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Category	Python	Subcategory	Location Based Services

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Overview

This code snippet explains how to use the `positioning` module to get information from an internal or external [GPS](#) module in [Python](#).

Prerequisites

It is recommended to get a GPS lock at least once before using this code to maximize efficiency.

Code

```
import e32, appuifw, positioning

def gps_init():
    #This function will start the updating of global variable (dictionary) 'gps_data' every 0.2 sec.
    #0.2 sec comes form 'interval = 200000' set according to your needs
    #This function uses callback funtion gps
    global gps_data
    #First this fills the gps_data with 0.0 so that there is something before the first gps update
    gps_data =
    'satellites': {'horizontal_dop': 0.0, 'used_satellites': 0, 'vertical_dop': 0.0, 'time': 0.0,'sat
    'position': {'latitude': 0.0, 'altitude': 0.0, 'vertical_accuracy': 0.0, 'longitude': 0.0, 'horiz
    'course': {'speed': 0.0, 'heading': 0.0, 'heading_accuracy': 0.0, 'speed_accuracy': 0.0}
    }
    try:
        select_module(positioning.default_module())
        set_requesting[{"type": "service", "format": "application", "data": "gps_app"}])
        positioning=1, satellites=1, callback=gps, interval=200000, partial=0)
        ao_sleep(3) e32.
    except:
        note(u'Problem with GPS', 'error')

def gps(event):
    global gps_data
```

How_to_read_GPS_data_in_Python_for_S60

```
gps_data = event

def gps_stop():
#This function stops GPS
try:
    stop_positioning()
except:
    note(u'Application with GPS', 'error')

#Testing
gps_init()
count = 0
while True:
    count = count +
    sat = gps_data['used_satellites']
    pos_lat = gps_data['latitude']
    pos_long = gps_data['longitude']
    speed = gps_data['speed']
print count, sat, pos_lat, pos_long, speed
    ao_sleep(1)
```