Accerciser

15 minutes a day for better accessibility

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Outline

- Introduction to accessibility
- Basic testing
- Introduction to GNOME's accessibility framework
- Introduction to Accerciser
- Simple debugging example
- The last mile to the screen reader
- Summary
- Q&A
Who could we be missing?

- People with:
  - Blindness
  - Low-vision
  - Color blindness
  - Motor disabilities
  - Deafness
  - Various cognitive disabilities
  - Photosensitive epilepsy
  - And more...
Why are we missing them?

- Visual user interfaces
- Fixed display and font sizes
- Dependence on colors
- Audio prompts
- Dependence on mouse or multi-key gestures
- Flashing or rapidly changing images
- Complex or cluttered interfaces
Is my application accessible?
Lies

- Bling is inaccessible
- I need to be familiar with a screen reader to be certain that my application is accessible
Theme compliance

- Fonts configurable and scale accordingly
- High contrast/inverse themes look good
- No color dependencies
Keyboard support

- Functional with exclusive keyboard use
- Consistent keyboard bindings
- Mnemonics work
- Keyboard shortcuts work, and make many shortcuts available
- Logical order when tabbing
- Keyboard navigation conventions are used
Assistive Technology Service Provider Interface

Application Layer
- Mozilla
- GNOME/GTK+ Applications
- Java Applications
- nsiAccessible
- GAIL
- javax.accessibility

ATK-bridge

Platform Layer
- AT SPI (ORB)

AT Layer
- On-screen Keyboard
- Screen Reader
- Test Tools
A Simple User Interface

Interactive Dialog

- Entry 1: John
- Entry 2: Doe
- OK Non-stock Button
- OK Non-stock Button
- OK OK
Introducing Accerciser

- Has the same perspective of the user interface as an assistive technology
- Written in Python
- Plugin architecture
- Interactive Python console
- Customizable layout
- Accessible!
Accercising your application

- Visual overview, potential accessibility issues:
  - Components with no textual labels
  - Labels which label
  - Custom widgets
- Uncover the truth!
The last mile
Message dialogs

- Catches user's attention
- Steals focus
- Interrupts work flow
- Good for urgent messages
- Bad for mildly informative notifications
Fancy toaster/bubble/pop-up things

- Catches user's attention
- Does not steal focus
- Unobtrusive

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