

rxvt - unicode

rxvt-unicode (<http://software.schmorp.de/pkg/rxvt-unicode.html>) is a customizable terminal emulator forked from [rxvt](#). Features of rxvt-unicode include international language support through [Unicode](#), transparency, the ability to display multiple font types and support for [Perl](#) extensions.

Related articles

[rxvt-unicode/Tips and tricks](#)

Contents

[Installation](#)

[Configuration](#)

[Xresources](#)

[Scrollback position](#)

[Scrollback buffer in secondary screen](#)

[Font declaration methods](#)

[Font spacing](#)

[Colors](#)

[Printing](#)

[Reload the configuration](#)

[Cut and paste](#)

[Perl extensions](#)

[Clickable URLs](#)

[Yankable URLs \(no mouse\)](#)

[Simple tabs](#)

[Fullscreen](#)

[Changing font size on the fly](#)

[Confirm paste](#)

[Disabling Perl extensions](#)

[Troubleshooting](#)

[Transparency not working after upgrade to v9.09](#)

[Remote hosts](#)

[Using rxvt-unicode as gmrn terminal](#)

[My numerical keypad acts weird and generates differing output? \(e.g. in vim\)](#)

[Key combinations do not work](#)

[Slow performance when drawing glyphs](#)

[Very long lines cause slowdown](#)

[See also](#)

1 Installation

Install the [rxvt-unicode](https://archlinux.org/packages/?name=rxvt-unicode) (<https://archlinux.org/packages/?name=rxvt-unicode>) package, or [rxvt-unicode-truecolor](https://aur.archlinux.org/packages/rxvt-unicode-truecolor/) (<https://aur.archlinux.org/packages/rxvt-unicode-truecolor/>)^{AUR} for 24-bit true color support.

2 Configuration

See [urxvt\(1\)](https://man.archlinux.org/man/urxvt.1) (<https://man.archlinux.org/man/urxvt.1>) and [urxvt\(7\)](https://man.archlinux.org/man/urxvt.7) (<https://man.archlinux.org/man/urxvt.7>) for available settings and values.

2.1 Xresources

Rxvt-unicode is controlled by command-line arguments or [Xresources](#). Command-line arguments override, and take precedence over resource settings, see the [X resources](#) article for details.

`urxvt - -help` prints all available `rxvt` resources to standard error. The man page has full explanations of each resource.

2.2 Scrollback position

By default, when shell output appears the scrollback view will automatically jump to the bottom of the buffer to display new output. If in cases where you want to see previous output (e.g., compiler messages), set the following options in `~/.Xresources`:

```
! do not scroll with output
URxvt*scrollTtyOutput: false

! scroll in relation to buffer (with mouse scroll or Shift+Page Up)
URxvt*scrollWithBuffer: true

! scroll back to the bottom on keypress
URxvt*scrollTtyKeypress: true
```

2.3 Scrollback buffer in secondary screen

When you scroll a pager in a *secondary screen* (e.g. `less` without the `-X` option), it may be a good idea to disable the scrollback buffer to be able to scroll in the pager *itself*, instead of the terminal's buffer: this is default and unchangeable behaviour in konsole and vte-based terminals.

In `urxvt`, to disable the scrollback buffer for the *secondary screen*:

```
URxvt.secondaryScreen: 1
URxvt.secondaryScroll: 0
```

The above configuration works as expected except when scrolling with a mouse wheel. When you scroll a pager in the *secondary screen* with the mouse wheel - and there has been something in the scrollbar buffer, instead of the pager itself - the scrollbar buffer will be scrolled by the mouse wheel. To solve this issue, it is necessary to introduce a new option into rxvt-unicode [\[1\] \(https://bbs.archlinux.org/viewtopic.php?id=132150\)](https://bbs.archlinux.org/viewtopic.php?id=132150). A patched rxvt-unicode is available in AUR as [rxvt-unicode-better-wheel-scrolling \(https://aur.archlinux.org/packages/rxvt-unicode-better-wheel-scrolling/\)](https://aur.archlinux.org/packages/rxvt-unicode-better-wheel-scrolling/)^{AUR}. After installing it, add the following to the configuration file:

```
URxvt.secondaryWheel: 1
```

Note: Avoid using this option with the [urxvt-vtwheel \(https://aur.archlinux.org/packages/urxvt-vtwheel/\)](https://aur.archlinux.org/packages/urxvt-vtwheel/)^{AUR} perl extension, as it will conflict.

