Installation Guide
PS Toolbox

Table of contents

NHAZCA S.R.L.
Via V. Bachelet 12 - 00185 Roma, Italia
Tel.: (+39) 06 950 65820 | info@nhazca.com
WWW.NHAZCA.COM

1. INTRODUCTION

The PS Toolbox is a suite of plugins for the interpretation and post-processing **A-DInSAR** data in GIS environment.

1.1. Requirements

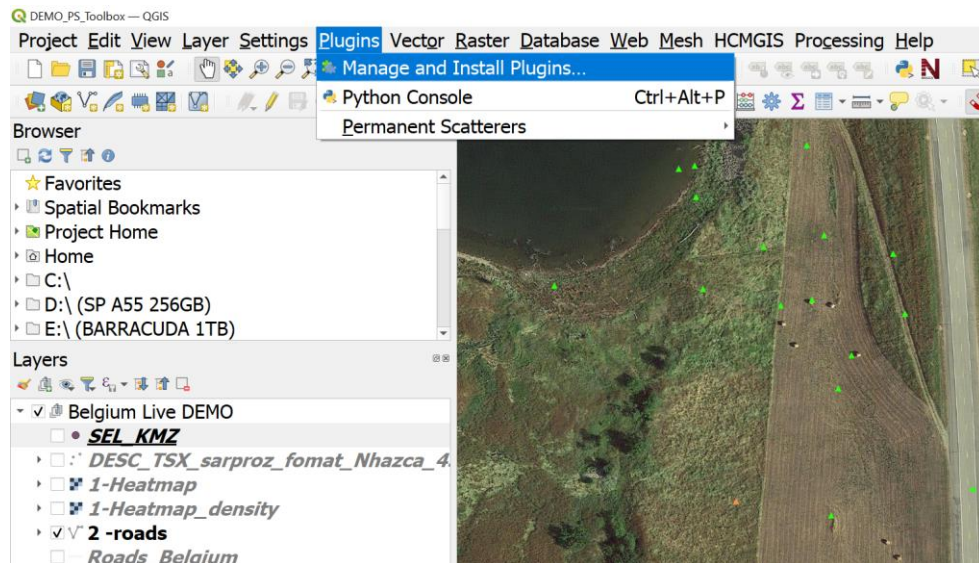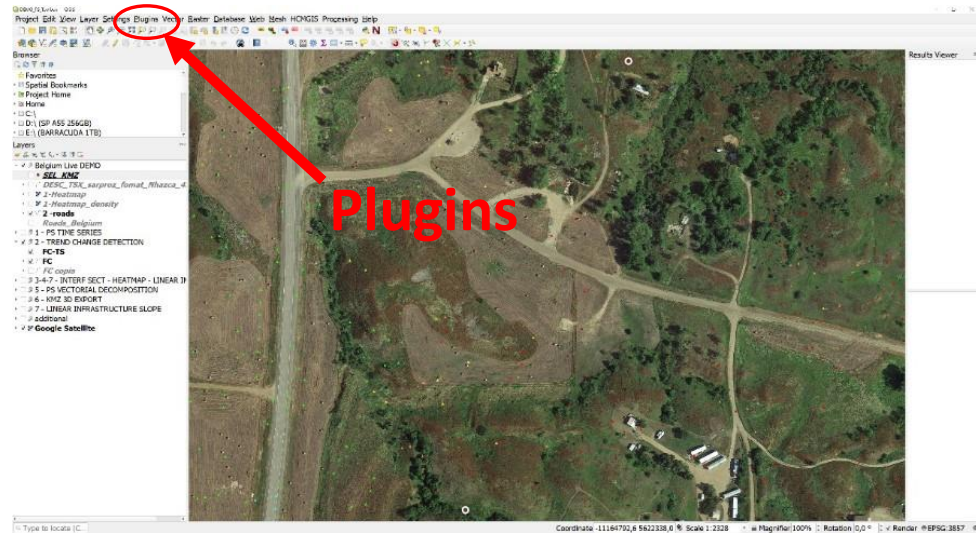|	CPU	RAM SIZE	QGIS VERSION	OS
Minimum requirements	2 GHz 2 cores	4 GB	3.16.6	Windows 10
Recommended requirements	3 GHz more than 2 cores	8 GB	3.22.x	Windows 10

