LOCATION STUDIO™

LOCATION STUDIO QT AUTOMOTIVE SUITE
RUNTIME ENVIRONMENT SETUP

June 2017

Revision Sheet

Release No.	Date	Revision Description
Rev. 0	6/13/17	Initial Draft

TABLE OF CONTENTS

GENERAL INFORMATION

Purpose

The purpose of this document is to provide the detailed information about the hardware and software environment settings and configurations needed to successfully load and run the Location Studio Automotive Reference application on the Linux platform for x86 -64 hardware environment.

Linux Hardware and Software Requirements

Name	Vendor, Model and Serial #
Device	VMware player(>=6.0) or x86-64 motherboard
Operating System	Ubuntu 16.04.01 LTS, x86, 64bit
QT Version	5.8.0
Dependency Libraries	libgbm1, libegl1-mesa, libegl1-mesa-drivers, libgles2-mesa, libgles2-mesa-dev, libgl1-mesa-dri, libasound2-dev, alsa-oss, libphonon-dev, libwayland-client0, libwayland-server0, libsqlite3-dev, libfreetype6-dev, libgstreamer1.0-dev, libwayland-dev, libwayland-egl1-mesa*, libgstreamer1.0-0, libssl-dev, libarchive-dev, libyaml-dev, libfontconfig1-dev, libdbus-1-dev, libdbus-1-3, libdbus-glib-1-dev

Setting Up Environment for Ubuntu x86-64

Install Ubuntu-16.04.1 LTS

Please follow the link below to download the image of ubuntu 16.04.1 LTS x86 64bit

PATH: http://releases.ubuntu.com/12.04/ubuntu-12.04.4-desktop-i386.iso

This image can be either installed on Virtual Machine or actual x86-64 hardware platform.

Download the project

Download the project from git.location.studio by either cloning it or downloading a zip file and uncompressing it.You may need to create an account on git.location.studio if you don't already have one.

Run the install script

```
$ sh install_automotive.sh all
```

Will install all dependency libraries, Qt5.8.0 with Automotive Suite, LocationStudio Qt Plugins and resources.


```
$ sh install_automotive.sh
```

Will install Qt5.8.0 with Automotive Suite, LocationStudio Qt Plugins and resources without the dependencies.

Release Package Contents

/bin

Contains qtnavigator console and cluster Qt plugins (shared objects).

/docs

Contains the Getting Started and API guides.

/library

Location Studio GeoSuite libraries and include files for Qt-Linux Platform.

/samples

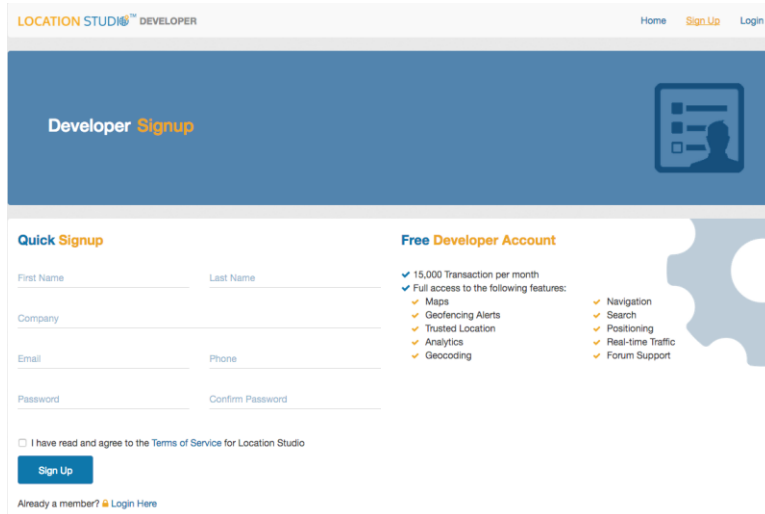Source code of sample app and Qt Plugins.

install_automotive.sh

Script to install

- Automotivedemo with Qt5.8.0
- Dependency Libraries
- Plugins (QtNavigator Console & Cluster)
- Resources (QtNavigator Console & Cluster)

Create Your Location Studio Developer Account and API Key

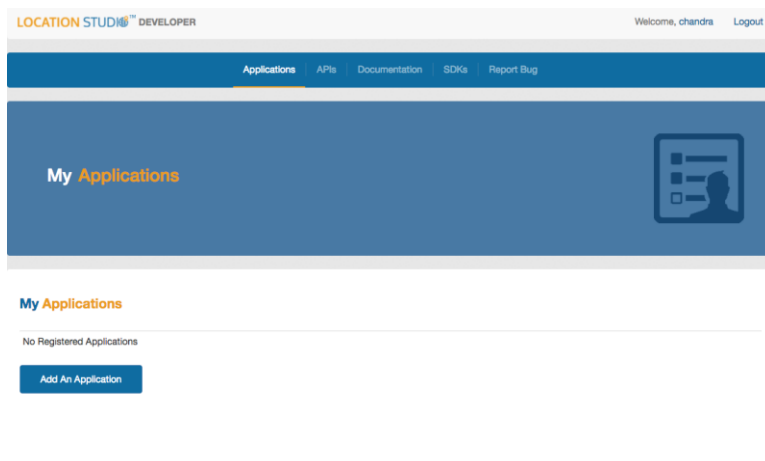## Create Your Developer Account

Create a developer account at https://developer.location.studio/#/register

After creating the account you will get an email to verify your email address. Please Verify your email to complete account creation.
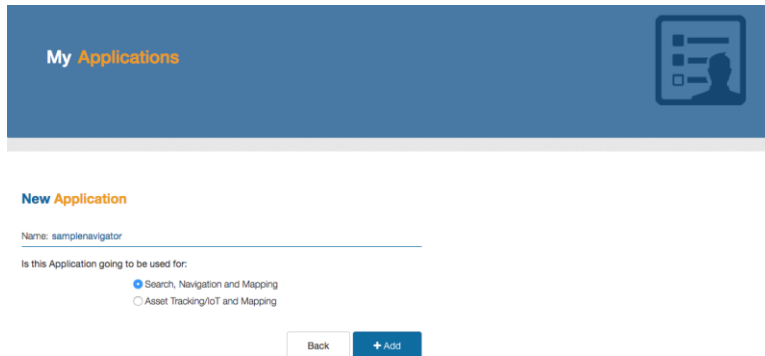
Add an Application

Go to https://developer.location.studio/#/applications and click 'Add an Application'.

