Equalizer

Quickstart and Demonstration Guide

Latest version at http://www.equalizergraphics.com/documents/EqualizerGuide.pdf

Building Equalizer

- Install a binary version **or** build the subversion source tree:
- Linux, Mac OS X:

  ```
  cd src; make
  ```

  - set library path as printed by make
- Windows:
  - Build src/VS2005/Equalizer.sln

Running the Server

- Linux:

  `(./server/)eqServer.<arch> [config]`

- Mac OS X:

  `(./server/)eqServer [config]`

- Windows:
  - debug ‘Equalizer Server’
  - OR: `build\VS2005\win32\debug\eqServer`

Running the Example Application

- Linux:

  ```
  (cd src/examples/eqPly;) ./eqPly.<arch>
  ```

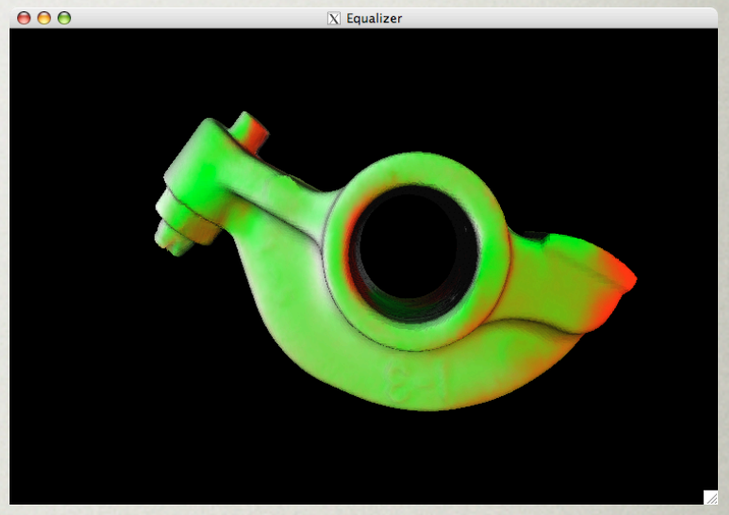
- Mac OS X:
  - start X11

    ```
    (cd src/examples/eqPly;) ./eqPly
    ```

- Windows:
  - debug ‘eqPly Example’
  - OR: `build\VS2005\win32\debug\eqPly.exe`

Running the Example Application

- eqPly runs now with default config
  - one window, one pipe thread, one process
- Left mouse button rotates
- Middle mouse button zooms
- Right mouse button moves
- Exit by pressing <Esc>, all three mouse buttons or using window close button



