DASL 107 Introduciton to ROS
Week 1

Agenda

- Review Syllabus

- What is ROS

- What software to use for the class
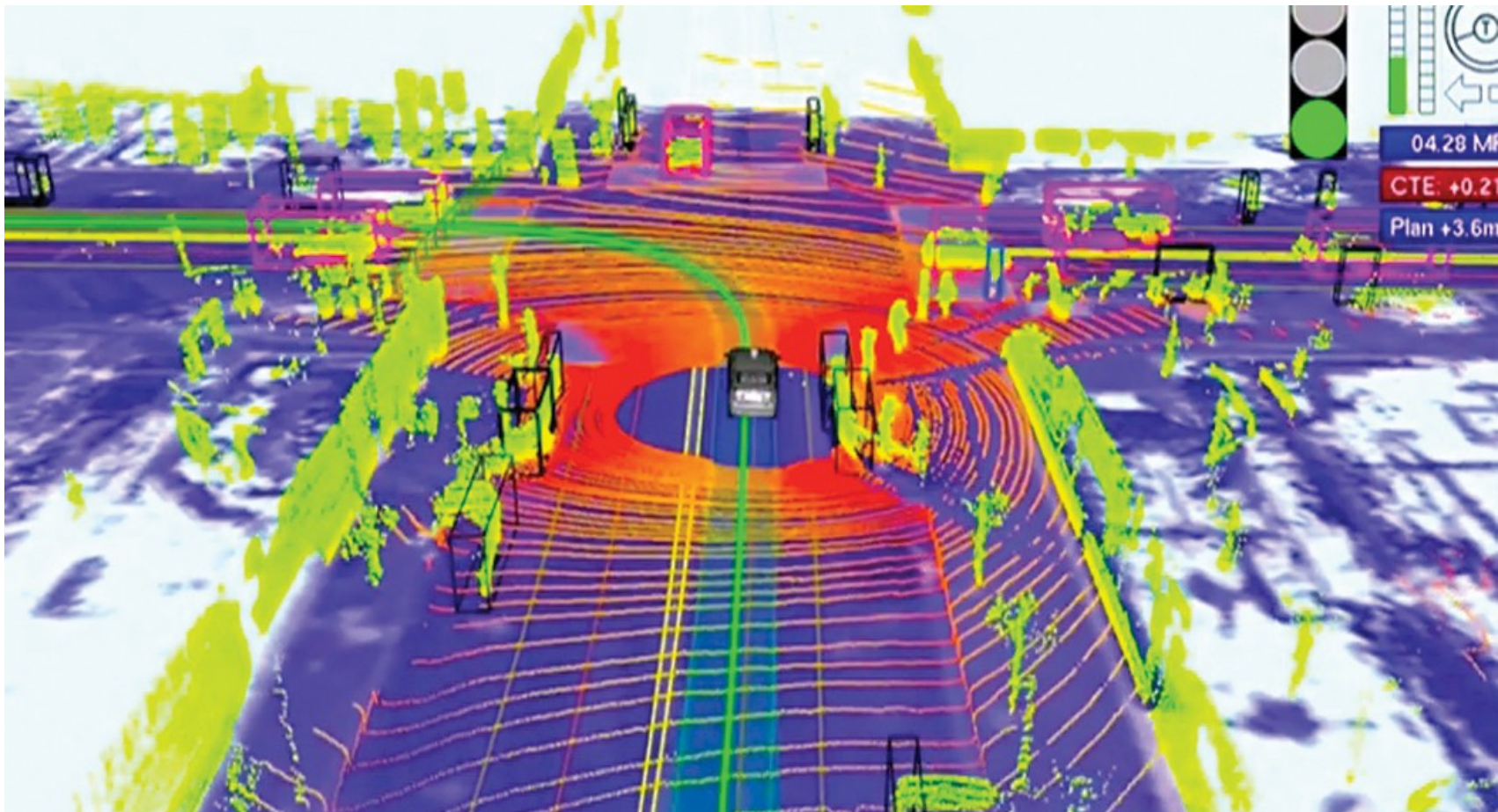
- What kind of workload to expect

Syllabus

- http://www.daslhub.org/unlv/wiki/lib/exe/fetch.php?media=courses:ros:ros-syllabus.pdf
-

What is ROS?

- Robot Operating System
  - Communication Middleware Layer

What is ROS?

What is ROS?

