

# Ponysay

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A cowsay wrapper for ponies.  
Covers ponysay version 1.1.

by Mattias Andrée (maandree)

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This manual is for ponysay (version 1.1),

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# 1 Overview

`ponysay` displays an image of a My Little Pony pony saying some text provided by the user in a terminal. It is a wrapper for `cowsay`. If message is not provided, e.g. by piping, it accepts standard input. The pony saying the given message is printed on standard output.

`ponythink` is to `ponysay` as `cowthink` is to `cowsay`.

## 2 Invoking ponysay

The format for running the `ponysay` program is:

```
ponysay [option...] [message]
ponythink [option...] [message]
```

Running `ponysay` will print a speech balloon, `ponythink` will print a thought balloon. Otherwise `ponysay` and `ponythink` is the same thing.

`ponysay` supports the following options:

- '-h' Show summary of options.
- '-v' Show version of program.
- '-f PONY' Specify the pony that should printed, this can either be a file name or a pony name printed by `ponysay -l`. If it is a file name with a relative path and does not include a '/', it must begin with './', this is a `cowsay` issue. This option can be used multiple times to specify a set of ponies from which one will be selected randomly. If no pony is specified one will be selected randomly.
- '-q [PONY...]' This option requires the extension `ponyquotes4ponysay`. By using this option, a pony will be printed with quotes from her in My Litte Pony: Friendship is Magic. The pony will be selected randomly, at least one pony is added as an argument after `-q`.
- '-w COLUMN' Specify the screen column where the message should be wrapped, this is by default 40, which is inherited from `cowsay`.
- '-l' Lists all installed ponies. If the extension `ponyquotes4ponysay` is installed the ponies which have quotes, i.e. can be used with the `-q` option, will be mark by being printed in bold or bright (depending on the terminal.)
- '-L' Lists all installed ponies. If the extension `ponyquotes4ponysay` is installed the ponies which have quotes, i.e. can be used with the `-q` option, will be mark by being printed in bold or bright (depending on the terminal.) This options differs from `-l` by printed symonym ponies (symbolic links) inside brackes after their target ponies.

If neither `-q` is used nor any *message* is specified, `ponysay` will read the message from `stdin` (standard input); however, if no arguments are used that nothing is piped to `stdin`, a help message will be printed. If you want to use `ponysay` without arguments and enter the message by hand, you can run `cat | ponysay`.

## 3 Advanced usage of ponysay.

### 3.1 Fortune cookies

If you have `fortune` installed – this program may be named `fortune-mod` in your GNU/Linux distributions package repository – you can run `fortune | ponysay` to get a random pony reading a random fortune cookie.

By adding `fortune | ponysay` to the end [easiest way] of your `~/.bashrc` – or equivalent for your shell if use do not use GNU Bash (standard shell for most distributions now adays) – you will get the effect described in the previous paragraph every time you open a terminal.

### 3.2 Ponification

You can ponify text (i.e. replaces words search as “everyone” with “everypony”) by using `fortune | ponypipe` instead of using `fortune`. `ponypipe` can be downloaded from <https://github.com/maandree/ponypipe>. Alternatively use can use `pinkie` (or `pinkiepie`), which can be downloaded from <https://github.com/maandree/pinkie-pie>, which is just `fortune | ponypipe`. There is also a large sed script, similar to `ponypipe`: [http://www.reddit.com/r/mylittlelinux/comments/srxi/using\\_ponysay\\_with\\_a\\_ponified\\_fortune\\_warning/](http://www.reddit.com/r/mylittlelinux/comments/srxi/using_ponysay_with_a_ponified_fortune_warning/)

### 3.3 Running on TTY

If you use TTY and have a custom colour palette, you should also add to your `~/.bashrc`, before `fortune | ponysay`:

```
[[ "$TERM" = "linux" ]] &&
  function ponysay
  {   exec ponysay "$@"
      #RESET PALETTE HERE
  }
```