Exploring Equalizer

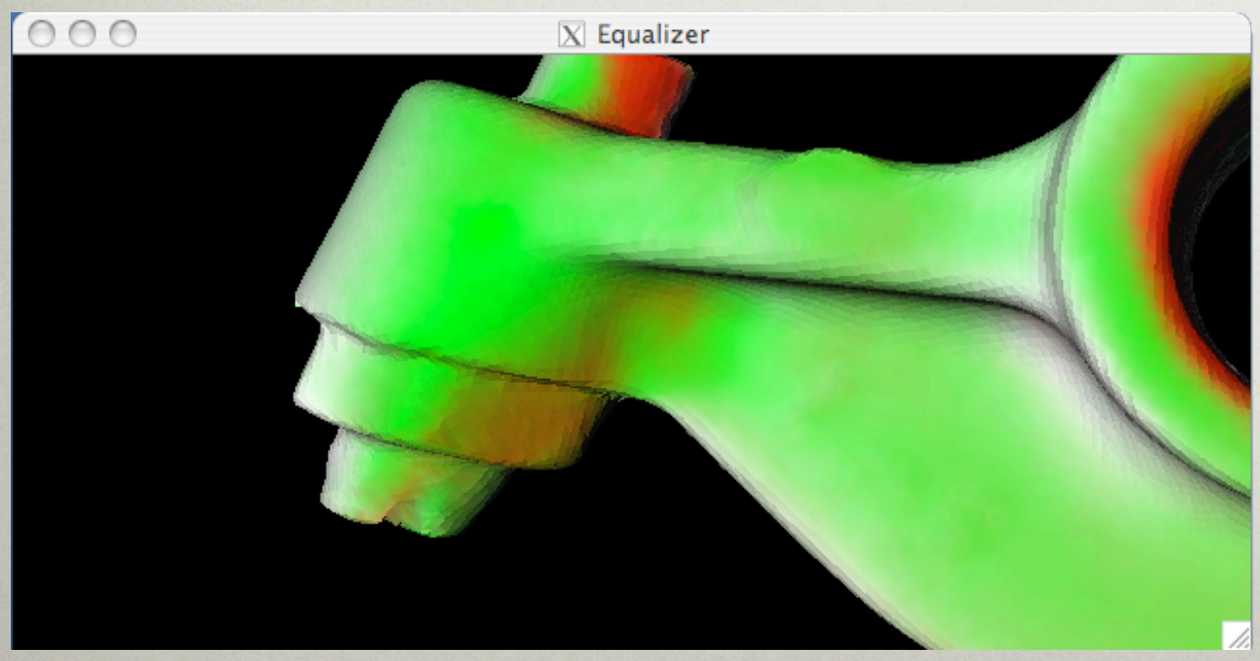
- To use a different config:
  - exit eqPly; stop server
  - start server with new config:

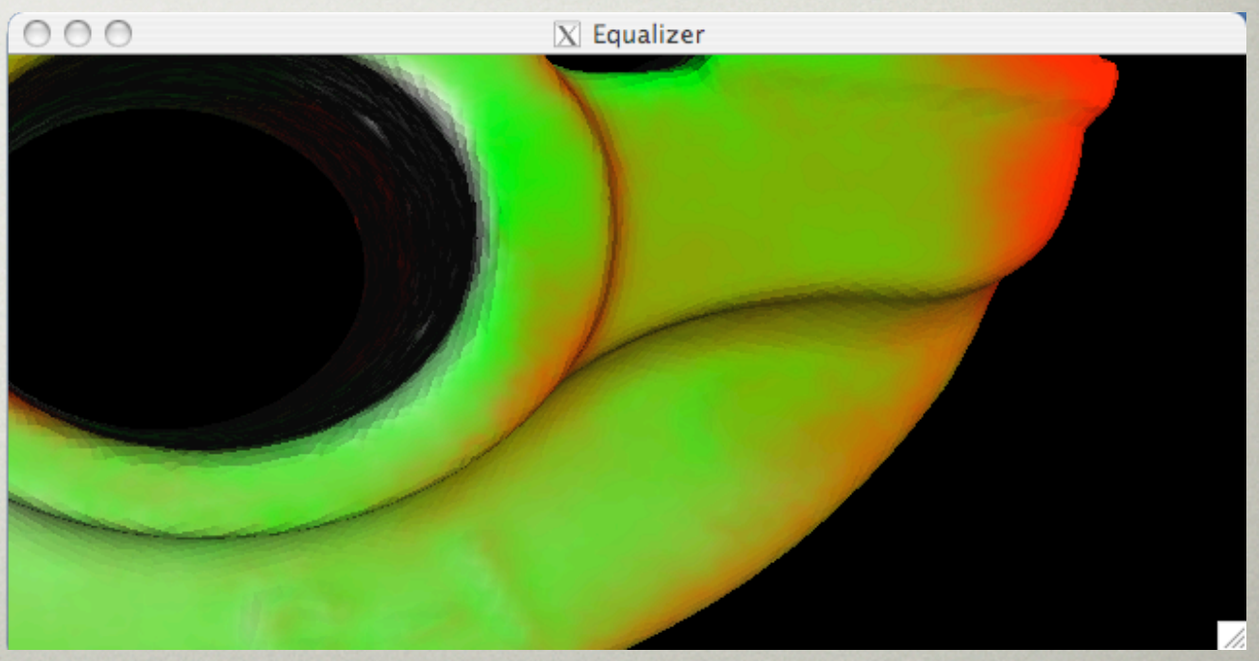
```
eqServer (/usr/local/share/Equalizer/)configs/2-window.eqc
```

