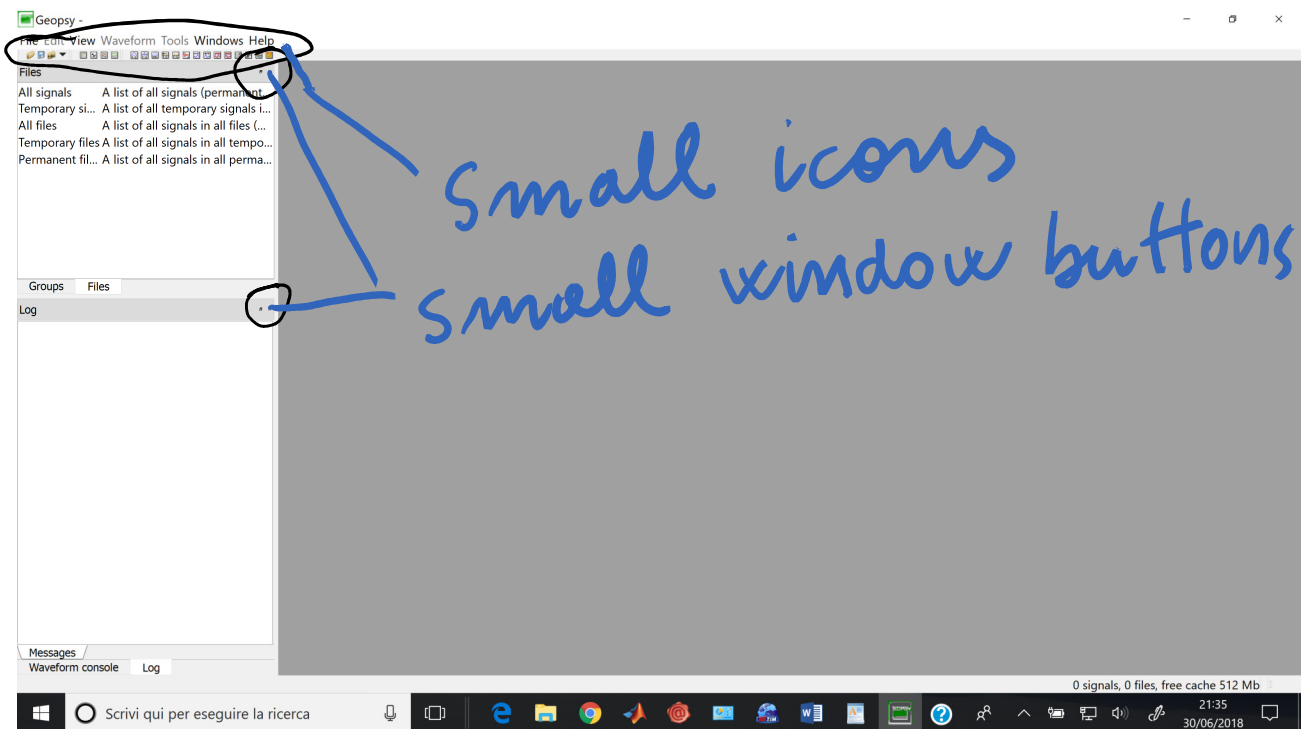


GEOPSY App Scaling on High DPI Displays for Windows systems (problem FIX)

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The problem:

When the GEOPSY apps are running in Windows Operating System with High DPI display resolution 2K or 4k, the processing menu buttons, icons, text and windows are minimized and/or misplaced. Below the GEOPSY display **before the problem FIX** (see the too small icons of the processing tools, and window buttons)



The solution:

The proposed solution is suitable for any application running in Windows system which exhibits the scaling problem when our PC has a high DPI display.

We must tell to Windows that it is not DPI aware and let it scale everything properly. This objective is obtained using a **.exe.manifest** file. The **.manifest** file is an XML file that contains detailed information about the application and the activities in the application: in our case we ask to Windows to let the scale as defined by GEOPSY applications.

(for example see the problem FIX for other programs <https://www.danantielli.com/adobe-app-scaling-on-high-dpi-displays-fix/>)

I fix the problem on my ultrabook **HP elitebook 360 touchscreen** with a high DPI resolution of 3800x2160 working with Windows 10 PRO.

Procedure:

After the installation of GEOPSY suite with a proper version for your PC (I used **geopsypack-46items-win32-2.10.1.exe** downloaded from GEOPSY.org site)

Step1: Tell Windows to prefer an external appname.exe.manifest file.

Step2: Create the external appname.exe.manifest files.

