Package ‘prompt’
March 12, 2021

Title  Dynamic ‘R’ Prompt
Version  1.0.1
Author  Gábor Csárdi
Maintainer  Gábor Csárdi <csardi.gabor@gmail.com>
Description  Set the ‘R’ prompt dynamically, from a function. The package contains some examples to include various useful dynamic information in the prompt: the status of the last command (success or failure); the amount of memory allocated by the current ‘R’ process; the name of the R package(s) loaded by ‘pkgload’ and/or ‘devtools’; various ‘git’ information: the name of the active branch, whether it is dirty, if it needs pushes pulls. You can also create your own prompt if you don’t like the predefined examples.
License  MIT + file LICENSE
URL  https://github.com/gaborcsardi/prompt
BugReports  https://github.com/gaborcsardi/prompt/issues
Imports  cli
Suggests  callr, gert, mockery, pkgload, ps (>= 1.6.0), R6, rstudioapi, testthat, withr
Encoding  UTF-8
LazyData  true
RoxygenNote  7.1.1.9000
Config/testthat/edition  3
NeedsCompilation  no
Repository  CRAN
Date/Publication  2021-03-12 17:30:02 UTC

R topics documented:

new_prompt_powerline .......................................................... 2
prompt ................................................................. 3
new_prompt_powerline

Description

This is a Powerline-like prompt

It is inspired by the https://github.com/powerline/powerline project. This prompt uses some Unicode glyphs that work best with the fonts specifically modified for Powerline: https://github.com/powerline/fonts

It also works best on consoles that support ANSI colors.

Usage

new_prompt_powerline(
    parts = list("status", "memory", "loadavg", "path", "devtools", "git"),
    colors = powerline_colors(parts)
)

Arguments

parts List of strings and functions. Strings are for the built-in powerline pieces, functions are arbitrary functions with four parameters: expr, value, ok and visible, and they should return a character string. The builtin pieces are:

• status: Status of last command, a red or green box.
• memory: Memory usage of the R process.
• loadavg: The load average of the system, see ps::ps_loadavg().
• path: Current working directory.
• devtools: Package(s) loaded by pkgload::load_all() or the same function of devtools.
• git: git status, see prompt_git().

colors Colors of the parts. Builtin parts have default colors, but you can change them.

Value

make_prompt_powerline() returns a function that you can use with set_prompt().

See Also

Other example prompts: prompt_devtools(), prompt_fancy(), prompt_git(), prompt_mem(), prompt_runtime(), prompt_status()
prompt

Dynamic R Prompt

Description
Set the R prompt dynamically, from a function.

prompt_devtools

Example prompt that shows the package being developed with devtools

Description
If git is installed and the current directory is part of a git tree, then also shows all information from prompt_git.

Usage
prompt_devtools(...)
devtools_packages()

Arguments
... Ignored.

Value
prompt_devtools() returns the prompt string.
devtools_packages() returns the packages loaded by devtools/pkgload.

See Also
Other example prompts: new_prompt_powerline(), prompt_fancy(), prompt_git(), prompt_mem(), prompt_runtime(), prompt_status()
prompt_fancy

A fancy prompt, showing probably too much information

Description

It also uses color, on terminals that support it. It shows:

- Status of last command.
- Memory usage of the R process.
- Load average of the machine.
- Package being developed using devtools, if any.
- Git branch and state of the working tree if within a git tree.

Usage

prompt_fancy(expr, value, ok, visible)

Arguments

expr Evaluated expression.
value Its value.
ok Whether the evaluation succeeded.
visible Whether the result is visible.

Value

prompt_fancy() returns the prompt string.

See Also

Other example prompts: new_prompt_powerline(), prompt_devtools(), prompt_git(), prompt_mem(), prompt_runtime(), prompt_status()

prompt_git

An example 'git' prompt

Description

An example 'git' prompt
Usage

`prompt_git(...)`

`is_git_dir()`

`git_branch()`

`git_arrows()`

`git_remote_status()`

`git_dirty()`

Arguments

... Unused.

Details

`prompt_git()` is a prompt with information about the git repository in the current working directory. It shows the current branch, whether there are commits to push or pull to the default remote, and whether the working directory is dirty.

`is_git_dir()` checks whether the working directory is in a git tree. If git is not installed, then it always returns `FALSE`.

`git_branch()` returns the name of the current branch.

`git_arrows()` checks the status of the local tree compared to the configured remote.

`git_remote_status()` checks the status of the local tree, compared to a configured remote.

`git_dirty()` checks if the local tree has uncommitted changes. If there are, it returns "*". Note that it also returns "*" on a git error, so you might want to use `is_git_dir()` as well.

Value

`prompt_git()` returns the prompt as a string.

`is_git_dir()` returns a logical scalar.