  - run eqPly again
- Load model with '--model <name>'
  - Sample Models at www.cyberware.com

2-window

- Two windows, one pipe thread
- Compound wall descriptions produce side-by side image

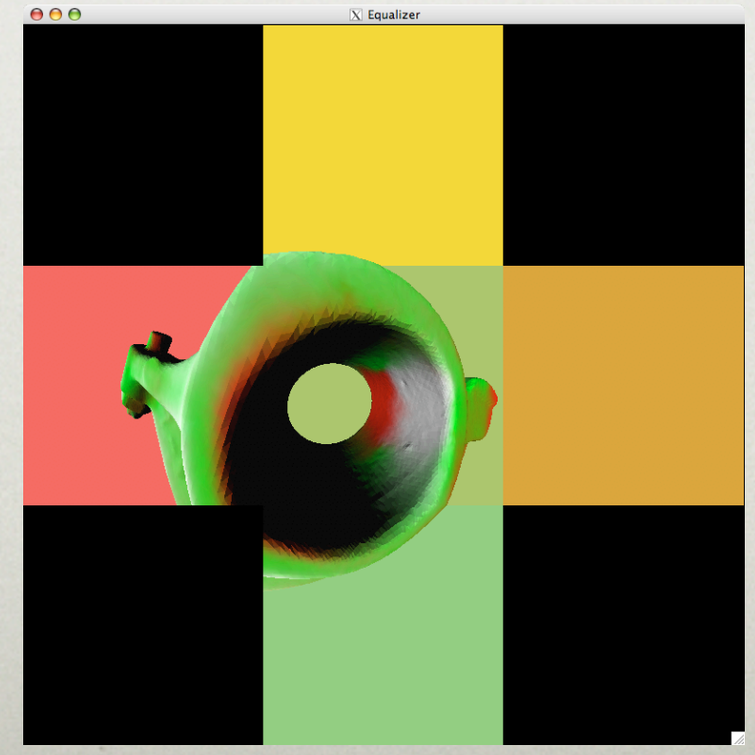




2-window

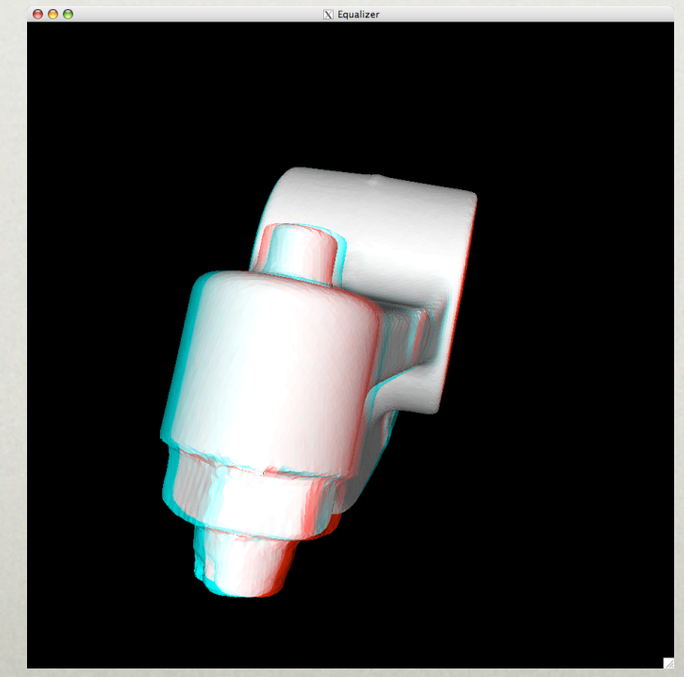
- Set EQ_TAINT_CHANNELS to get channel background colors
- One window, five channels