PS Toolbox is composed by ten plugins:

1. **Format Dataset** makes datasets compatible with other PS Toolbox tools (cf.§ **Errore. L'origine riferimento non è stata trovata.**),

2. **Plot Time Series** allows to view and interact with the time series of the datasets and optionally export them with the possibility of customizing many display parameters (cf.§ **Errore. L'origine riferimento non è stata trovata.**),

3. **KMZ Export** exports datasets in .kmz format, making it possible to view three-dimensional images on Google Earth Pro (cf.§ **Errore. L'origine riferimento non è stata trovata.**),

4. **Filtering** applies smoothing to the time series of the datasets (cf.§ **Errore. L'origine riferimento non è stata trovata.**),

5. **Vectorial Decomposition** allows to break down the speed of the PS into two distinct components, in the east-west component and in the up-down component (cf.§ **Errore. L'origine riferimento non è stata trovata.**),

6. **Interferometric sections** create interferometric sections based on the speed or displacement given by the PS of the datasets (cf.§ **Errore. L'origine riferimento non è stata trovata.**),

7. **Trend Change Detection** identifies the trend variations within the time series (cf.§ **Errore. L'origine riferimento non è stata trovata.**),

8. **Linear Infrastructures** characterizes road sections in SHP format as a function of the velocity of the nearby PS (cf.§ **Errore. L'origine riferimento non è stata trovata.**),

9. **Spatialization** *Not yet available* (cf.§ **Errore. L'origine riferimento non è stata trovata.**),

10. **Data Fusion** allows the generation of heatmaps starting from multi-source data with different orbital geometries and sensors (cf.§ **Errore. L'origine riferimento non è stata trovata.**).
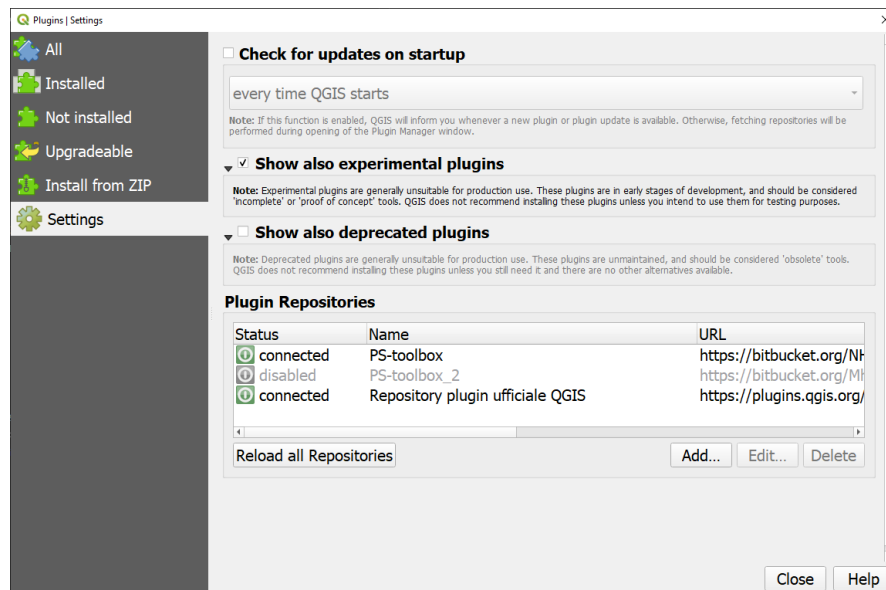
The first three plugins are available with the trial licence, but the installation of the software is needed.
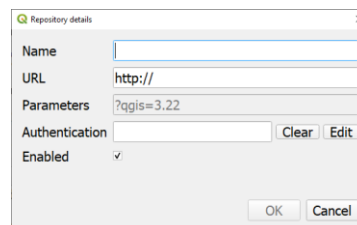
2. Installation