### 3.4 Running on screen

`screen` will adapt ANSI colour escape sequences to your terminal’s capabilities. This means that is your terminal reports itself as `xterm` in `$TERM` it ponies will lose colours; they will only use the lower 16 colours instead of the top 240 colours. By default, almost all X terminal, including `xterm` and `mate-terminal` reports themselves as `xterm` in `$TERM`, and some reports their actual name in `$COLORTERM`. So before opening `screen` you use `set $TERM to xterm-256color`, if you are using a terminal with support for `xterm`’s 256 colours; this can be done by adding to your `~/.bashrc`:

```
[[ "$TERM" = "xterm" ]] &&
  function screen
  {   export TERM="xterm-256color"
      exec screen "$@"
  }
```

## 4 Environment variables

`ponysay` supports the follow environment variables:

`'PONYSAY_BOTTOM'`

Under TTY (Linux VT), if the output is larger the the screen's height, only the beginning is printed, leaving two blank lines. If you want the buttom to be printed rather the the beginning you can export `PONYSAY_BOTTOM` with the value `yes`, `y` or `1`.

`'PONYSAY_SHELL_LINES'`

Under TTY (Linux VT), if the output is larger the the screen's height, two lines are left blank. If you want more, or less, blank lines you can export `PONYSAY_SHELL_LINES` with the value of how many blank lines you want. Naturally this takes effect if the output is not actually larger than the screen.

`'PONYSAY_FULL_WIDTH'`

You can export `PONYSAY_FULL_WIDTH` with the value `yes`, `y` or `1`, if you do not want the output to be truncated on the width to fit the terminal.

`'PONYSAY_TRUNCATE_HEIGHT'`

Export `PONYSAY_TRUNCATE_HEIGHT` with the value `yes`, `y` or `1`, if you want to truncate the output on the height even if you are not running `ponysay` under TTY.

`'PONYSAY_COWSAY'`

`'PONYSAY_COWTHINK'`

If you want to use another program than `cowsay` (the first `cowsay` found in `$PATH`), you can export `PONYSAY_COWSAY` with the value of that program. If, and only if, `PONYSAY_COWSAY` does not have any value, `cowsay` is patch with `use utf8`; to the beginning. The `use utf8`; patch is introduced to make it easier to customise `cowsay`. `PONYSAY_COWTHINK` will be used instead of `PONYSAY_COWSAY` if you run `ponythink`.

## 5 Limitations

### 5.1 Terminals

Ponysay works perfectly on `xterm`, `xterm` like terminals including `putty`, settings may however need to be customised for Unicode Character Set (UCS) support, but less well, depending on font, on VTE based terminals including `mate-terminal`.

On Linux's native terminal Linux VT (TTY) it works less well, and not good at all with Kernal Mode Settings (KMS) support. See <https://github.com/erkin/ponysay/issues/1> for more information. `ponysay` clears the screen before printing to TTY, this is because if your graphics driver supports KMS, the colours will be messed by when the ponies position moves on the screen, this is also reason why the output is truncated on the height in TTY by default.

Due to extreme limitations in `9term` `ponysay` will never be able to run on it.

Most terminals have support for 256 colours, we do however only use the top 240 colours; this is because the lower 16 colours are usally, in contrast to the top 240, customised. We assume that the top 240 colours have their standard values. In TTY with KMS support we dot have any actual (except for  $2^{24}$  + full transparency.)

### 5.2 Cowsay

When `cowsay` determines the length of a word it measures in number of bytes (in UTF-8), therefore non-ASCII words will malfomat the balloon with the message.

Further, `cowsay` does not recognise ANSI escape sequences, therefore, using colours and text styling in messages will also malfomat the balloon with the message.

`cowsay` does not support balloon, including the link between the message and the pony, customisation, other than using `cowthink`. However you can modify `cowsay` (written perl, so you can edit the installed files) to make the balloon look different, maybe using box drawing characters.

`cowsay` does support setting the minimum size of the balloon, both directions on the balloon-pony links. or any other placement of the balloon than at the top to the left.

`cowsay`'s word wrapping handles single line breaks as normal blankspaces, this messes up messaged created with programs seach as `figlet` and `TOilet`.