2.4 Font declaration methods

```
URxvt.font: 9x15
```

is the same as:

```
URxvt.font: -misc-fixed-medium-r-normal--15-140-75-75-c-90-iso8859-1
```

And, for the same font in bold:

```
URxvt.font: 9x15bold
```

is the same as:

```
URxvt.font: -misc-fixed-bold-r-normal--15-140-75-75-c-90-iso8859-1
```

The complete list of short names for X core fonts can be found in `/usr/share/fonts/misc/fonts.alias` (there are also some `fonts.alias` files in some of the other subdirectories of `/usr/share/fonts/`, but as they are packaged separately from the actual fonts, they may list fonts you do not actually have installed). It is worth noting that these short aliases select for ISO-8859-1 versions of the fonts rather than ISO-10646-1 (Unicode) versions, and 75 DPI rather than 100 DPI versions, so you are probably better off avoiding them and choosing fonts by their full long names instead.

Note: The above paragraph is only for bitmap fonts. Other fonts can be used through Xft using the following format:

```
URxvt.font: xft:monaco:size=10
```

Or

```
URxvt.font: xft:monaco:bold:size=10
```

Note: If there is a hyphen (-) in an Xft font name, it must be escaped with backslash (\) twice. It is different from the usage of `urxvt -fn` option and the result that *fc-list* returns, where backslash present only once.

A nice method for testing out fonts in a live terminal before committing to the configuration is by printing escape codes in the terminal, for example:

```
$ printf '\e]710;%s\007' "xft:Terminus:pixelsize=12"
```

2.5 Font spacing

By default the distance between characters can feel too wide. The spacing can be reduced by one pixel as such:

```
~/.Xresources
-----
URxvt.letterSpace: -1
```

There is some debate [\[2\]](http://lists.schmorp.de/pipermail/rxvt-unicode/2007q4/000511.html) (<http://lists.schmorp.de/pipermail/rxvt-unicode/2007q4/000511.html>) [\[3\]](http://lists.schmorp.de/pipermail/rxvt-unicode/2007q4/000512.html) (<http://lists.schmorp.de/pipermail/rxvt-unicode/2007q4/000512.html>) over how *urxvt* calculates character widths. [rxvt-unicode-patched](https://aur.archlinux.org/packages/rxvt-unicode-patched/) (<https://aur.archlinux.org/packages/rxvt-unicode-patched/>)^{AUR} changes this calculation, usually resulting in tighter character spacing.

2.6 Colors

By default, rxvt-unicode is compiled with color support. In addition to the default foreground and background colors, rxvt can display up to 256 colors (plus high-intensity bold/blinking/underlined and any mix of these).

It is also possible to specify the color values of foreground, background, cursorColor, cursorColor2, colorBD, colorUL as a number 0-15, as a convenient shorthand to reference the color name of color0-color15. See [#Xresources](#) for details.

Note: By default *urxvt* uses the same colors as [Xterm](#), except one. Add `URxvt.color12: rgb:5c/5c/ff` to Xresources to change this.

2.7 Printing

By default, rxvt-unicode will print out a screen dump, via *lpr*, when `PrintScreen` is pressed. Using `Ctrl+PrintScreen` or `Shift-PrintScreen` will include the terminal's scroll back in the printout as well. This behavior can be changed, or disabled entirely, based on personal preference and need.

```
~/.Xresources
-----
! Disable printing the terminal contents when pressing PrintScreen.
URxvt.print-pipe: "cat > /dev/null"
```

2.8 Reload the configuration

After changing the configuration use `xrdb ~/.Xresources` to reload the config. The new configuration is applied for all new terminals.

3 Cut and paste

Rxvt-unicode uses cut buffers which are loaded into the current PRIMARY selection by default. See [Selecting and pasting text \(http://pod.tst.eu/http://cvs.schmorp.de/rxvt-unicode/doc/rxvt.1.pod#THE_SELECTION_SELECTION_AND_PASTING_\)](http://pod.tst.eu/http://cvs.schmorp.de/rxvt-unicode/doc/rxvt.1.pod#THE_SELECTION_SELECTION_AND_PASTING_) for details.

It is possible to access the CLIPBOARD selection with the bindings ALT-CTRL-C and ALT-CTRL-V for copy and paste respectively.