`git_branch()` returns a string. If the repository has no commits, then it returns "main". Note that if git is not available, or fails for any reason, it will also return "main", so you might want to call `is_git_dir()` as well.

`git_arrows()` returns a string that has a down arrow if the remote has extra commits, and a down arrow if the local tree has extra commits compared to the remote. Or both arrows for diverged branches. If it is not the empty string then it adds a leading space character.

`git_remote_status()` returns a numeric vector of length two. The first number is the number of extra commits in the local tree. The second number is the number of extra commits in the remote. If there is no remote, or git errors, it returns a vector of two NAs.

`git_dirty()` returns a character string, "*" or "".
prompt_mem

Description
Example prompt that shows the current memory usage of the R process

Usage
prompt_mem(...)

memory_usage()

Arguments
... Ignored.

Details
prompt_mem() is a simple example prompt that shows the physical memory allocated by the current process.
memory_usage() is a utility function that shows memory information about the current R process and the system. You can use it to create a custom prompt.

Value
prompt_mem() returns the formatted prompt in a string.
memory_usage() returns a list with entries:

- bytes: the number of bytes of memory the current process uses. This is the 'Resident Set Size', see ps::ps_memory_info().
- formatted: string that formats bytes nicely, with the appropriate unit.
- total: Total physical memory. See ps::ps_system_memory().
- avail: the memory that can be given instantly to processes without the system going into swap. See ps::ps_system_memory().
- percent: Percentage of memory that is taken. See ps::ps_system_memory().

See Also
Other example prompts: new_prompt_powerline(), prompt_devtools(), prompt_fancy(), prompt_mem(), prompt_runtime(), prompt_status()
**prompt_runtime**

**Examples**

```r
cat(prompt_mem())

memory_usage()
```

---

**prompt_runtime**  
A prompt that shows the CPU time used by the last top level expression

**Description**

A prompt that shows the CPU time used by the last top level expression

**Usage**

```r
prompt_runtime(...)```

**Arguments**

...  
Arguments, ignored.

**Value**

The prompt.

**See Also**

Other example prompts: `new_prompt_powerline()`, `prompt_devtools()`, `prompt_fancy()`, `prompt_git()`, `prompt_mem()`

---

**prompt_status**  
A prompt that shows the status (OK or error) of the last expression

**Description**

A prompt that shows the status (OK or error) of the last expression

**Usage**

```r
prompt_status(expr, value, ok, visible)```
Arguments

<table>
<thead>
<tr>
<th>Argument</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>expr</td>
<td>Evaluated expression.</td>
</tr>
<tr>
<td>value</td>
<td>Its value.</td>
</tr>
<tr>
<td>ok</td>
<td>Whether the evaluation succeeded.</td>
</tr>
<tr>
<td>visible</td>
<td>Whether the result is visible.</td>
</tr>
</tbody>
</table>

Value

prompt_status() returns the prompt string.

See Also

Other example prompts: new_prompt_powerline(), prompt_devtools(), prompt_fancy(), prompt_git(), prompt_mem(), prompt_runtime()

Description

Set and control the prompt

Usage

set_prompt(value)
suspend()
restore()
toggle()

Arguments

<table>
<thead>
<tr>
<th>Argument</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>value</td>
<td>A character string for a static prompt, or a function that is called after the evaluation every expression typed at the R prompt. The function should always return a character scalar.</td>
</tr>
</tbody>
</table>

Details

Function update_prompt() is used to replace the default R prompt with a custom prompt. A custom prompt can be disabled with suspend() and then re-enable with restore(). Function toggle() toggles between the two.

Value

No return value, called for side effects.
Index

* example prompts
  new_prompt_powerline, 2
  prompt_devtools, 3
  prompt_fancy, 4
  prompt_git, 4
  prompt_mem, 6
  prompt_runtime, 7
  prompt_status, 7

devtools_packages (prompt_devtools), 3

git_arrows (prompt_git), 4
git_branch (prompt_git), 4
git_dirty (prompt_git), 4
git_remote_status (prompt_git), 4

is_git_dir (prompt_git), 4

memory_usage (prompt_mem), 6

new_prompt_powerline, 2, 3, 4, 6–8

pkgload::load_all(). 2
prompt, 3
prompt_devtools, 2, 3, 4, 6–8
prompt_fancy, 2, 3, 4, 6–8
prompt_git, 2–4, 4, 6–8
prompt_git(), 2
prompt_mem, 2–4, 6, 6, 7, 8
prompt_runtime, 2–4, 6, 7, 8
prompt_status, 2–4, 6, 7, 7

ps::ps_loadavg(). 2
ps::ps_memory_info(). 6
ps::ps_system_memory(). 6

restore (set_prompt), 8

set_prompt, 8
set_prompt(). 2
suspend (set_prompt), 8

toggle (set_prompt), 8