

Coloured Terminal Listings in remark

Challenge

How do we capture ANSI coloured console output and display it in remark?

```
josh@brick ~ $ ls -l --color
total 20363
drwxrwxr-x+ 96 root admin    3264 Feb 14 13:05 Applications
drwxrwxr-x  18 root admin     612 Aug 14 2011 Developer
drwxrwxr-t+ 63 root admin   2142 Apr 28 2012 Library
drwxr-xr-x   2 root wheel     68 Jul 10 2009 Network
drwxr-xr-x   4 root wheel    136 Jul 30 2011 System
drwxr-xr-x   6 root admin    204 Jun 27 2012 Users
drwxrwxrwt+  3 root admin    102 Feb 14 18:12 Volumes
drwxr-xr-x  39 root wheel   1326 Oct 23 19:41 bin
drwxrwxr-t   2 root admin     68 Jul 10 2009 cores
dr-xr-xr-x   3 root wheel   4350 Jan 18 20:54 dev
lrwxr-xr-x   1 root wheel     11 Sep 24 2009 etc -> private/etc
dr-xr-xr-x   2 root wheel     1 Jan 18 20:55 home
-rw-r--r--   1 root wheel 20828964 Jun  8 2011 mach_kernel
dr-xr-xr-x   2 root wheel     1 Jan 18 20:55 net
drwxr-xr-x   4 root wheel    136 Jan 10 22:26 opt
drwxr-xr-x   6 root wheel    204 Sep 24 2009 private
drwxr-xr-x  70 root wheel   2380 Oct 23 19:41 sbin
lrwxr-xr-x   1 root wheel     11 Sep 24 2009 tmp -> private/tmp
drwxr-xr-x  15 root wheel    510 Apr 28 2012 usr
lrwxr-xr-x   1 root wheel     11 Sep 24 2009 var -> private/var
```

Solution

Use the `aha` Ansi HTML Adaptor to capture output and paste the result as code to be interpreted by the `highlight.js` engine used in remark.

The Code

The results produced by `aha` are translated via the `highlight.js` engine (using the [language definition](#)) and a small jQuery script to substitute the embedded style elements after the page has rendered.

To achieve this, add the following to the end of the remark presentation:

```
...
<script src="https://gnab.github.io/remark/downloads/remark-latest.min.js"></script>
<script src="https://code.jquery.com/jquery-2.2.4.min.js"></script>
<script type="text/javascript">
  var hljs = remark.highlighter.engine;
</script>
<script src="terminal.language.js" type="text/javascript"></script>
<script type="text/javascript">
  var slideshow = remark.create({
    highlightStyle: 'monokai'
  });
  // extract the embedded styling from ansi spans
  $('code.terminal span.hljs-ansi').replaceWith(function(i, x) {
    return x.replace(/&lt;(\/?(\w+).*)&gt;/g, '<$1>');
  });
</script>
...
```

The terminal language definition assumes a prompt of the form:

```
user@host /path/x $
```

If you would like a different prompt style, get your regex on and alter it in the [language definition](#).

Worked Example to Capture Coloured Command Output (e.g. `git`)

1. Build and install [aha](#):

```
josh@brick ~/repos $ git clone https://github.com/theZiz/aha; cd aha
josh@brick ~/repos/aha $ make && cp aha /usr/local/bin
```

2. Capture output with `aha` (for dark background highlight.js styles such as `solarized_dark`, use `aha -b`):

```
josh@brick ~/repos/aha $ git log -2 --color | aha -b -n | pbcopy
```

To capture directly to clipboard, use:

- `pbcopy` for OS X
- `xsel --clipboard` for Linux
- `getclip` for Cygwin

Paste into remark document with the [header code](#) (see [source](#) for more details):

```
```terminal
josh@brick ~/repos/aha $ git log -2
commit 36b0a3af174e204c8d0a7a993ad467cd7be39bca
Author: Ziz <zizsdl@googlemail.com>
Date: Fri Aug 3 10:29:43 2012 +0200
```

```
 Small version changes, make clean, merging, etc.
```

```
...
```

```
```
```

Note: code must be in a [GFM](#) fenced block with "terminal" as the syntax-type as above.

The Result

Putting it all together, we have the desired result:

```
josh@brick ~/repos/aha $ git log -2
commit 36b0a3af174e204c8d0a7a993ad467cd7be39bca
Author: Ziz <zizsd1@googlemail.com>
Date:   Fri Aug 3 10:29:43 2012 +0200

    Small version changes, make clean, merging, etc.

commit 86abaa46c786c1e5dca33ad5907b8067d0e47a20
Merge: ed4f29b d0dc6c1
Author: Ziz <zizsd1@googlemail.com>
Date:   Fri Aug 3 10:28:59 2012 +0200

    Merge branch 'master' of github.com:theZiz/aha
```

Bold and Reverse

Bold and reverse work nicely, too (be careful of the background colour of your highlight.js theme):

```
josh@brick ~ $ zsh -c "print -P '%Bbold%Sreverse%b%s'"
boldreverse
```

The Colourful aha Help Message

The output of `aha -h` give a good example of the results of this method:

```
josh@brick ~/repos/aha $ aha -h
Ansi Html Adapter Version 0.4.6.1
aha takes SGR-colored Input and prints W3C conform HTML-Code
use: aha <options> [-f file]
    aha (--help|-h|-?)
aha reads the Input from a file or stdin and writes HTML-Code to stdout
options: --black,      -b: Black Background and White "standard color"
        --pink,      -p: Pink Background
        --iso X,     -i X: Uses ISO 8859-X instead of utf-8. X must be 1..16
        --title X,  -t X: Gives the html output the title "X" instead of "stdin"
                        or the filename
        --line-fix, -l: Uses a fix for inputs using control sequences to
                        change the cursor position like htop. It's a hot fix,
                        it may not work with any program like htop. Example:
                        echo q | htop | aha -l > htop.htm
        --word-wrap, -w: Wrap long lines in the html file. This works with
                        CSS3 supporting browsers as well as many older ones.
        --no-header, -n: Don't include header into generated HTML,
                        useful for inclusion in full HTML files.
Example: aha --help | aha --black > aha-help.htm
Writes this help text to the file aha-help.htm

Copleft Alexander Matthes aka Ziz 2012
zizsdl@googlemail.com
http://ziz.delphigl.com/tool_aha.php
This application is subject to the MPL or LGPL.
```