- Simulate a CAVE™ on a single PC



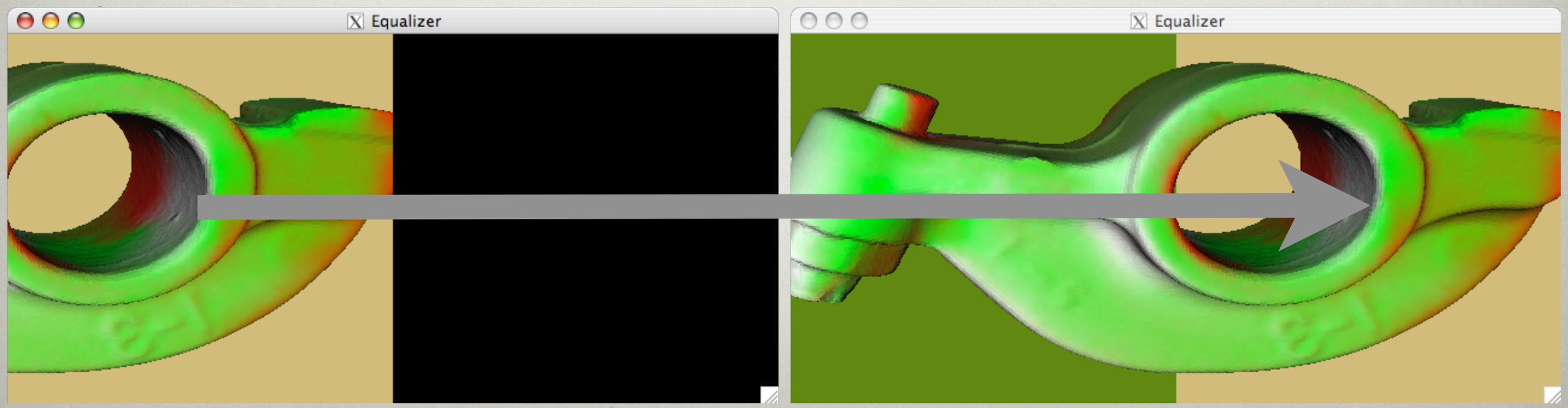
1-pipe.stereo.anaglyph

- Start eqPly with option -b
- Use anaglyphic (colored) glasses
- Two sequential eye passes
- Support for active (quad-buffer) stereo