Note: Selected text is automatically copied to PRIMARY selection. The selection-to-clipboard [perl extension](https://archlinux.org/packages/?name=rxvt-unicode), available since [rxvt-unicode \(https://archlinux.org/packages/?name=rxvt-unicode\)](https://archlinux.org/packages/?name=rxvt-unicode) 9.20, copies to CLIPBOARD selection as well.

If you wish to copy into PRIMARY selection and also ensure that your CLIPBOARD selection is updated with the same contents, you may add the following:

```
URxvt.perl-ext-common: ...,selection-to-clipboard,...
```

and

```
URxvt.clipboard.autocopy: true
URxvt.keysym.M-c: perl:clipboard:copy
URxvt.keysym.M-v: perl:clipboard:paste
```

See also [Clipboard#Managers](#).

4 Perl extensions

We can enable URxvt perl extensions by including the following line:

```
URxvt.perl-ext-common: extension_name_1,extension_name_2,...
```

Please take note that there **should not** be any spacing between extension names.

4.1 Clickable URLs

You can make URLs in the terminal clickable using the matcher extension. For example, to open links in the default web browser with the left mouse button, add the following to `.Xresources`:

```
URxvt.perl-ext-common: default,matcher
URxvt.url-launcher: /usr/bin/xdg-open
URxvt.matcher.button: 1
```

Since rxvt-unicode 9.14, it is also possible to use `matcher` to open and list recent (currently limited to 10) URLs via keyboard:

```
URxvt.keysym.C-Delete: perl:matcher:last
URxvt.keysym.M-Delete: perl:matcher:list
```

Matching links can be colored with a chosen foreground or background [color](#), for example blue:

```
URxvt.matcher.rend.0: Uline Bold fg5
```

Alternatively, use `colorUL` for a `#RRGGBB` color. This will however color all underlined text, instead of only link matches:

```
URxvt.colorUL: #4682B4
```

4.2 Yankable URLs (no mouse)

In addition, you can select and open URLs in your web browser without using the mouse. Install the [urxvt-perls](https://archlinux.org/packages/?name=urxvt-perls) (<https://archlinux.org/packages/?name=urxvt-perls>) package and adjust your `.Xresources` as necessary. An example is shown below:

```
URxvt.perl-ext: default,url-select
URxvt.keysym.M-u: perl:url-select:select_next
URxvt.url-select.launcher: /usr/bin/xdg-open
URxvt.url-select.underline: true
```

Note: This extension replaces the Clickable URLs extension mentioned above, so `matcher` can be removed from the `URxvt.perl-ext` list.

Key commands:

Key	Description
Alt+u	Enter selection mode. The last URL on your screen will be selected. You can repeat Alt+u to select the next upward URL.
k	Select next upward URL
j	Select next downward URL
Return	Open selected URL in browser and quit selection mode
o	Open selected URL in browser without quitting selection mode
y	Copy (yank) selected URL and quit selection mode
Esc	Cancel URL selection mode

4.3 Simple tabs

To add tabs to urxvt, add the following to your `~/.Xresources` :

```
URxvt.perl-ext-common: ...,tabbed,...
```

To control tabs use:

Key	Description
Shift+Down	New tab
Shift+Left	Go to left tab
Shift+Right	Go to right tab
Ctrl+Left	Move tab to the left
Ctrl+Right	Move tab to the right
Ctrl+d	Close tab

You can change the colors of tabs with the following:

```
URxvt.tabbed.tabbar-fg: 2
URxvt.tabbed.tabbar-bg: 0
URxvt.tabbed.tab-fg: 3
URxvt.tabbed.tab-bg: 0
```

If you need to rename the tab, you would probably want to install [urxvt-tabbedex](https://aur.archlinux.org/packages/urxvt-tabbedex/) (<https://aur.archlinux.org/packages/urxvt-tabbedex/>)^{AUR} instead.

