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Red Hat Enterprise Linux Release 9.2 Manual Pages on 'brltty.1' command

$ man brltty.1

BRLTTY(1) BRLTTY User's Manual BRLTTY(1)

NAME

brltty - refreshable braille display driver for Linux/Unix

SYNOPSIS

brltty [option ...]

DESCRIPTION

brltty is a background process (daemon) which provides access to the console screen (when in text mode) for a blind person using a refresh? able braille display. It drives the braille display, and provides com? plete screen review functionality. Some speech capability has also been incorporated.

OPTIONS

Options can be passed to brltty in a number of ways. From most to least influential, these are:

1. Command Line Options
2. Boot Parameters
3. Environment Variables (if the -E (--environment-variables) option is in effect)
4. The Configuration File
5. Built-in Defaults

Command Line Options

The options are processed sequentially from left to right. If an op? tion is specified more than once, or in case of a conflict, the right?

most specification takes precedence.

The following options are supported:

-a table (--attributes-table=)

The path to the attributes table. Relative paths are anchored at /etc/brltty/Attributes. The .atb extension is optional. The built-in default is left_right.atb.

-b driver,...|auto (--braille-driver=)

The driver for the braille display (see Driver Specification). The built-in default is auto.

-c table (--contraction-table=)

The path to the contraction table. Relative paths are anchored at /etc/brltty/Contraction. The .ctb extension is optional.

-d device,... (--braille-device=)

The device to which the braille display is connected. The built-in default is usb:,bluetooth:.

The general form of a braille device specification is quali? fier:data. For backward compatibility with earlier releases, if the qualifier is omitted then serial: is assumed. The following device types are supported:

Bluetooth

For a bluetooth device, specify bluetooth:address. The address must be six two-digit hexadecimal numbers sepa? rated by colons, e.g. 01:23:45:67:89:AB.

Serial For a serial device, specify serial:device. The serial: qualifier is optional (for backward compatibility). If a relative path is given then it's anchored at /dev/ (the usual location where devices are defined on a Unix-like system). The following device specifications all refer to the primary serial device on Linux: serial:ttyS0, se? rial:/dev/ttyS0, ttyS0, /dev/ttyS0.

USB For a USB device, specify usb:. brltty will search for the first USB device which matches the braille display driver being used. If this is inadequate, e.g. if you

have more than one USB braille display which requires the same driver, then you can refine the device specification by appending the serial number of the display to it, e.g. usb:12345. N.B.: The "identification by serial number" feature doesn't work for some models because some manu? facturers either don't set the USB serial number descrip? tor at all or do set it but not to a unique value.

A comma-delimited list of braille devices may be specified. If this is done then autodetection is performed on each listed de? vice in sequence. This feature is particularly useful if you have a braille display with more than one interface, e.g. both a serial and a USB port.

-e (--standard-error)

Write logs to standard error rather than to the system log (use? ful for debugging).

-f file (--configuration-file=)

The path to the configuration file. Relative paths are anchored at the current working directory. The built-in default is /etc/brltty.conf.

-h (--help)

Print a command line usage summary (commonly used options only), and then exit.

-i name (--speech-input=)

The file system object (FIFO, named pipe, named socket, etc) which gives other applications access to brltty's speech driver for text-to-speech conversion. It's created at start-up and re? moved at termination. Relative paths are anchored at the cur? rent working directory. The built-in default is that the file system object is not created.

-k table (--keyboard-table=)

The path to the keyboard table. Relative paths are anchored at /etc/brltty/Keyboard. The .ktb extension is optional.

-l level (--log-level=)

The minimum severity level for messages written to the log. Any of the following numbers, or any abbreviation of their corresponding names, may be specified:

0 emergency

1 alert

2 critical

3 error

4 warning

5 notice

6 information

7 debug

The built-in default is notice.

-m device (--midi-device=)

The device to use for the Musical Instrument Digital Interface. For ALSA it's client:port, where each may be either a number or a case-sensitive substring of its name. For other interfaces it's the full path to an appropriate system device. The built-in default is:

Linux/ALSA the first available MIDI output port

Linux/OSS /dev/sequencer

-n (--no-daemon)

Remain in the foreground (useful for debugging).

-o name=value,... (--override-preference=)

Override a preference setting. For the location of the preferences file, see the -F (--preferences-file) option.

-p device (--pcm-device=)

The device to use for digital audio. For ALSA it's name[:argument,...]. For other interfaces it's the full path to an appropriate system device. The built-in default is:

FreeBSD /dev/dsp

Linux/ALSA hw:0,0

Linux/OSS /dev/dsp

NetBSD /dev/audio

OpenBSD /dev/audio

Qnx the preferred PCM output device

Solaris /dev/audio

-q (--quiet)

Suppress the start-up messages. This is done by reducing the default log level (see the -l (--log-level=) option) to warning (information if either -v (--verify) or -V (--version) is also specified).