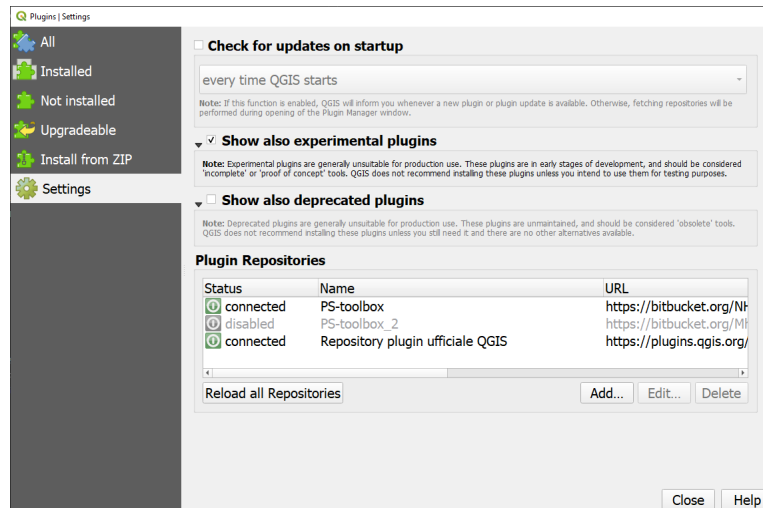1. Open QGIS and click on "**Plugins**" then, go to "**manage and install plugin**".

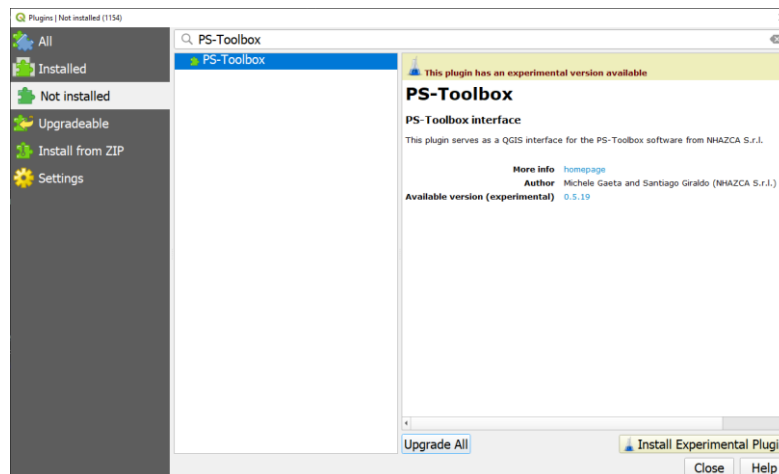
2. Click on "**Settings**" and then click on "**Add…**".

3. In the new window choose and digit a name and paste and copy the repository URL then, flag "**Enabled**" and click "**OK**". The repository link is *https://bitbucket.org/NHAZCA_1/ps_toolbox_plugin/raw/Release/plugins.xml*
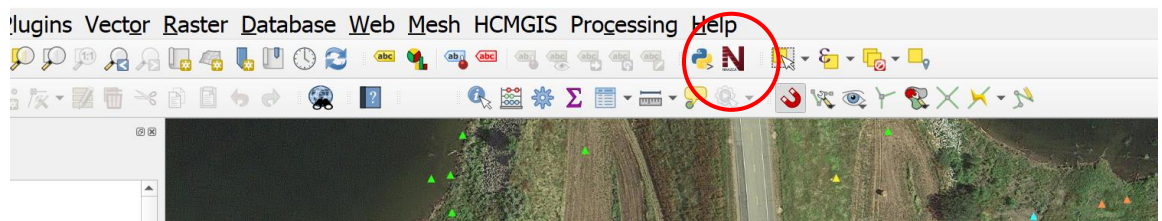

4. Click on "**Refresh all the repository**" and flag "**also show the experimental plugins**".
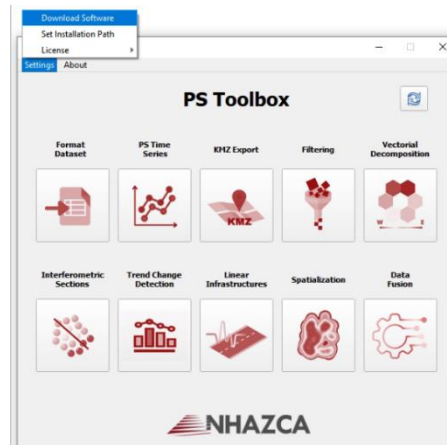
5. Now you can find the PS-toolbox plugins on the "**Not installed**" plugins list so, click on "**Install Experimental Plugin**".
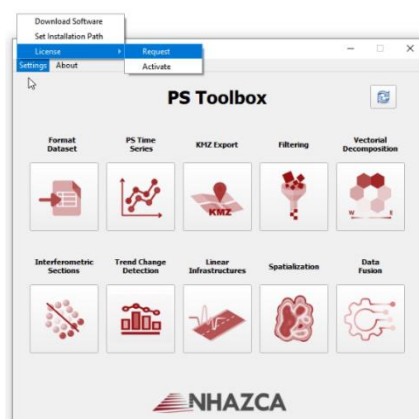

