Automation and Testing for Simplified Software Deployment

Automation is key to offload tedious and repetitive task from the developer. We use a combination of

- Docker, CVMFS, GitHub, and Travis to automate the testing of pull requests for C++ and Python projects: **Easy to set up and very low maintenance**
- Use APIs provided by Git(Hub|Lab) to collate release notes and make tags **with the press of a button**

**Setup in yaml file, mounts CVMFS into our own docker container (e.g., clicdp/slc6-build) hosted on dockerhub**

```
wget https://ecsft.cern.ch/dist/cvmfs/cvmfs-release/cvmfs-release-latest_all.deb
sudo dpkg -i cvmfs-release-latest_all.deb
sudo apt-get update
sudo apt-get install cvmfs cvmfs-config default
rm -f cvmfs-release-latest_all.deb
wget https://lcd-data.web.cern.ch/lcd-data/CernVM/default.local
sudo mv default.local /etc/cvmfs/default.local
sudo /etc/init.d/autofs stop
sudo cvmfs_config setup
sudo mkdir -p /cvmfs/clicdp.cern.ch
sudo mount -t cvmfs clicdp.cern.ch /cvmfs/clicdp.cern.ch
ls /cvmfs/clicdp.cern.ch

docker run -it --name CI_container \
  -v $PKGDIR:/Package \
  -e COMPILER=$COMPILER \
  -v /cvmfs/clicdp.cern.ch:/cvmfs/clicdp.cern.ch \
  -d clicdp/slc6-build /bin/bash
```