PRIME 2014 BRISBANE AUSTRALIA

PROJECT:

KEPLER WORKFLOWS FOR MRI IMAGE GENERATION

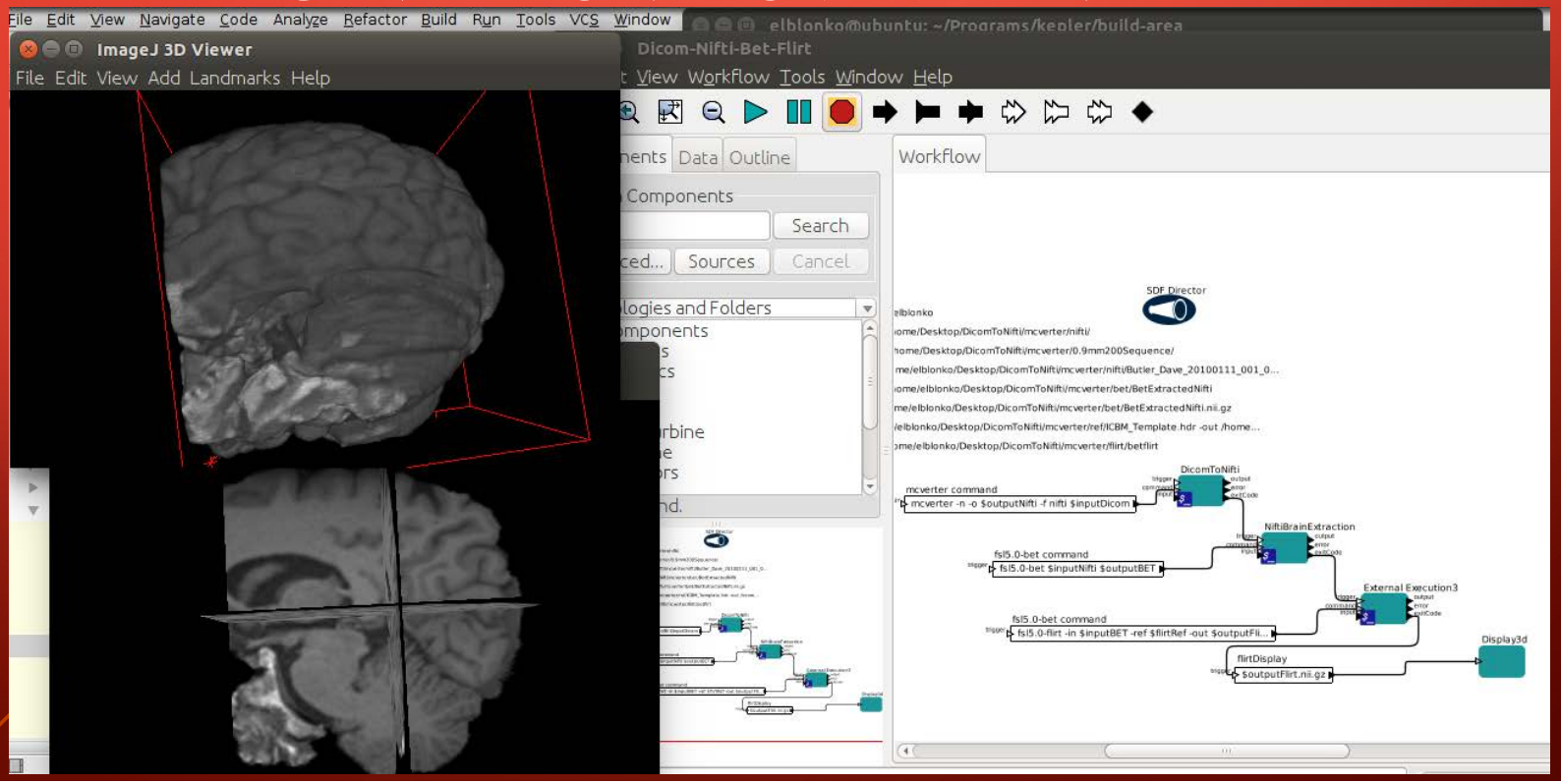
WEEK 7 AUGUST 12TH REPORT

BY MATTHEW SCHWEGLER

IMAGEJ 3D VIEWER KEPLER ACTOR

- Functional 3D Viewing Actor
  - I created a functioning 3D view actor for MRI images inside of Kepler
  - Actor functionalities
    - Display's 3D images as either a volume or a series of ortho slices in 3D
      - The Ortho slices can be scrolled in the x,y,z axes.
    - The user can toggle to display one or both formats at once
    - The user can define the input as a variety of natively supported formats in ImageJ or additionally I added a plugin for NIFTI file types.

PICTURE OF WORKFLOW RESULTING IN IMAGE GENERATION FROM WITHIN KEPLER



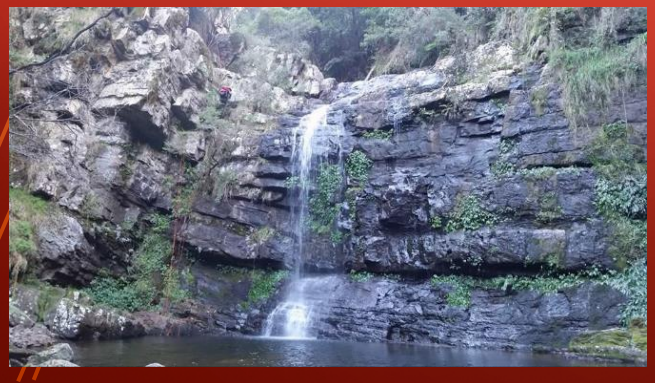
FINISHING TOUCHES

- Hoang's Kepler Portal
  - The last thing I aim to accomplish before leaving is to transplant my Kepler workflow and potentially 3D view actor into Hoang's online Kepler portal for demonstration.
- Documentation
  - I will work to create a trail of documentation for exactly how I completed each step of my project in a format that will hopefully allow other PRIME students to easily follow in my foot steps if they find this subject matter of interest.

JENOLAN CAVES

Take note of the small Joey in its mothers pouch.

BLUE MOUNTAINS CANYONEERING



ACKNOWLEDGMENTS

- My hosts in Australia
  - David Abramson, Hoang Nguyen, Andrew Janke, The University of Queensland
- My mentor in UCSD
  - Ilkay Altintas
- Financial supporter: PRIME
  - Dr. Gabriele Wienhausen