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# Script Recording

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( Scripting Terminal Sessions )

Presentation shared with the

St. Louis Unix Users Group

2023-11-08

# Welcome



# Introduction

- [https://www.sluug.org/bio/Stan\\_Reichardt](https://www.sluug.org/bio/Stan_Reichardt)
- Benevolent dictator for life of Newlinux.org .
  - Arbitrary, cranky, profane, not politically correct, and old.
  - Acronym, name and term pronunciation use is by Missouri rules.
  - Tends to get terminology mixed up ( Phil and Ed correct him ) .
  - Very much a Linux dogmatist ( near Linux bigot ) .
  - Wears belt and suspenders.





# Who uses script

- A commonly used scripting technique uses history of keyboard input.
  - The hidden `~/.history` file is frequently extracted and used.
  - `~$ man 3 history`
  - `~$ man, or info, or pinfo history (3)`
- Using **script** and affiliated commands are not well known.
- Only used by someone that knows about them.
- On Unix and Linux ( don't know about other Operating Systems ) .



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# What commands

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## Three related commands:

- **script** (1) - make typescript of terminal session
- **scriptlive** (1)- re-run session typescripts, using timing information
- **scriptreplay** (1) - play back typescripts, using timing information



# What purpose

- Document what you do.
- Build executable shell scripts using **script** with what you already do.
  - Built by recording your keystrokes.
  - Visible history of the commands you give for execution.



# Why use script?

- The **script** command will record the terminal.
  - Captures what was typed.
  - Captures results.
  - Can be played back in real time ( accelerated or slowed ) .
- Can document, prove or teach how a job/project/step/task was done.
- It is readily available ( already installed on many distributions ) .
- Can be used where there is no graphical environment ( no GUI ) .
  - Across a simple SSH connection.
  - On servers.



## When to use

- Do NOT to use:
  - When you will be using a Graphical User Interface ( GUI ) tool.
    - The GUI will cause capture of too many problematic globs.
    - Should severely limit use to Command Line Interface ( CLI ) only.
  - When you want to use something more. Like SimpleScreenRecorder.
- When to use.
  - When you want more than just your history files.
  - When you want to capture results of commands that you ran.
  - On a server, where you should not load graphical tools.
  - Ad hoc, when needing something quickly ( is usually already installed ) .
  - Safely used within terminals run within GUI sessions.



# Available

- The **script** command is part of the **util-linux** package which can be downloaded from Linux Kernel Archive
  - `<https://www.kernel.org/pub/linux/utils/util-linux/>`
- The **util-linux** package is not always automatically installed.
- My experience has been that it is usually available.



# GUI Alternatives

- In distant past I used proprietary package on MS Windows XP.
  - So long ago, that I don't remember it's name ( nor care ) .
- My full screen GUI capture choice is **SimpleScreenRecorder**.
  - <https://www.maartenbaert.be/simplescreenrecorder/>
  - <https://github.com/MaartenBaert/ssr/>
  - Joe Collins, [EzeeLinux.com](http://EzeeLinux.com) recommended and uses this package.
  - Free, Linux only and used with X Windows System.
- Encroachment by Wayland may become a problem.
- To find alternatives:
  - <https://alternativeto.net/> ( 114 alternatives listed ) .



# How to get started

- How to get started ( RTFM both man pages and info pages ) .
  - Find the man page for script ( NO EXAMPLES )
    - ~\$ man script
    - ~\$ info script
    - ~\$ **pinfo** script ( my preferred way to view man pages and/or info pages ) .
  - Looking for relevant man pages ( ~\$ apropos script -- gives 121 results ) .
  - Just relevant man pages for script ( use ~\$ apropos typescript ) .
    - script (1) - make typescript of terminal session ( NO EXAMPLES )
    - scriptlive (1) - re-run session typescripts, using timing information
    - scriptreplay (1) - play back typescripts, using timing information



# EXAMPLE from `scriptreplay`

- EXAMPLE from `scriptreplay` man page :

```
% script --log-timing file.tm --log-out script.out
```

```
Script started, file is script.out
```

```
% ls
```

```
<etc, etc>
```

```
% exit
```

```
Script done, file is script.out
```

```
% scriptreplay --log-timing file.tm --log-out script.out
```



# EXAMPLE from scriptlive

- EXAMPLE from **scriptlive** man page:

```
% script --log-timing file.tm --log-in script.in
```

```
Script started, file is script.out ## ( ? )
```

```
% date
```

```
<etc, etc>
```

```
% exit
```

```
Script done, file is script.out ## ( ? )
```

```
% scriptlive --log-timing file.tm --log-in script.in
```

- Did NOT look right to me. Not understanding results.



# How to capture

- How to get started
  - Example:
- Build your own scripts
- How to save and exit
- How to abort if you screw up
- How to fix errors.
- How to write code with script



# How to play back

- How to play back
  - Reconstruct
  - Trace
- How to set with timing information.



# Demonstration examples

- This may be optional slide and might be placed earlier.
- If there is enough time left, we will try to demonstrate.
- Following slides may just be reminders of what you want to demo.



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# What are your questions?

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# Questions