4.4 Fullscreen

You can install the [AUR](#) package [urxvt-fullscreen](https://aur.archlinux.org/package/s/urxvt-fullscreen/) (<https://aur.archlinux.org/package/s/urxvt-fullscreen/>)^{AUR}, and then set a key binding to put urxvt fullscreen.

```
~/.Xresources
```

```
...
URxvt.perl-ext-common: ...,fullscreen,...
URxvt.keysym.F11: perl:fullscreen:switch
...
```

4.5 Changing font size on the fly

Install [urxvt-resize-font-git](https://aur.archlinux.org/packages/urxvt-resize-font-git/) (<https://aur.archlinux.org/packages/urxvt-resize-font-git/>)^{AUR} from the [AUR](#), add it to your Perl extensions within `~/.Xresources`

```
URxvt.perl-ext-common: ...,resize-font,...
```

The default keybindings are

- `Ctrl++` (or `Ctrl+Shift+=`) to increase size
- `Ctrl+-` to decrease size
- `Ctrl+=` to reset size
- `Ctrl+?` to see current size

You can also change key bindings, for example like this:

```
URxvt.keysym.C-Down:  resize-font:smaller
URxvt.keysym.C-Up:    resize-font:bigger
```

For the `Ctrl+Shift` bindings to work, a default binding needs to be disabled (see discussion [here \(https://wilmergaa.st/blog/archives/36-rxvt-unicode-and-ISO-14755-mode.html\)](https://wilmergaa.st/blog/archives/36-rxvt-unicode-and-ISO-14755-mode.html)):

```
URxvt.iso14755: false
URxvt.iso14755_52: false
```

4.6 Confirm paste

The `confirm-paste` extension is enabled by default and it displays a confirmation dialog when a paste containing control characters is detected.

It can be disabled in the following way:

```
URxvt.perl-ext-common:-confirm-paste
```

4.7 Disabling Perl extensions

If you do not use the Perl extension features, you can improve the security and speed by disabling Perl extensions completely.

```
URxvt.perl-ext:
URxvt.perl-ext-common:
```

To selectively disable an extension, you need to prepend a hyphen before the extension name. For example:

```
URxvt.perl-ext-common:-extension
```

Note: If you use multiple Perl extension features, you can list them in succession, comma-separated:
`URxvt.perl-ext-common:default,matcher,tabbed`

5 Troubleshooting

5.1 Transparency not working after upgrade to v9.09

The rxvt-unicode developers removed compatibility code for a lot of non standard wallpaper setters with this update. Using a non compatible wallpaper setter will break transparency support. Recommended wallpaper setters:

- [feh](#)
- hsetroot
- esetroot

To make true transparency work, make sure to comment URxvt.tintColor and URxvt.inheritPixmap.

5.2 Remote hosts

If you are logging into a remote host, you may encounter problems when running text-mode programs under rxvt-unicode. This can be fixed by installing [rxvt-unicode-terminfo \(https://archlinux.org/packages/?name=rxvt-unicode-terminfo\)](https://archlinux.org/packages/?name=rxvt-unicode-terminfo) on the remote host or by copying `/usr/share/terminfo/r/rxvt-unicode` from your local machine to your host at `~/.terminfo/r/rxvt-unicode`; same for rxvt-unicode-256color.

Some remote systems do not change title automatically unless you specify TERM=xterm. To fix the issue add this line to `.bashrc` on the remote machine:

```
PROMPT_COMMAND='echo -ne "\033]0;${USER}@${HOSTNAME}:${PWD}\007"'
```

Another fix you can try is to put following in your `.Xresources`:

```
URxvt*termName: rxvt
```

This is useful when connecting into remote hosts without admin privileges to install terminfo definition for rxvt-unicode.

5.3 Using rxvt-unicode as gmrn terminal

Unlike some other terminals, urxvt expects the arguments to `-e` to be given separately, rather than grouped together with quotes. This causes trouble with gmrn, which assumes the opposite behavior. This can be worked around by putting an "eval" in front of gmrn's "Terminal" variable in `.gmrnrc`:

```
Terminal = eval urxvt
TermExec = ${Terminal} -e
```

(gmrn uses `/bin/sh` to execute commands, so the "eval" is understood here.) The "eval" has the side-effect of "breaking up" the argument to `-e` in the same way that `$@` does in [Bash](#), making the command intelligible to urxvt.

5.4 My numerical keypad acts weird and generates differing output? (e.g. in vim)

Some Debian GNU/Linux users seem to have this problem, although no specific details were reported so far. It is possible that this is caused by the wrong TERM setting, although the details of whether and how this can happen are unknown, as TERM=rxvt should offer a compatible keymap.