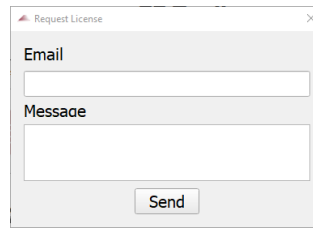6. Click on the PS Toolbox icon by main windows of QGIS .

7. Click on settings and select "**Download Software**", then choose the folder where to install the PS Toolbox
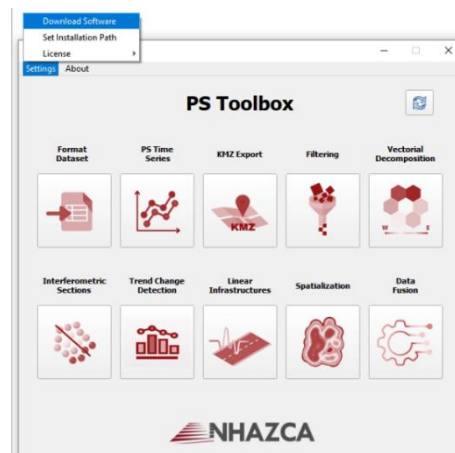

8. Once the download is completed click again on "**Settings**" then on "**License**" and at last on "**Request**".

9. In this new screen enter the email address and optionally also write a short message related to the activation request of the PS Toolbox then, click on "**Send**".
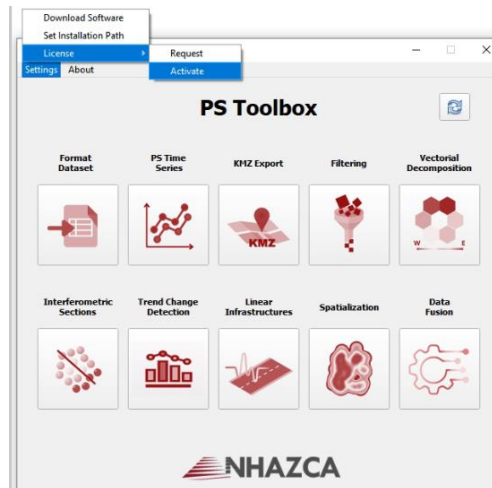
10. Click again on settings and select "**Download Software**", then choose the folder where to install the PS Toolbox
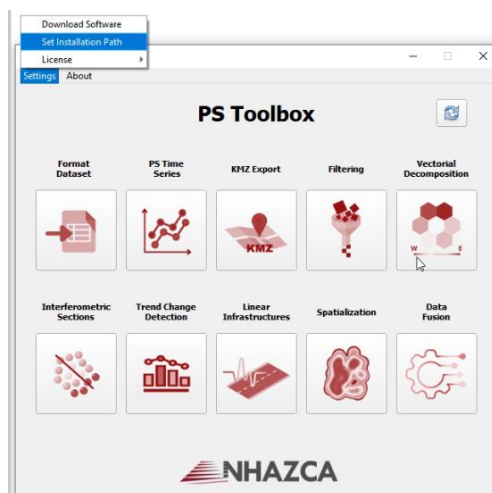

11. When the admin accepts your request, the license will be sent to the e-mail address previously entered. Therefore, once the license has been obtained, it must be downloaded and placed in a folder inside the computer storage.

12. Click on "**Settings**" then on "**License**" and at last on "**Activate**" and select the license file downloaded previously.

13. Now, another time click on "**Settings**" and select "**Set Installation Path**", then select the **PS_toolbox.exe** file, you will find it in the path chosen for installing the PS Toolbox.

You are now enabled to use all plugins within the PS Toolbox.