-r (--release-device)

Release the device to which the braille display is connected when the current screen or window can't be read.

-s driver,...|auto (--speech-driver=)

The driver for the speech synthesizer (see Driver Specifica? tion). The built-in default is auto.

-t table (--text-table=)

The path to the text table. Relative paths are anchored at /etc/brltty/Text. The .ttb extension is optional. The built-in default is en-nabcc.ttb (the North American Braille Computer Code).

-v (--verify)

Print the start-up messages and then exit. This always includes the versions of brltty itself, the server side of its applica? tion programming interface, and each of the selected braille and speech drivers. If the -q (--quiet) option isn't also specified then it also includes the values of the options after all sources have been considered. If more than one braille driver and/or more than one braille device has been specified then braille display autodetection is performed. If more than one speech driver has been specified then speech synthesizer autode? tection is performed.

-x driver (--screen-driver=)

The screen driver. The built-in default is operating system ap? propriate.

-A name=value,... (--api-parameters=)

Parameters for the application programming interface. If the same parameter is specified more than once then the rightmost specification is used. Parameter names may be abbreviated.

-B [driver:]name=value,... (--braille-parameters=)

Parameters for the braille display driver. If the same parame? ter is specified more than once then the rightmost specification is used. Parameter names may be abbreviated. If a parameter assignment is qualified with a driver identification code then it's only processed if that braille display driver is being used.

-D directory (--drivers-directory=)

The path to the directory which contains the dynamically load? able driver objects. The built-in default is /usr/lib64/brltty.

-E (--environment-variables)

Recognize environment variables.

-F file (--preferences-file=)

The path to the preferences file. Relative paths are anchored at /var/lib/brltty. The built-in default is brltty.prefs.

-H (--full-help)

Print a command line usage summary (all options), and then exit.

-I (--install-service)

(Windows only) Install brltty as the BrlAPI service so that it will be automatically started when the system is booted, and so that applications can know that a BrlAPI server is running.

-K arg (--keyboard-properties=)

Properties of the keyboard.

-L file (--log-file=)

The file to which log messages are written. Relative paths are anchored at the current working directory. The default is to send log messages to the system log.

-M csecs (--message-delay=)

The message hold time in hundredths of a second. The built-in

default is 400 (4 seconds).

-N (--no-api)

Don't start the application programming interface.

-P file (--pid-file=)

The full path to the process identifier file. If this option is supplied, brltty writes its process identifier (pid) into the specified file at start-up. The file is removed when brltty terminates.

-R (--remove-service)

(Windows only) Remove the BrlAPI service so that brltty will not be automatically started when the system is booted, and so that applications can know that no BrlAPI server is running.

-S [driver:]name=value,... (--speech-parameters=)

Parameters for the speech synthesizer driver. If the same pa? rameter is specified more than once then the rightmost specifi? cation is used. Parameter names may be abbreviated. If a pa? rameter assignment is qualified with a driver identification code then it's only processed if that speech synthesizer driver is being used.

-T directory (--tables-directory=)

The path to the directory which contains the text, attributes, contraction, keyboard, and input tables. The built-in default is /etc/brltty.

-U directory (--updatable-directory=)

The path to a directory which contains files that can be up? dated. The built-in default is /var/lib/brltty.

-V (--version)

Print the versions of brltty itself, the server side of its ap? plication programming interface, and those drivers which were configured in at build-time, and then exit. If the -q (--quiet) option isn't also specified then also print copyright informa? tion.

-W directory (--writable-directory=)

The path to a directory which can be written to. The built-in default is /run/brltty.

-X name=value,... (--screen-parameters=)

Parameters for the screen driver. If the same parameter is specified more than once then the rightmost specification is used. Parameter names may be abbreviated.

-Y text (--start-message=)

The text to be shown when the braille driver starts and to be spoken when the speech driver starts. The built-in default is BRLTTY 6.3.

-Z text (--stop-message=)

The text to be shown when the braille driver stops. The built-in default is BRLTTY stopped.

Environment Variables

The following environment variables are recognized if the -E (--envi? ronment-variables) option is specified:

BRLTTY_API_PARAMETERS=name=value,...

Parameters for the application programming interface. See the -A (--api-parameters=) option for details.

BRLTTY_ATTRIBUTES_TABLE=table

The attributes table. See the -a (--attributes-table=) option for details.

BRLTTY_BRAILLE_DEVICE=device,...

The device to which the braille display is connected. See the -d (--braille-device=) option for details.

BRLTTY_BRAILLE_DRIVER=driver,...|auto

The driver for the braille display. See the -b (--braille-driver=) option for details.

BRLTTY_BRAILLE_PARAMETERS=[driver:]name=value,...

Parameters for the braille display driver. See the -B (--braille-parameters=) option for details.

BRLTTY_CONFIGURATION_FILE=file

The configuration file. See the -f (--configuration-file=) op?

tion for details.