However, using the *xmodmap* program ([xorg-xmodmap \(https://archlinux.org/packages/?name=xorg-xmodmap\)](https://archlinux.org/packages/?name=xorg-xmodmap)), you can re-map your number pad keys back.

1. Check the keycode that your numerical keypad (numpad) generates using `xev` program.
 - Start the `xev` program
 - Press your number pad keys and look for `... keycode xxx ...` in `xev`'s output. For example, numpad 1 in some keyboards is also "End" key, that have a '**keycode 87**'.
2. Create or modify your *xmodmap* file, usually `~/.Xmodmap`, with the content representing your keycode.

Example of *xmodmap* file with number pad keycode:

```
keycode 63 = KP_Multiply
keycode 79 = Home KP_7
keycode 80 = Up KP_8
keycode 81 = Prior KP_9
keycode 82 = KP_Subtract
keycode 83 = Left KP_4
keycode 84 = KP_5
keycode 85 = Right KP_6
keycode 86 = KP_Add
keycode 87 = End KP_1
keycode 88 = Down KP_2
keycode 89 = Next KP_3
keycode 90 = Insert KP_0
keycode 91 = Delete KP_Decimal
keycode 112 = Prior
keycode 117 = Next
```

3. Load your *xmodmap* file at X session start-up.

For example, in `~/.xinitrc` file add:

```
...
xmodmap ~/.Xmodmap
...
```

5.5 Key combinations do not work

See [Get Alt key to work in terminal \(https://vim.wikia.com/wiki/Get_Alt_key_to_work_in_terminal?useskin=monobook\)](https://vim.wikia.com/wiki/Get_Alt_key_to_work_in_terminal?useskin=monobook).

5.6 Slow performance when drawing glyphs

Some programs like alsamixer and xprop do not perform well with some graphics drivers and in consequence redraw very slowly. The option "skipBuiltinGlyphs" for `~/.Xresources` or the command line option `-sbg` may fix this. One possible solution is to add the following to `~/.Xresources`:

```
URxvt*skipBuiltinGlyphs:      true
```

5.7 Very long lines cause slowdown

The `matcher` plugin may be the culprit here. It must match a regex against a line every time the line updates, and if you have a large `saveLines` value this can exacerbate the problem by allowing a very large maximum line length.

There are some simple workarounds:

- Reduce `saveLines`
- Disable the `matcher` plugin

If neither of those are palatable options, you can compromise by disabling URL matching past a certain cutoff point:

1. Copy `/usr/lib/urxvt/perl/matcher` to `~/.urxvt/ext/` (creating the directory if necessary)
2. Edit `~/.urxvt/ext/matcher`, and find the `my ($self, $row) = @_;` line in the `on_line_update` sub. It should be line 270.
3. After that line, insert the line `return () if $row < -100;`. This disables URL matching on any line that starts more than 100 rows behind the top of the terminal.

6 See also

- [rxvt-unicode \(http://software.schmorp.de/pkg/rxvt-unicode.html\)](http://software.schmorp.de/pkg/rxvt-unicode.html) - Official site
- [Source Code \(http://cvs.schmorp.de/rxvt-unicode/\)](http://cvs.schmorp.de/rxvt-unicode/) - Browseable CVS
- [rxvt-unicode FAQ \(http://pod.tst.eu/http://cvs.schmorp.de/rxvt-unicode/doc/rxvt.7.pod\)](http://pod.tst.eu/http://cvs.schmorp.de/rxvt-unicode/doc/rxvt.7.pod) - Official FAQ
- [rxvt-unicode Reference \(http://pod.tst.eu/http://cvs.schmorp.de/rxvt-unicode/doc/rxvt.1.pod\)](http://pod.tst.eu/http://cvs.schmorp.de/rxvt-unicode/doc/rxvt.1.pod) - Official manual page
- [urxvtperl \(http://pod.tst.eu/http://cvs.schmorp.de/rxvt-unicode/src/urxvt.pm\)](http://pod.tst.eu/http://cvs.schmorp.de/rxvt-unicode/src/urxvt.pm) - Official Perl extension reference

Retrieved from "<https://wiki.archlinux.org/index.php?title=Rxvt-unicode&oldid=752200>"

This page was last edited on 11 October 2022, at 14:44.

Content is available under [GNU Free Documentation License 1.3 or later](#) unless otherwise noted.

- [Privacy policy](#)
- [About ArchWiki](#)
- [Disclaimers](#)