

NAME

apple2 – Apple][display emulator

SYNOPSIS

apple2 [--display *host:display.screen*] [--foreground *color*] [--background *color*] [--window] [--root] [--window-id *number*] [--mono] [--install] [--visual *visual*] [--program *command to run*] [--basic] [--slideshow] [--text] [--meta] [--esc] [--bs] [--del] [--fast] [--fps]

DESCRIPTION

The *apple2* program simulates an original Apple][Plus computer in all its 1979 glory. It also reproduces the appearance of display on a color television set of the period.

There are 3 modes: basic, slideshow, and text. Normally it chooses a mode randomly, but you can override with the *--basic*, *--slideshow*, or *--text* options.

In basic mode a simulated user types in a Basic program and runs it.

In slideshow mode it chooses a number of images from the image source you configured into XScreenSaver and displays them within the limitations of the Apple][display hardware. With only 6 available colors, you can only make out the general shape of the pictures.

In text mode it displays the output of a command or the contents of a file or URL (via the default **xscreen-saver-text(6)** program, which can be overridden with *--program*).

In text mode, it is also a fully functional (if anachronistic) vt100 terminal emulator.

OPTIONS

apple2 accepts the following options:

--window

Draw on a newly-created window. This is the default.

--root

Draw on the root window.

--window-id *number*

Draw on the specified window.

--mono

If on a color display, pretend we're on a monochrome display.

--install

Install a private colormap for the window.

--visual *visual*

Specify which visual to use. Legal values are the name of a visual class, or the id number (decimal or hex) of a specific visual.

--basic

Choose basic mode

--slideshow

Choose slideshow mode

--text

Choose text mode

--program *sh-command*

In text mode, the command to run to generate the text to display. This option may be any string acceptable to */bin/sh*. The program will be run at the end of a pipe, and any characters that it prints to *stdout* will be printed on the Apple][display. If the program exits, it will be launched again after 3 seconds. Default: **xscreensaver-text(6)**.

In text mode, *apple2* emulates a vt100 terminal running on a 40x24 uppercase-only screen.

For example:

```
apple2 --text --program 'ping apple.com'
apple2 --text --program 'ps -e'
apple2 --text --program 'od -txCz -w7 /dev/urandom'
apple2 --text --program 'cat /dev/random'
apple2 --text --fast --program 'emacs -nw -q -f life'
apple2 --text --fast \
    --program 'emacs -nw -q --eval "(hanoi 5)"'
```

You can also use *apple2* as an extremely lo-fi replacement for the **xterm**(1) and **gnome-terminal**(1) terminal emulators:

```
apple2 -text -fast -program tcsh
```

- pty** In *--text* mode, launch the sub-program under a pty so that it can address the screen directly. This is the default.
- pipe** In *--text* mode, launch the sub-program at the end of a pipe: do not let it address the screen directly.
- esc** When the user types a key with the Alt or Meta keys held down, send an ESC character first. This is the default.
- meta** When Meta or Alt are held down, set the high bit on the character instead.
- del** Swap Backspace and Delete. This is the default.
- bs** Do not swap Backspace and Delete.
- fast** Normally, characters are printed at the speed of an original Apple II computer; however, when using this program as a terminal emulator, the novelty of those 300 baud characters might wear off. You can use the *--fast* option to speed things up a bit.
- fps** Display the current frame rate and CPU load.

TERMINAL EMULATION

By default, *apple2* allocates a pseudo-tty for the *--text-mode* sub-process to run under. This has the desirable side effect that the program will be able to use **ioctl**(2) to fetch information about terminal parameters and window size, which many programs (such as **top**(1)) need to run properly. *apple2* will also set the environment variable *TERM* to *vt100* in the child process.

Any characters typed on the *apple2* window will be passed along to the sub-process. (Note that this only works when running in "window" mode, not when running in *--root* mode under *xscreensaver*.)

ENVIRONMENT

DISPLAY

to get the default host and display number.

XENVIRONMENT

to get the name of a resource file that overrides the global resources stored in the *RESOURCE_MANAGER* property.

XSCREENSAVER_WINDOW

The window ID to use with *--root*.

TERM to inform the sub-process of the type of terminal emulation.

X RESOURCES

Notable X resources supported include the following which correspond to standard TV controls: **analogTVTint**, **analogTVColor**, **analogTVBrightness**, and **analogTVContrast** which correspond to standard TV controls. They range from 0 to 100, except for tint which is an angle between -180 and +180.

TRADEMARKS

Apple][and Applesoft are trademarks of Apple Computer.

SEE ALSO

xscreensaver(1), **bsod(6)**, **xscreensaver-text(6)**, **fortune(1)**, **phosphor(6)**, **starwars(6)**, **ljlatest(6)**, **dadadodo(1)**, **webcollage(6)**, **driftnet(1)** **EtherPEG**, **EtherPeek**, **console_codes(4)**.

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