- 2007 Stanford Artificial Intelligence Lab
  - Switchyard
  - STAIR robot
- 2008 Willow Garage
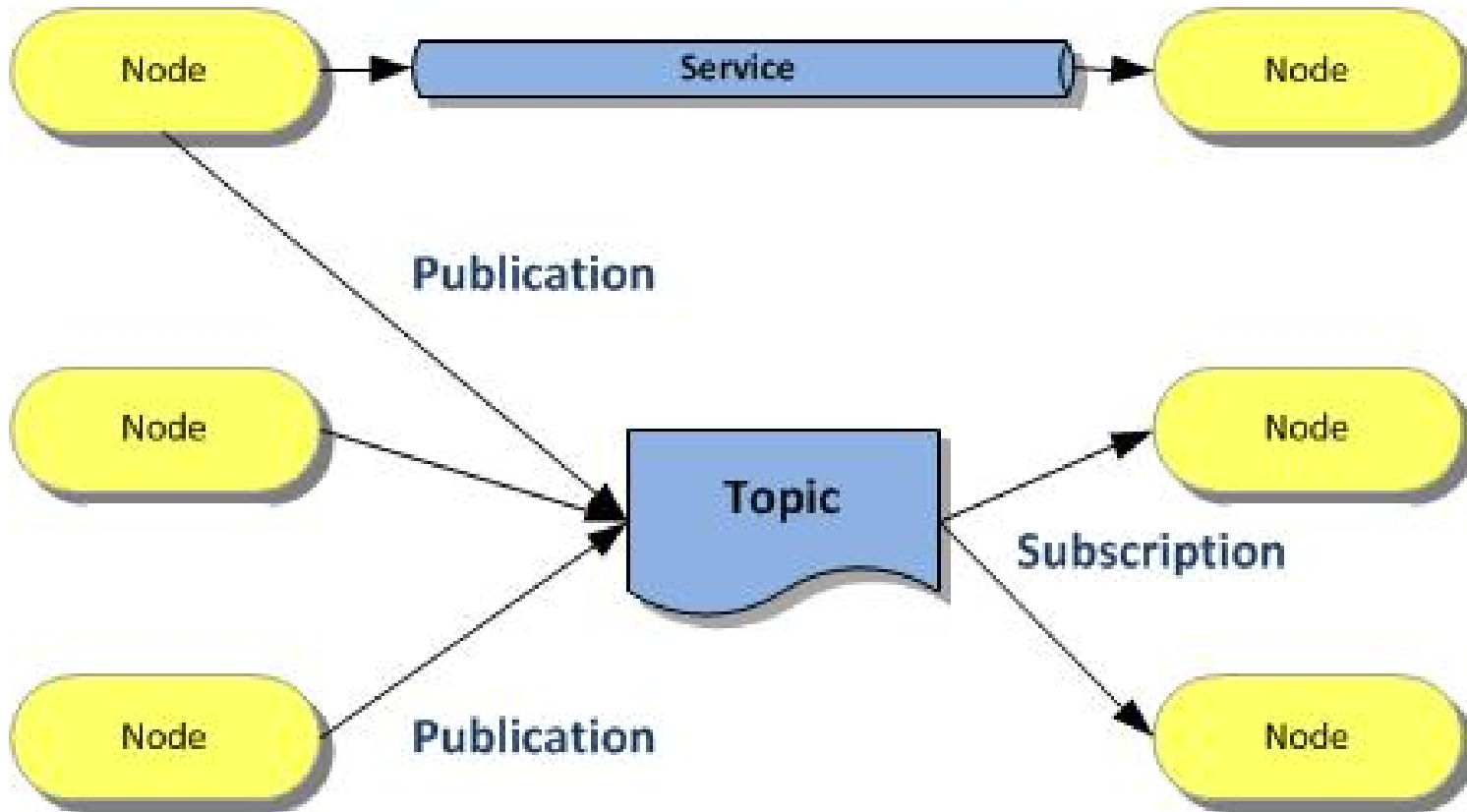- 2013 Open Source Robotics Foundation (OSRF)

What is ROS?

- Distributions
  - ROS 1.0
    - http://wiki.ros.org/Distributions#List_of_Distributions
  - ROS 2.0
  - ROS-I (Industry)
  - Etc.

What is ROS?

- Structure
  - Nodes
  - Messages
  - Topics
  - Services

What is ROS?

What Software?

- OS
  - Ubuntu 16.04 LTS

- Text Editor
  - Vim, Emacs, Atom, Gedit, Clion, Pycharm, etc...

- Github

- ROS
  - Kinetic Kame

What to Expect?

- Focus is on out of class hw

- Students are expected to spend at least 4 hrs a week on course material

- Students are free to use online material for help but are not allowed to ctrl-c ctrl-v.

- Questions?

HW

- Install Ubuntu 16.04 on your computer

- Install ROS-Kinetic

- Setup Github account and push hello world file

- Decide on a text editor

- Finish ROS beginner tutorial #1

HW

- Helpful link
  - Installing Ubuntu
    - https://www.lifewire.com/beginners-guide-to-ubuntu-2205722
  - Navigating Ubuntu terminal
    - File & Directory Commands
      - https://help.ubuntu.com/community/UsingTheTerminal
  - ROS Installation
    - http://wiki.ros.org/kinetic/Installation
  - ROS Tutorial
    - http://wiki.ros.org/ROS/Tutorials