Hephaestus

final presentation
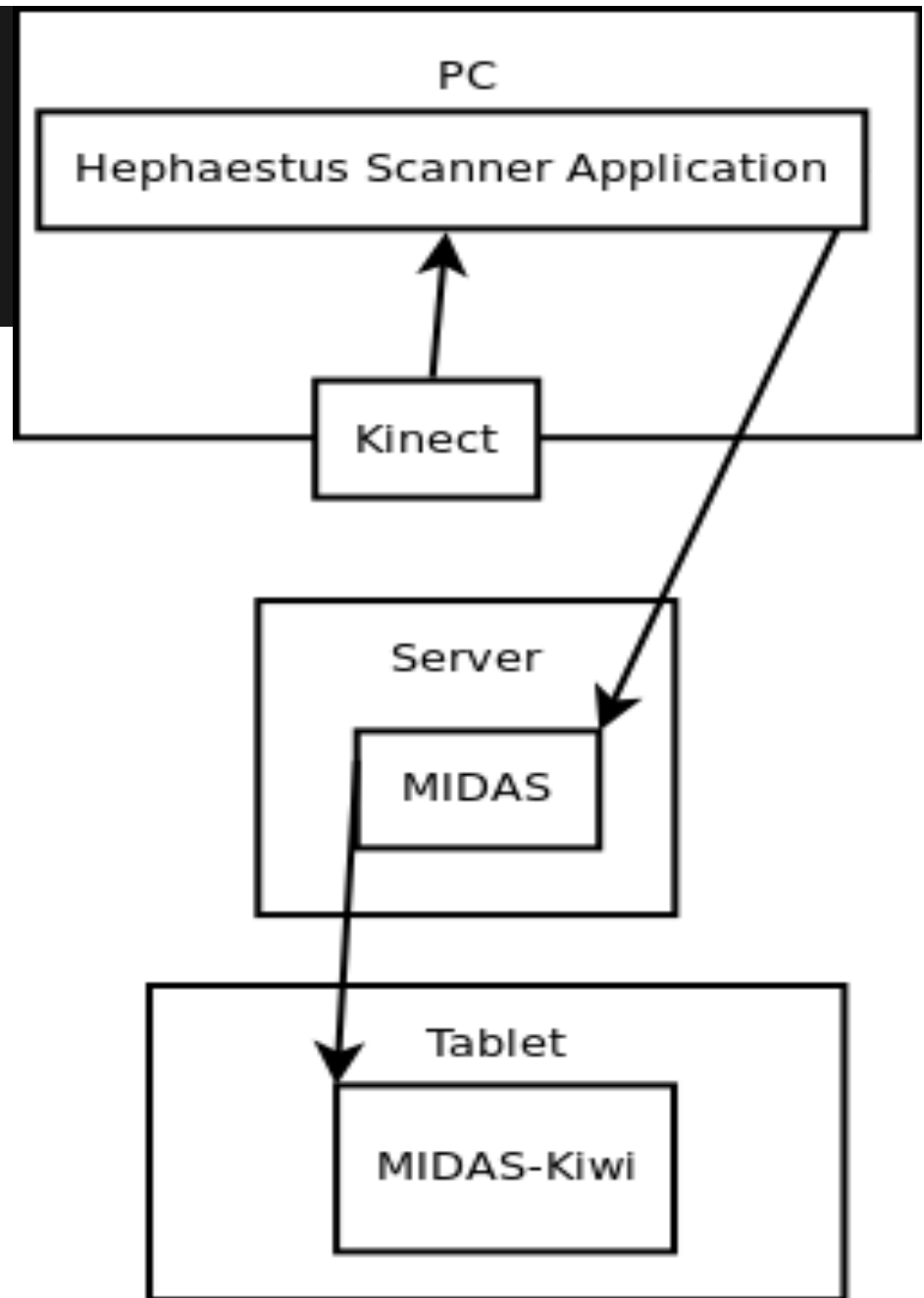
Christopher Leslie, Frank Ferro, Hal Canary
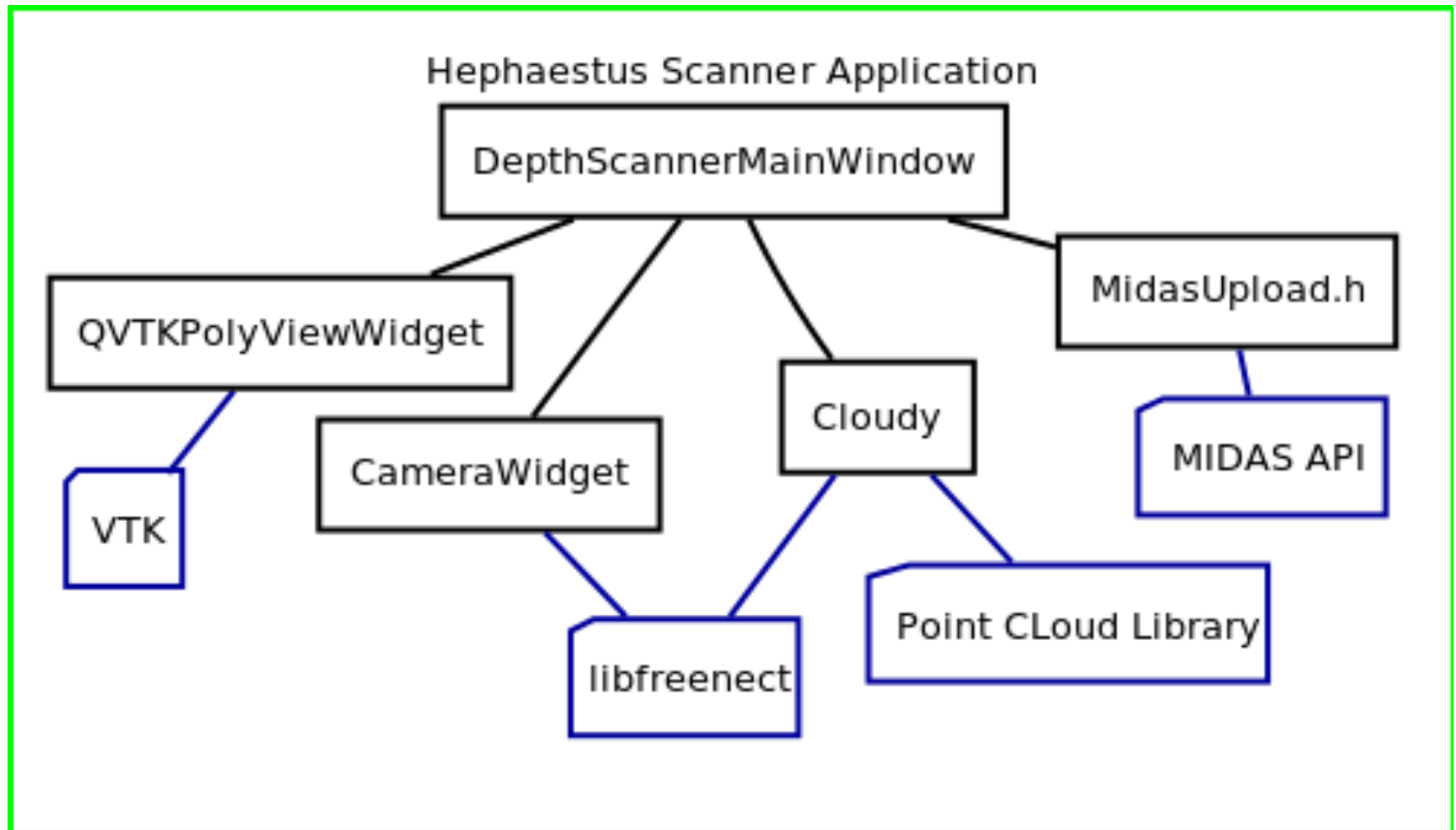hephaestusvision.github.com
2012-12-10

Demo

- Create new Midas Account (Hal)
- User interface design (Hal)
- Algorithm to combine point clouds (Chris)
- Upload (Hal)
- Ipad - login new user (Frank)

Architecture

PC

Hephaestus Scanner Application

Kinect

Server

MIDAS

Tablet

MIDAS-Kiwi

Architecture

Technology

General

- Qt
- Git
- Cmake

Specific

- OpenKinect
- VTK
- Point Cloud Library
- Midas
- VES/Kiwi

Lessons Learned

- Identify the hardest and most risky part of the project early.

  We should have assigned more than one person to work on the algorithms, since that was the hardest part.

Lessons Learned

- Make the most of version control early on, to make sure that everyone is comfortable contributing back to the code base and comfortable working together.

Lessons Learned

- Use Linux for development.

```
# Installing the Point Cloud Library
sudo add-apt-repository \
    ppa:v-launchpad-jochen-sprickerhof-de/pcl
sudo apt-get update
sudo apt-get install libpcl-all
```

Reflection

Different ways to combine point cloud.
● User alignment
● RGB data

Future Alternatives
● PCL/Kinect fusion implementation