

# Computer Working By Itself, Beautiful, Isn't It?

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# Why?

- To test your GUI (and WUI)
- To import the data
- To make a movie/demo



# The Tools

- `X11::GUITest`
- `X11::GUITest::record`
- `X11::protocol`
- X11 utilities
- XTest extension enabled.



# Testing Application

- Complete layout control
- Debug Mode for your widgets
- Log output and catch it
- Use cut-and-paste



# Testing WUI

- Partial layout control
- Gtk/Gdk diagnostic tools
- Parse the source!
- Cut and paste again



# Importing Data

- Try to determine the toolkit!
- X11 basic utilities:
  - xwininfo
  - xlsatoms
  - xprop
  - xset q
  - xdpyinfo



# Importing Data (II)

- Try attaching a query agent
- X11::Protocol – low level access
- Reverse engineering...
  - X11::GUITest::record
  - xev (ugh)
- Application rip



# Making a Movie/Demo

- Run the recording session
  - Using `X11::GUITest::record`
  - Using `xev`
- Convert it to `X11::GUITest` script
- Set timings between calls
- Optimize trajectories



# X11::GUITest Overview

- Consistent style and documentation
- Launching the Application
  - `StartApp`
  - `WaitWindow*`
- Getting information
  - `GetMousePos`
  - `GetWindowFromPoint`
  - `GetChildWindows`



# X11::GUITest Overview (II)

- Input functions
  - \*InputFocus
  - \*MouseButton
  - \*Key
  - SendKeyStroke
- Window management
  - Move/ResizeWindow
  - Raise/LowerWindow



# Caveats

- Window manager/Desktop Environment
- Window focus/control
- Key delays, freezes
- Selection buffers
  - PRIMARY vs. CUT\_BUFFERN
  - Toolkit clipboards



# Other Platforms

- MS Windows:
  - Win32::GUITest
- OS/X:
  - X11?
- (N)Curses:
  - No real widgets



**Thank You**

