Cheatography

Team 1418's FRC Cheat Sheet Cheat Sheet

by carter.fendley via cheatography.com/25327/cs/6595/

General Reference

RoboRIO Address:	roborio-1418-frc.local
Default Gateway	10.14.18.1
Robot Router SSID:	1418

Documentation

RobotPy Setup:	robotpy.readthedocs.org
PyFRC / WPILib:	pyfrc.readthedocs.org
PyFRC Extras:	robotpy-wpilib-utilities.readthedocs.org

Veiwing Network Tables

Use

Network Tables are used like a print statement for the robot. We are able to view the values being pushed into network tables from out laptops

Pushing Data to Network Tables

Create new table (Usally in robot init)

```
self.sd = Networ kTa ble.ge tTa ble ('S mar tDa shb oard')
```

Push value (In robot loop)

```
self.s d.p utN umb er( " Value name", value))
```

Viewing Network Tables

1) Install robotpy's eclipse plugins

2) Connect to the robot's router on your laptop

3) Open eclipse and got to `WPILib > Run Outline Viewer`

4) Enter a host of: `robori o-1 418.local`

5) Click Start Client

Python

Statements

```
if expre  ssion:
        sta  te ments
elif expre  ssion:
         st a t ements
else:
         st a t ements
```

Loops

```
while expre  ssion:
    sta t ements
for var in colle  ction:
    sta t ements
for i in range(  st  art, end):
    sta t ements
```

Git

Pull Changes:	`git pull`
Add a File:	`git add <file name>`
Remove File:	`git rm <file name>`
Move FIle:	`git mv <file name> <new file name/p ath >`
Commit:	`git commit -m " <insert comment here>"`
Push:	`git push <re po/ rem ote> <br anc hna m e>`
Check Status:	`git status`

Command Line / Terminal

Change Folder/Directory:	`cd <folder name>`
List Files:	`ls`
Delete File:	`rm <file name>`
Move File:	`mv <file name> <new file name/p ath >`
Create Folder:	`mkdir <folder name>`

By **carter.fendley**
cheatography.com/carter-fendley/

Published 8th January, 2016.
Last updated 11th May, 2016.

Team 1418's FRC Cheat Sheet Cheat Sheet

by carter.fendley via cheatography.com/25327/cs/6595/

Python Robot Simulator

Use

BEFORE deploying code to the robot or pushing code to git make sure to test your code in the pyfrc simulator. This makes sure that your code will not crash the robot and can also be helpful when developing code at home away from the robot.

Running Simulator

1) Navigate `2016-r obo t/r obot/`

2) Run the simulator with `python3 robot.py sim`

Deploy To Roborio

Deploying

1) Change your wifi to the robot's wifi `1418`

2) Navigate to the `2016-r obo t/r obot/` directory in terminal.

3) Use command `python3 robot.py deploy` to start deploying.

4) Use the robot address `robori o-1 418.local` when prompted

Tests

If no tests are in the `2016-r obo t/t ests/` directory then your will have to deploy with `--builtin`

Troubleshooting

Update pyfrc: `pip3 install --upgrade --user pyfrc`

By **carter.fendley**
cheatography.com/carter-fendley/

Published 8th January, 2016.
Last updated 11th May, 2016.