Create the API Key

Specify the name of the application, select the "Search, Navigator and Mapping" and click 'Add'
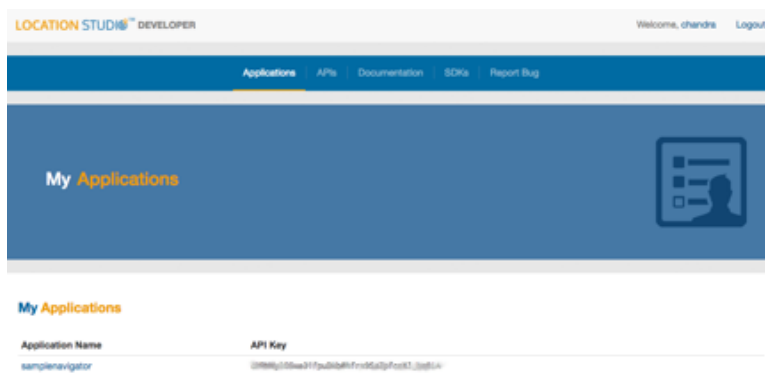
The screen will refresh and you will now see your API key and Application name displayed.

Enter your API key into the QML Configuration Files

The default UI for the application is based upon the Qt auto SDK. This application is found under the directory tree `/opt/automotivedemo`. Also available is a version of the app that conforms to the Neptune UI used by the Genivi demo platform. This version of the app may be found under the tree `/opt/neptuneui`.

Adding API Key to the Qt Auto Application

You need to enter your new API key into two files in order for the reference application to be able to access the Location Studio map tiles and Search database. The files are located at the following paths:

```
/opt/automotivedemo/CenterConsole/apps/com.locationstudio.qtnavig
ator/app1.qml
/opt/automotivedemo/Cluster/qml/CenterView.qml
```

The contents of the ClusterView.qml are:

```
ClusterView {
      id: map2
      workFolder: "/opt/locationstudio/res/cluster"
      zoom: 17.0
      tilt: 15.0
      isFollowMe: true // is follow me mode
      token:"<YOUR_APIKEY_HERE>"
}
```

The contents app1.qml are:

```
ConsoleView {
      width: 1024
      height: 768
      workFolder: "/opt/locationstudio/res/console"
      zoom: 17
      tilt: 45
      isFollowMe: true
      token: "<YOUR_APIKEY_HERE>"
}
```

Run the Demo

```
$ cd /opt/automotivedemo

$ sh start.sh
```

Adding API key to the Neptune (Genivi) Demo Application:

For the Neptune UI, add your API key to the files at the following location:

```
/opt/neptuneui/sysui/Cluster/Cluster.qml
/opt/neptuneui/sysui/Home/HomePage.qml
```

For Neptune, Cluster.qml is a much longer file. The relevant portion of Cluster.qml that needs to be modified with your API Key is:

```
ConsoleView {
      property int speedLimit: RouteInfo.speedLimit
      anchors.top: parent.top
      anchors.left: root.leftMap ? parent.left :
      parent.horizontalCenter
      width: root.width/1.8
      //vspan: 20
      height: root.height
      isFollowMe: true
      client: "Neptune"
      workFolder: "/opt/locationstudio/res/console"
```

```
            token: "<YOUR_APIKEY_HERE>"
        }
```

HomePage.qml is a much longer file as well. The relevant portion to modify is:

```
ClusterView {
    anchors.fill: parent
    width: Style.clusterWidth - 50
    //color: "#0c0c0c"
    workFolder: "/opt/locationstudio/res/cluster"
    token: "<YOUR_APIKEY_HERE>"
    anchors.topMargin: 200
    anchors.leftMargin: 500
    anchors.rightMargin: 500
    anchors.bottomMargin: 80
    zoom: 17.0
    tilt: 15.0
    avatarPosition.x: -118.25 // avatar latitude
    avatarPosition.y: 34.05 // avatar longitude
    vatarHeading: 0.0 // avatar heading
    isFollowMe: true // is follow me mode
    client: "Neptune"
}
```

Run the Demo

```
$ cd /opt/neptuneui
$ sh start.sh
```

Adding API key to the Wayland Compositor Demo Application:

For the Wayland Compositor, add your API key to the files at the following location:

```
samples/waylandCompositorSample/demo/clusterView/resource/main.qml
```

For Wayland Compositor, relevant portion of main.qml that needs to be modified with your API Key is:

```
MapViewPlugin {

    signal screenSizeChanged(double width,double height)
    id: map2
    workFolder: "/opt/locationstudio/res/cluster"
    width: root.width
    height: root.height
    zoom: 17.0
    tilt: 15.0
    token: "<YOUR_APIKEY_HERE>"

}
```

Build & Run the Wayland Compositor Demo

```
$ cd samples/waylandCompositorSample/demo/build
$ sh build.sh
$ cd ../startScript

$ sh start.sh
```

If you have any problems, please email our support line at support@location.studio