Grc

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The Python tool grc is very useful for finding problems in log files or other output. `grc` stands for Generic Colouriser and is a Linux command line utility that enhances the output of other commands by adding colour to make it more readable and visually appealing. It is particularly useful for visually distinguishing between different types of information in long or complex output. This short tutorial will guide you through the process of installing and using grc.

1 Debian Versions

- The Debian 9.13 Stretch version is `1.9-1`
- The Debian 10 Buster version is `1.11.3-1`
- The Debian 11 Bullseye version is `1.11.3-1.1`
- It is developed on github under the GPLv2.

2 Installation

```
aptitude install grc
```

3 Basic Usage

3.1 Method 1: Directly with `grc`

The simplest:

```
grc COMMAND
grc netstat
grc ping hostname
grc tail /var/log/syslog
grc ps aux
```

Simple:

```
grc tail -f /var/log/apache2/error.log
```

Advanced:

Without grc:

```
tail -f myfile.log | perl -pe 's/SEVERE/\e[1;31m$&\e[0m/g'
```

And with grc for the first time:

```
mkdir ~/.grc
echo "regexp=SERVERE" > ~/.grc/myfile
echo "color=red" >>  ~/.grc/myfile
grc -c myfile tail -f myfile.log
```

And with grc for the second time and all times:

```
grc -c myfile tail -f myfile.log
```

- See the `README.markdown` document on github for more information.
- For other uses of coloring log files, see Tail and Multitail.

3.2 Method 2: Using aliases

To save time, you can create aliases for your most frequently used commands. Add the following lines to your ~/.bashrc or ~/.zshrc file:

```
alias ping='grc ping'
alias traceroute='grc traceroute'
alias gcc='grc gcc'
alias make='grc make'
```

After adding these aliases, restart your terminal or run source ~/.bashrc or source ~/.zshrc. Now, when you type ping, it will automatically use grc for coloring.

4 Custom Configuration

`grc` comes with predefined color schemes for some common commands. However, you can create your own custom color schemes by editing the configuration files.

4.1 Step 1: Create a custom conf file

Create a new file with the `.conf` extension (for example) in `~/.grc/`, in general:

```
mkdir -p ~/.grc
touch ~/.grc/my_command.conf
```

As an example we create the script `hello-world.sh` with the content:

```
#!/bin/bash
echo "Hello world!"
```

```
mkdir -p ~/.grc
touch ~/.grc/hello-world.conf
```

4.2 Step 2: Define your custom color scheme

Edit the `~/.grc/my_command.conf` file and define the color scheme using the following format

```
regexp=<regular_expression>
colour=<color>
```

In our example, to color the command `hello-world.sh`, create `~/.grc/hello-world.conf` as done above and add:

```
regexp=^(Hello)
colour=green
-
regexp=(world)
colour=red
```

This configuration could already be used like so:

```
grc -c 'hello-world.conf' ./hello-world.sh
```

To make it easier to use, an additional step is required.

4.3 Step 3: Add the custom conf file to grc configuration

Important: if you do not have a `~/.grc/grc.conf`, create one by copying `/etc/grc.conf` to `~/.grc/grc.conf`. Since `grc` uses only one configuration file, creating a new `~/.grc/grc.conf` will no longer colorize tools configured in `/etc/grc.conf`.

In general, add 3 lines for each program you colorize to `~/.grc/grc.conf`:

```
# COMMAND
REGEX_THAT_DETECTS_THE_COMMAND
GRCAT_CONFIGURATION_FILE_INSIDE_$HOME/.grc/
```

For our example, edit the `~/.grc/grc.conf` file and add at the end: a comment, a regex to detect `hello-world.sh` and the name of your configuration file inside `~/.grc/`.

```
# hello-world.sh
(^|[/\w\.]+/|./)hello-world.sh\s*
hello-world.conf
```

The format of `/etc/grc.conf` or `~/.grc/grc.conf`: each entry consists of 2 lines, between entries there can be any number of empty lines or lines starting with “#” (comments).

The first line is the regular expression, the second line is the name of the configuration file in the format of `grcat`.

Now, you can use `grc` with your custom color scheme.

```
grc ./hellow-world.sh
```

To further automate, you would define an alias.

```
alias hello-world.sh='grc PATH_TO/hello-world.sh'
```

This would permanently colorize `hello_world.sh`.

5 Links

- grc
- github

6 History

Version	Date	Notes
0.1.3	2023-05-12	Fix Heading
0.1.2	2023-04-14	Improve writing, add examples and steps
0.1.1	2022-05-27	Update for Debian 11 Bullseye, 9.13 Stretch, change shell to bash, +History, Link to tail, +commands
0.1.0	2020-12-17	Initial release

7 Disclaimer of Warranty

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