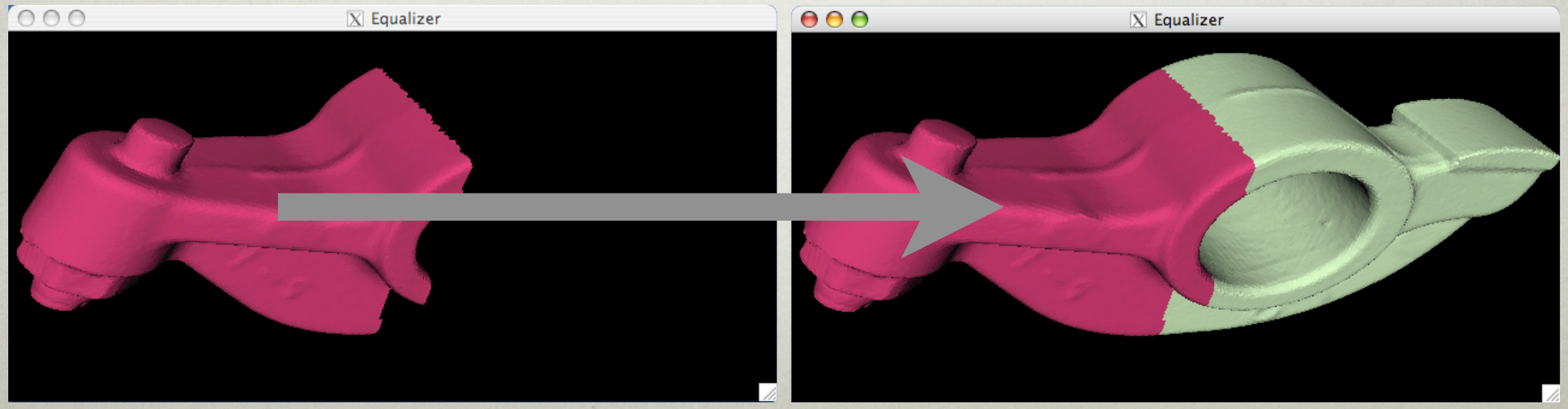
2-window.2D

- Left window renders half of the viewport for right window
- For deployment, windows are on separate pipes (GPUs) for scalability



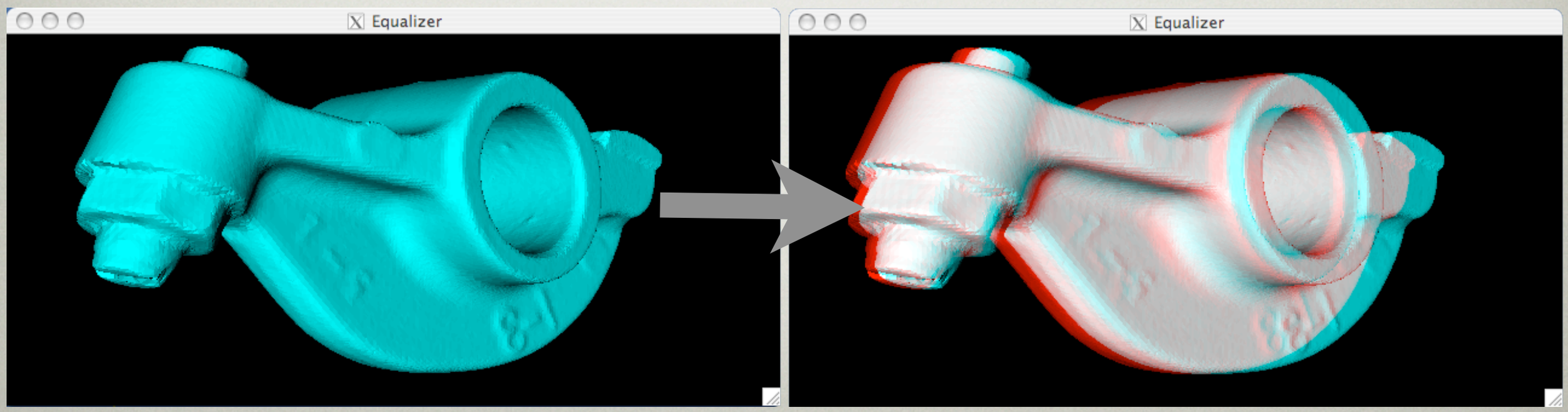
2-window.DB

- Left window renders part of the database for the right window
- Coloring is implemented in eqPly
- Data is combined using Z-Buffer information