BRLTTY_CONTRACTION_TABLE=table

The contraction table. See the -c (--contraction-table=) option for details.

BRLTTY_MIDI_DEVICE=device

The device to use for the Musical Instrument Digital Interface. See the -m (--midi-device=) option for details.

BRLTTY_PCM_DEVICE=device

The device to use for digital audio. See the -p (--pcm-device=) option for details.

BRLTTY_PREFERENCES_FILE=file

The preferences file. See the -F (--preferences-file=) option for details.

BRLTTY_RELEASE_DEVICE=on|off

Release the device to which the braille display is connected when the current screen or window can't be read. See the -r (--release-device) option for details.

BRLTTY_SCREEN_DRIVER=driver

The screen driver. See the -x (--screen-driver=) option for de? tails.

BRLTTY_SCREEN_PARAMETERS=name=value,...

Parameters for the screen driver. See the -X (--screen-parame? ters=) option for details.

BRLTTY_SPEECH_DRIVER=driver,...|auto

The driver for the speech synthesizer. See the -s (--speech-driver=) option for details.

BRLTTY_SPEECH_INPUT=name

The file system object which gives other applications access to brltty's speech driver for text-to-speech conversion. See the -i (--speech-input=) option for details.

BRLTTY_SPEECH_PARAMETERS=[driver:]name=value,...

Parameters for the speech synthesizer driver. See the -S (--speech-parameters=) option for details.

BRLTTY_TEXT_TABLE=table

The text table. See the -t (--text-table=) option for details.

The Configuration File

Blank lines are ignored. If the character # occurs on any line then all characters from it to the end of that line are treated as a com? ment.

The following configuration directives are supported:

api-parameters name=value,...

Parameters for the application programming interface. See the -A (--api-parameters=) option for details.

attributes-table table

The attributes table. See the -a (--attributes-table=) option for details.

braille-device device,...

The device to which the braille display is connected. See the -d (--braille-device=) option for details.

braille-driver driver,...|auto

The driver for the braille display. See the -b (--braille-driver=) option for details.

braille-parameters [driver:]name=value,...

Parameters for the braille display driver. See the -B (--braille-parameters=) option for details.

contraction-table table

The contraction table. See the -c (--contraction-table=) option for details.

midi-device device

The device to use for the Musical Instrument Digital Interface. See the -m (--midi-device=) option for details.

pcm-device device

The device to use for digital audio. See the -p (--pcm-device=) option for details.

preferences-file file

The preferences file. See the -F (--preferences-file=) option

for details.

release-device on|off

Release the device to which the braille display is connected when the current screen or window can't be read. See the -r (--release-device) option for details.

screen-driver driver

The screen driver. See the -x (--screen-driver=) option for de? tails.

screen-parameters name=value,...

Parameters for the screen driver. See the -X (--screen-parame? ters=) option for details.

speech-driver driver,...|auto

The driver for the speech synthesizer. See the -s (--speech-driver=) option for details.

speech-input 0me

The file system object which gives other applications access to brltty's speech driver for text-to-speech conversion. See the -i (--speech-input=) option for details.

speech-parameters [driver:]name=value,...

Parameters for the speech synthesizer driver. See the -S (--speech-parameters=) option for details.

text-table table

The text table. See the -t (--text-table=) option for details.

Driver Specification

A braille display or speech synthesizer driver must be specified via its identification code:

al Alva

an Android

at Albatross

ba BrlAPI

bc BrailComm

bd Braudi

bg B2G

bl BrailleLite

bm Baum

bn BrailleNote

cb CombiBraille

ce Cebra

cn Canute

ec EcoBraille

en eSpeak-NG

es eSpeak

eu EuroBraille

fa FrankAudiodata

fl FestivalLite

fs FreedomScientific

fv Festival

gs GenericSay

hd Hedo

hm HIMS

ht HandyTech

hw HumanWare

ir Iris

ic Inceptor

lb Libbraille

lt LogText

mb MultiBraille

md MDV

mm BrailleMemo

mn MiniBraille

mp Mikropuhe

mt Metec

no no driver

np NinePoint

pg Pegasus

pm Papenmeier

sd SpeechDispatcher

sk Seika

sw Swift

th Theta

tn TechniBraille Systems Inc.

ts Telesensory Systems Inc.

tt TTY

vd VideoBraille

vo Voyager, Part232 (serial adapter), BraillePen/EasyLink

vr Virtual

vs VisioBraille

vv ViaVoice

xs ExternalSpeech

xw XWindow

A comma-delimited list of drivers may be specified. If this is done then autodetection is performed using each listed driver in sequence. You may need to experiment in order to determine the most reliable order since some drivers autodetect better than others.

If the single word auto is specified then autodetection is per? formed using only those drivers which are known to be reliable for this purpose.

SEE ALSO

For full documentation, see brltty's on-line manual at [http://brltty.app/documentation.html].