to dvips via the -o! mechanism, as a single argument after the '!'. Any arguments listed in the Dvips options field are segmeted at whitespaces and passed as sepa- rate arguments to dvips. If you e.g. want to print the file 2-up, you should enter the following string into the Printer field:

psnup -2 -q — lpr -Plp

There are several resources for customizing the behaviour and the de- fault entries of the print dialog:

itemize

dvipsPrinterString

dvipsOptionsString These can be used to provide default entries for the Printer and the Dvips options text fields, respectively. If no paper size is specified in the DVI file (via e.g. [dvips]geometry

this is the preferred method), the input field is initialized with the current value of the command line option/X resource pa- per. E.g., the option -paper a4r is translated into the dvips options -t a4 -t landscape. Note that no check is performed whether dvips actually understands these options (it will ignore them if it can't); currently not all options used by xdvi are also covered by dvips.

d

dvipsFailHangTime These specify the time (in milliseconds) that the printing progress window will stay open after the dvips process has ter- minated. The value of dvipsHangTime is used if the process ter- minates successfully; dvips-FailHangTime is used if it terminates with an error. The default values are 1.5 and 5 seconds, respec- tively. If both values are negative, the window will stay open until it is closed by the user.

12 SAVE DIALOG

This dialog allows you to save all or selected/marked pages in the cur- rent DVI file. You can save in one of the following formats:

- Postscript (uses dvips to convert the DVI file to a Postscript file, just like when printing to a Postscript file).
- PDF (first uses dvips to convert the DVI file to a Postscript file, then uses ps2pdf to convert the Postscript file to PDF).

- Plain text in ISO-8859-1 or UTF-8 encoding (the latter will pre- serve more of the special LaTeX characters e.g. from mathematical mode). If a character cannot be displayed in the selected charset, it is replaced by ‘ followed by the hexadecimal character code. If a character is not recognized at all, it is replaced by ‘?’. If you think that xdvi should recognize a character but doesn’t, please send a feature request to the address given in AUTHORS be- low. Likewise, if you observe spurious spaces or unwanted line- breaks in the output, please report this as a bug.

The programs for Postscript and PDF conversion can be customized via the command line options or X resources -dvipspath/.dvipsPath and -ps2pdfpath/.ps2pdfPath, respectively; see the explanation of these op- tions above for more details.

13 MODES

The keystroke Ctrl-m [switch-mode()] switches between three different bindings for Mouse-1, which can also be activated via the Modes menu (in Motif, this is a submenu of the Options menu called Mouse Mode). The default mode at startup can be customized via the X resource mouse- Mode or the command-line option -mousemode. The default startup mode is Magnifier Mode.

Note: The modes are implemented by changing the magnifier() action. Switching the mode will not work if Mouse-1 has been customized to an ac- tion sequence that does not contain the magnifier() action.

Magnifier Mode In this mode, the mouse buttons 1 to 5 pop up a “magnifying glass” that shows an unshrunken image of the page (i.e. an im- age at the resolution determined by the option/X resource pixels or mfmode) at varying sizes. When the magnifier is moved, small ruler-like tick marks are displayed at the edges of the magnifi- er (unless the X resource delayRulers is set to false, in which case the tick marks are always displayed). The unit of the marks is determined by the X resource tickUnits (mm by default). This unit can be changed at runtime via the action switch-magni- fier-units(), by default bound to the keystroke ‘t’ (see the de- scription of that key, and of switch-magnifier-units() for more details on the units available). The length of the tick marks can be changed via the X resource tickLength (4 by default). A zero or negative value suppresses the tick marks.

Text Selection Mode This mode allows you to select a rectangular region of text in the DVI file by holding down Mouse-1 and moving the mouse. The text is put into the X primary selection so that it can be past- ed into other X applications with Mouse-2 as usual. If xdvi has been compiled with locale, nl_langinfo() and iconv support, the selected text is converted into the character set of the current locale (see the output of locale -a for a list of locale settings available on your system). If nl_langinfo() is not available, but iconv is, you can specify the input encoding for iconv via the X resource textEncoding (see the output of iconv -l for a list of valid encodings). If iconv support is not available, only the encodings ISO-8859-1 and UTF-8 are supported (these names

are case-insensitive). Note that UTF-8 is the only encoding that can render all charac- ters (e.g. mathematical symbols) of a DVI file. If ISO-8859-1 is active, characters that cannot be displayed are replaced by ‘ ́followed by the hexadecimal character code. For other encod- ings, such characters may trigger iconv error messages. If a character is not recognized at all, it is replaced by ‘?’. To extract larger portions of text, you can alternatively save selected pages or the entire file in text format via the File ¿ Save as ... menu.

Ruler Mode This mode provides a simple way of measuring distances on the page. When this mode is activated, the mouse cursor changes into a thin cross, and a larger, cross-shaped ruler is drawn in the highlight color at the mouse location. The ruler doesn't have units attached to it; instead, the current distance between the ruler and the mouse cursor is continously printed to the sta- tusline. When activating Ruler Mode, the ruler is at first attached to the mouse and can be moved around. It can then be positioned at a fixed place by clicking Mouse-1. After that, the mouse cursor can be moved to measure the horizontal (dx), vertical (dy) and direct (shortest) (dr) distance between the ruler center point and the mouse. Clicking Mouse-1 again will move the ruler to the current mouse position, and holding down Mouse-1 will drag the ruler around. In Ruler Mode, the following special keybindings extend or re- place the default bindings:

o [ruler-snap-origin()] Snap the ruler back to the origin coordinate (0,0).

t [overrides switch-magnifier-units()] Toggle between vari- ous ruler units, which can be specified by the X resource tickUnits (‘mm’ by default).

P [overrides declare-page-number()] Print the distances shown in the sta- tusline to standard output.