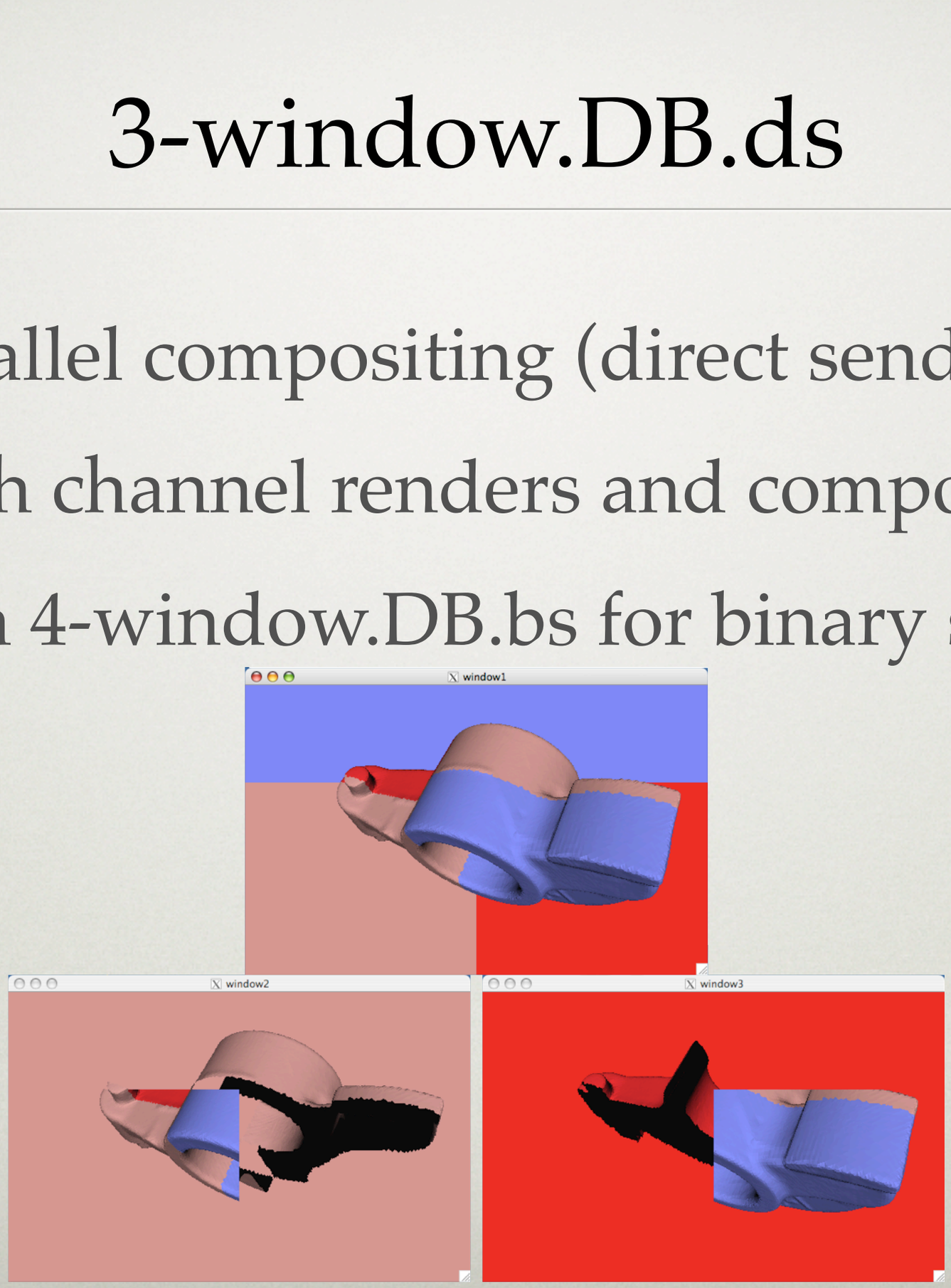
2-window.EYE.anaglyph

- Left window renders right eye
- Right window renders left eye
- Very good scalability on two pipes
- Also works for active stereo



