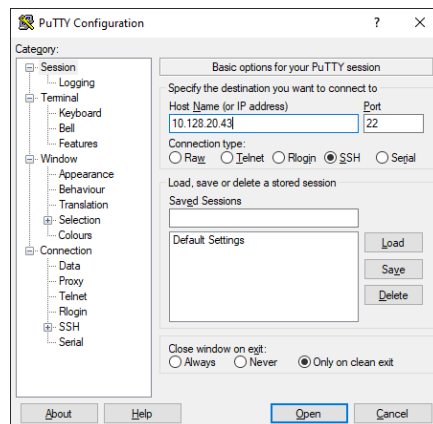


# RELOPEC - Quickstart

## Getting Started

Downloading PuTTY: <https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html>

Choose: `putty-64bit-0.77-installer.msi`



Host Name (or IP address): `"10.128.20.43"`

Username: `"pi"`

Password: `"relopec1234"`

Warning: IP can change!

## Basic Linux Commandos

- "ls" → Display a list of files and sub-directories in the current directory
- "cd" → Change current directory
- "./" → Execute file
- "nano" → Text editor

## How to run?

Commands to enter:

- "cd Relopec"
- "./runRelopec.sh"

```

pi@relopecpi: ~/Relopec
Last login: Fri Oct 21 14:04:23 2022 from 10.106.32.11
-bash: alias: python: not found
-bash: alias: ~/usr/bin/python3.8: not found
pi@relopecpi:~$ cd Relopec
pi@relopecpi:~/Relopec$ ls
BasicParameters.py  getData.py      RELOPEC_200.txt    results
CalcFaultLocation.py  libiec61850    RELOPEC_708.txt    runRelopec.sh
CalcNetwork.py        numbaAOTtest.py RELOPEC_714.txt    simulationData
DataProcess.py         omicron_data    RELOPEC_algorithm.py  Varia.py
FaultSelection.py      __pycache__     result.png
pi@relopecpi:~/Relopec$ ./runRelopec.sh
ccplus: warning: command line option '-Wstrict-prototypes' is valid for C/ObjC
Start RealTimeData Thread
USE IEC61850 DATA
Init data buffers
ID: 310
Start fault detection
Buffer size: 30430
Buffer size: 28809
Buffer size: 27086
Buffer size: 25363
Buffer size: 23640
Buffer size: 21916
Buffer size: 20808
Buffer size: 19084
Buffer size: 17361
Fault detected!
estFaultType: 2
estFaultIncepTime: 12.06075
estFaultStableTime: 12.32075
Stop gathering data
Filter fundamental
Time filter fundamental: 0.23315167427062988
Start calculating fault location
Find zero cross
zerocross: (0.786592528075709-0.06625848181858472j)
Total time: 3.893167734146118
pi@relopecpi:~/Relopec$

```

## How to get data?

Download FileZilla: <https://filezilla-project.org/>



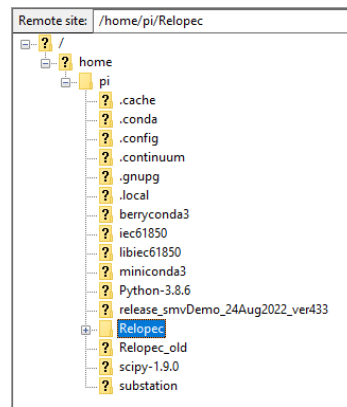
Login using same credentials

Per measurement, a file: `"RELOPEC_$ID$.txt"` will be generated.

File structure:

- ID
- ZeroCross
- Time needed for fault location calculation
- Estimated fault type
- Estimated fault inception time
- Estimated fault stable time

You can now drag and drop files



## OMICRON Setup

MAC address RPI: "e4:5f:01:41:87:d5"