## 6 Problems and requests

### 6.1 Reporting bugs

If you find a bug in ponysay, install the last version from <https://github.com/erkin/ponysay>, and if it is still present, please report it at <https://github.com/erkin/ponysay/issues>. Please be as descriptive as possible, as it will help us verify it solve it faster.

### 6.2 Requesting ponies

If you want I specific pony added, ask us at <https://github.com/erkin/ponysay/issues> and we will add it. To speed the up the process, if possible, supply good pictures. Full visibly, transparent background, and pixelated are the properties that makes a picture good.

## 7 Dependencies

### 7.1 Required runtime dependencies

- `'bash'` Required for the main script [file: `ponysay`].
- `'cowsay'` This is a wrapper for `cowsay`.
- `'coreutils'`  
The main script [file: `ponysay`] uses `stty`, `cut`, `ls`, `cat`, `sort`, `readlink`, `pwd`, `head` and `tail`.
- `'sed'` Used to remove `.pony` from pony names when running `ponysay -l` and `ponysay -L`.
- `'perl'` Required to run `ponysay -l` and `ponysay -L`.

### 7.2 Optional runtime dependencies

- `'ponyquotes4ponysay'`  
For support of My Little Pony quotes with associated pony: the `-q` option. It can be downloaded at <https://github.com/maandree/ponyquotes4ponysay>.

### 7.3 Package building dependencies

- `'gcc'` Used for compiling `ponysaytruncater.c`.
- `'gzip'` Used for compressing manpages.
- `'make'` Required to run the make script.
- `'coreutils'`  
The make script uses `install`, `unlink`, `rm`, `ln`, `mkdir` and `cp`.

### 7.4 Dependencies for pony providers

- `'make'` Required to run `make -B ttyponies`.
- `'coreutils'`  
`ln` and `readlink` are used in the `ttyponies` subscript.
- `'bash'` Used in the `ttyponies` subscript.
- `'util-say'`  
Used by `make ttyponies` to build `ttyponies` from `xterm ponies`. It can be downloaded at <https://github.com/maandree/util-say>.

## 8 Installing

Before installing `ponysay`, make sure your system have the packages listed under [Section 7.1 \[Required runtime dependencies\]](#), page 7 and [Section 7.3 \[Package building dependencies\]](#), page 7 installed.

Tarballs can be downloaded at <https://github.com/erkin/ponysay/tarball/master> for bleeding edge, or from <https://github.com/erkin/ponysay/tags> for releases.

If you have `git` you clone the project URL <https://github.com/erkin/ponysay.git>.

In the terminal, `cd` into the `ponysay` directory and execute `make && make install`. This will install `ponysay` into the `/usr`, meaning you may need to run `make install` as root, e.g. by running `sudo make install`.

Now you will be to use `ponysay`, run: `ponysay "I am just the cutest pony!"`, or if have a specific pony in your mind: `ponysay -f pinkie "Partay!~"`.

`ponysay` comes with a manpage in section 6, `man 6 ponysay` (or just `man ponysay`). The man page is also available in Spanish: `man -L es 6 ponysay`.

## 9 Extensions

Ponysay does not support extensions, per se, but rather have optional features that are enabled when other packages are installed.

### 9.1 ponyquotes4ponysay

`ponyquotes4ponysay` is a package that adds support for MLP:FiM quotes that are displayed with the associated ponies. See [Chapter 2 \[Invoking ponysay\]](#), page 2 for more information. `ponyquotes4ponysay` can be downloaded at <https://github.com/maandree/ponyquotes4ponysay>.

## 10 Inner workings

### 10.1 Pony anatomy

The pony files are cow files used by `cowsay`, they are partial Perl-scripts that assign a value to a scalar variable named `$the_cow`. The files use a predefined scalar named variable named `$thoughts`, these are used to create a link between the message and the pony. The message (and the balloon) it self is printed by `cowsay` and is not defined in the pony files.

The pony images consists of white space, lower half blocks [U+2584], upper half blocks [U+2580] and ANSI colour sequences (CSI m), and, in TTY, colour value change sequences (OSI P).