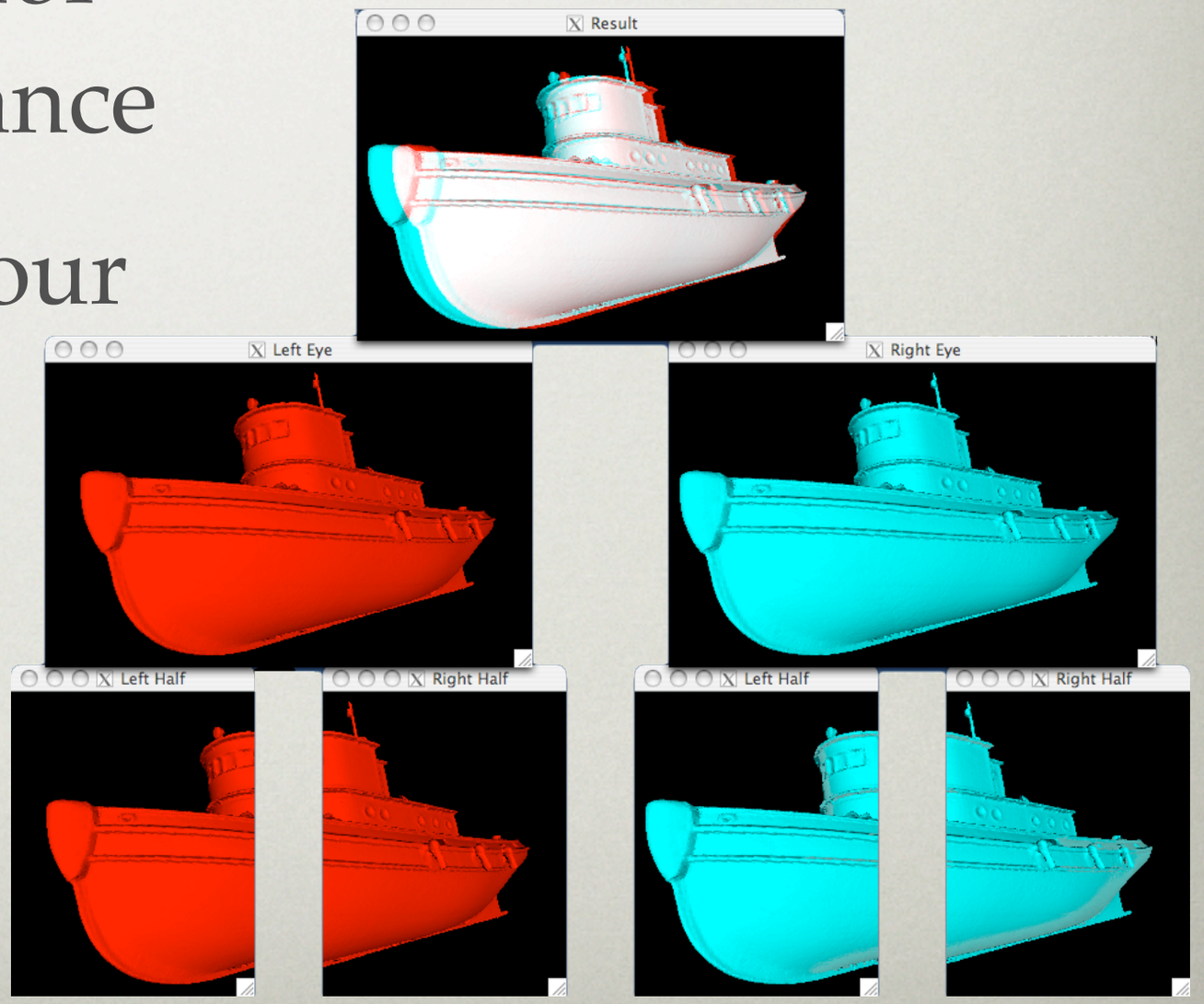
3-window.DB.ds

- Parallel compositing (direct send)
- Each channel renders and composites
- Run 4-window.DB.bs for binary swap



7-window.EYE.2D

- Multilevel configuration
- Combine modes for optimal performance
- Deployment on four pipes



Next Steps

- Cluster example configurations are named *n*-node.*.eqc
  - Password-less ssh setup needed
    - Change hostnames to reflect your setup
    - ConfigTool creates some configurations
- Active stereo requires stereo visuals
- Read configuration file specification