

Free and Open Source Software for Geospatial (FOSS4G) Conference Proceedings

Volume 15 Seoul, South Korea

Article 14

2015

Building a Time Server with RaspberryPI & GPS, Connecting with a Free Web GIS Software

Orkut Murat YILMAZ

Bogazici University, Turkey

Kerem Halicioglu

Bogazici University, Turkey

Osman Bal

Bogazici University, Turkey

Ayca Eraslan

Bogazici University, Turkey

Ahmet Alper YILMAZ

Bogazici University, Turkey

See next page for additional authors

Follow this and additional works at: <https://scholarworks.umass.edu/foss4g>

 Part of the [Geography Commons](#)

Recommended Citation

YILMAZ, Orkut Murat; Halicioglu, Kerem; Bal, Osman; Eraslan, Ayca; YILMAZ, Ahmet Alper; Julaiti, Wumiti; and LiBassi, Nicholas Paul (2015) "Building a Time Server with RaspberryPI & GPS, Connecting with a Free Web GIS Software," *Free and Open Source Software for Geospatial (FOSS4G) Conference Proceedings*: Vol. 15 , Article 14.

DOI: <https://doi.org/10.7275/R52F7KNV>

Available at: <https://scholarworks.umass.edu/foss4g/vol15/iss1/14>

This Paper is brought to you for free and open access by ScholarWorks@UMass Amherst. It has been accepted for inclusion in Free and Open Source Software for Geospatial (FOSS4G) Conference Proceedings by an authorized editor of ScholarWorks@UMass Amherst. For more information, please contact scholarworks@library.umass.edu.

Building a Time Server with RaspberryPI & GPS, Connecting with a Free Web GIS Software

Authors

Orkut Murat YILMAZ, Kerem Halicioglu, Osman Bal, Ayca Eraslan, Ahmet Alper YILMAZ, Wumiti Julaiti, and Nicholas Paul LiBassi

P0-21

Building a Time Server with RaspberryPI & GPS, Connecting with a Free Web GIS Software

Orkut Murat YILMAZ¹, Kerem Halicioglu, Osman Bal, Ayca Eraslan, Ahmet Alper YILMAZ, Wumiti Julaiti, Nicholas Paul LiBassi

Bogazici University, Turkey

Corresponding Author : Orkut Murat YILMAZ (orkutmurat.yilmaz@boun.edu.tr)

Abstract

“Orkut” Murat Yilmaz¹, Kerem Halicioglu¹, Osman Bal¹, Ayca Eraslan¹, Ahmet Alper Yilmaz¹, Wumiti Julaiti¹, Nicholas Paul LiBassi¹

¹ Bogazici University Kandilli Observatory and Earthquake Research Institute, Geodesy Department, Istanbul, Turkey

20 years ago, Kandilli Observatory and Earthquake Research Institute Geodesy Department Building was official time measurement and synchronization laboratory for institutions of Istanbul. Geodesy Department's calculations and mechanical clocks were the way of synchronization.

In this study, we have organized a revival project for Time Synchronization and used a Raspberry PI & GPS Module to capture The GPS Signal and parsed the Signal for building NTP Server.

After building NTP Server, we are going to make a GPS handset by adding touchscreens to our Raspberry Pis and we're going to use this handset for locating the trees at the Kandilli Observatory and Earthquake Research Institute Campus. At the end, collected the data will be used at the free and open source web gis software for our project.

Academic Discipline and Sub-Disciplines : Geodesy, GPS, FOSS4G

Keywords : Raspberry PI, Open Hardware, FOSS4G, Web GIS, Free Software, NTP, Time