### 10.2 Truncation

Ponysay supports three type of output truncations, cutting away overflow on the right and truncation the height by either keeping the bottom or keeping the top. By default the latest is enabled under TTY, cutting away overflow on the right is always enabled by default.

Truncating the height in TTY is required under Kernel Mode Settings (KMS) support to keep the colours from being messed up ad the ponies is moved in the screen during print; this done either by piping to `head` (keeps the top) or by piping to `tail` (keeps the bottom.) `head` and `tail` takes as argument the number of lines to keep at most.

The size of the terminal, measured in characters, is fetched from `stty size`, which returns `HEIGHT WIDTH`, and cut it the used to get either the height or the width. This required on GNU Coreutils; earlier `tput rows` and `tput cols` were used, this however required, the only de facto standard, package `ncurses`, some shells have environment variables for this.

For truncation the width, we have a custom program, named `ponysaytruncater`, that is installed to `/usr/lib/ponysay/truncater`. It recognised UTF-8 ANSI escape sequences, including OSI P and CSI m, which is essential for the truncation to be correct. It also expands tabs to every eighth coloumn and resets the background colour when needed, and writes ANSI escape sequences that are on the left side of the truncation. The truncater stops CSI sequences on the first ASCII letter ([a-zA-Z]), but also stops escape sequences after the first character after the initial escape if it is not either [ (CSI) or ] (OSI). For support UTF-8, to handles all bytes that do not match `10xxxxxx` as beginning of a character.

### 10.3 Languages

Ponysay is written primarily in GNU Bash shell script (POSIX compliant); the truncater is however written in C, because it is simple, fast, does not pose addition dependencies, and is easy to do byte hacking in.

Sometimes shell is too slow, in these cases [that exist today] Perl is used; Perl is already required by `cowsay`, is similar to shell, but also supports hash tables. [maandree: I actually learned Perl just for this.]

# 11 Contributing

## 11.1 Providing ponies

Most pony images are browser ponies or desktop ponies, browser ponies is a port of desktop ponies, implementing it in JavaScript. Browser ponies are available at <https://github.com/panzi/Browser-Ponies>. Desktop ponies are available at <http://desktop-pony-team.deviantart.com/>.

There is also a collection of ponies that are not yet pixelated in a Java reimplementa-tion: <https://github.com/maandree/unisay/tree/develop/dev/newponies>

There is a checklist named "pony-checklist" at the top level of the project directory. You can use the check which ponies are added and which are not.

New ponies can be created from regular images by using util-say, which is available at <https://github.com/maandree/util-say>. `img2xterm` (<https://github.com/rossy2401/img2xterm>) was used earlier, but util-say tries to optimise the images in some aspects: as good as possible for low capability terminals, tries to place the pony-balloon link, displayed as good as possible when marked in the terminal (somewhat compromised by the first aspect,) and same width on all rows.

Using util-say:

```
img2ponysay -2 -- SOURCE_IMAGE > PONY_FILE
```

```
PONY_FILE should end with .pony and be located in ponies/
```

```
Omit -2 if the source image does not use double pixel size.
```

For more information see:

```
https://github.com/maandree/util-say/wiki/img2ponysay
```

When a pony is added please also add a ttypony version, i.e. the pony files used in TTY, but if you don't please state so in the pull request so we do not miss the create it; the simplest way to do this is to run `make -B ttyponies` after adding the ponies to `ponies/`, running `make -B ttyponies` will build (or rebuild) all ttyponies with a pony present in `ponies/`, and creates all needed symlinks.

To be able to run `make -B ttyponies` you must have the packages listed under [Section 7.4 \[Dependencies for pony providers\]](#), page 7.

## Appendix A Ponysay contributors

Active developers of ponysay:

- Erkin Batu Altunbaş
- Mattias Andrée
- Sven-Hendrik Haase
- Pablo Lezaeta
- Jan Alexander Steffens

Patchers and other contributors of ponysay:

- Elis Axelsson
- Duane Bekaert
- Kyah Rindlisbacher
- James Ross-Gowan
- Louis Taylor
- Jannis

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