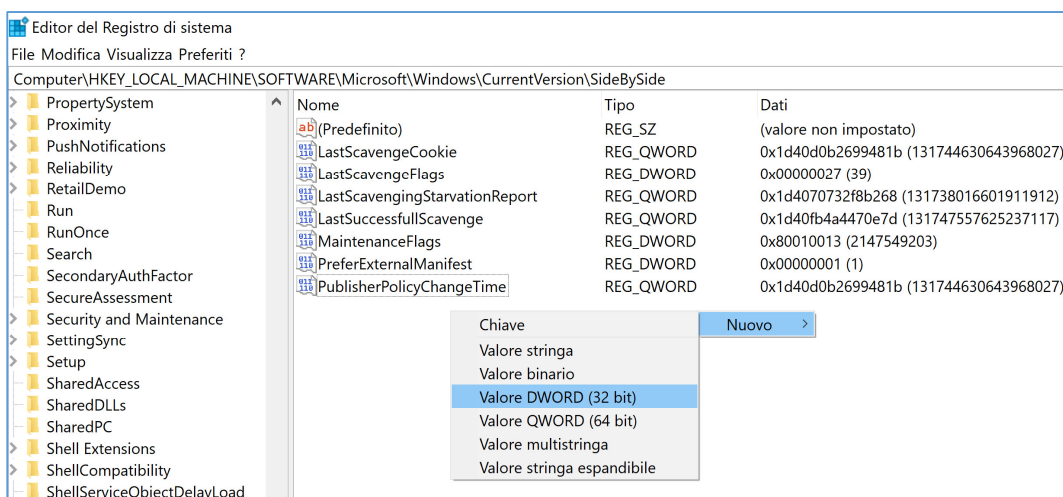
Step3: Copy appname.exe.manifest in the GEOPSY bin folder.

Step 1: Tell Windows to prefer external manifest files for GEOPSY and other apps

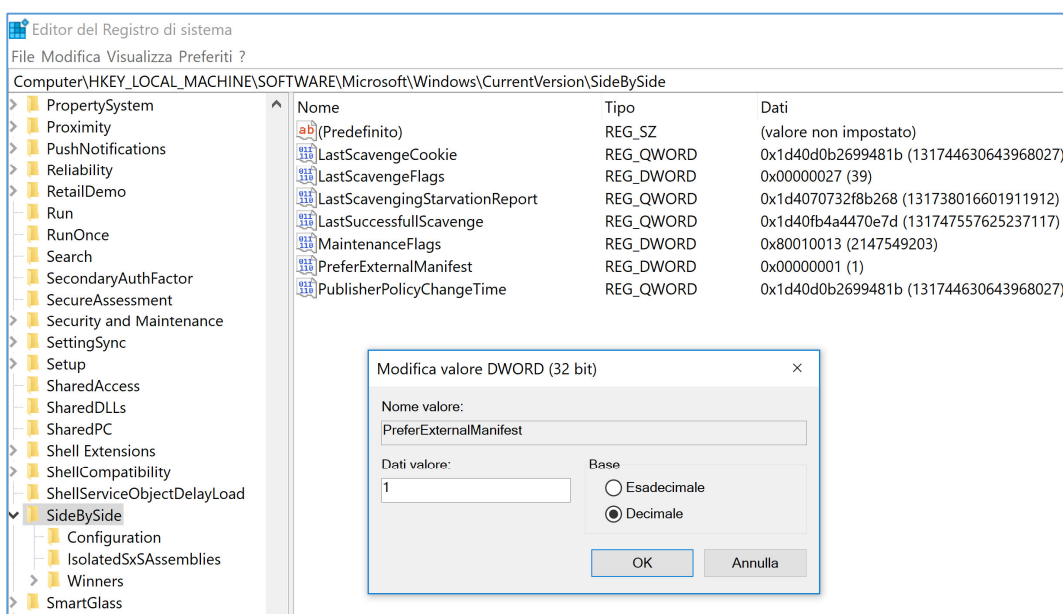
This action is performed using **regedit** (Registry Editor) of Windows system.

Make sure you backup your registry and tread lightly in this area. We are just going to add one line. Then:

1. Press **Windows Button + R**, type **“regedit”**, and then click **OK**.
2. Navigate to the following registry subkey:
HKEY_LOCAL_MACHINE > SOFTWARE > Microsoft > Windows > CurrentVersion > SideBySide
3. **Right-click**, select **NEW > DWORD (32 bit) Value** (see figure below)



4. Type **PreferExternalManifest**, and then press **ENTER**.
5. **Right-click** **PreferExternalManifest**, and then click **Modify**.
6. Enter Value Data **1** and select **Decimal** (see figure below).
7. Click **OK**. Exit Registry Editor.
8. Reboot your computer



Step 2: Create the manifest files in GEOPSY BIN FOLDER

I created the **.manifest** file with a text editor and I saved it with name **appname.exe.manifest**: for example **geopsy.exe.manifest** (pay attention that the file has the extension **.manifest** and not **.text**). In the manifest files, the reported below XML commands were inserted (the bold XML command tell to Windows to aware DPI scaling)

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<assembly xmlns="urn:schemas-microsoft-com:asm.v1" manifestVersion="1.0">
<application xmlns="urn:schemas-microsoft-com:asm.v3">
<windowsSettings>
<b>dpiAware
xmlns="http://schemas.microsoft.com/SMI/2005/WindowsSettings">False</dpiA
ware>
</windowsSettings>
</application>
</assembly>
```

I created, inserting the same XML commands reported above, the **appname.exe.manifest** files for all the following apps of the GEOPSY suite:

dinver.exe.manifest
figue.exe.manifest
geopsy.exe.manifest
gpfk simulator.exe.manifest
gphistogram.exe.manifest
gplivemodel.exe.manifest
gpviewdcreport.exe.manifest
max2curve.exe.manifest
spac2disp.exe.manifest
waran.exe.manifest
warangps.exe.manifest

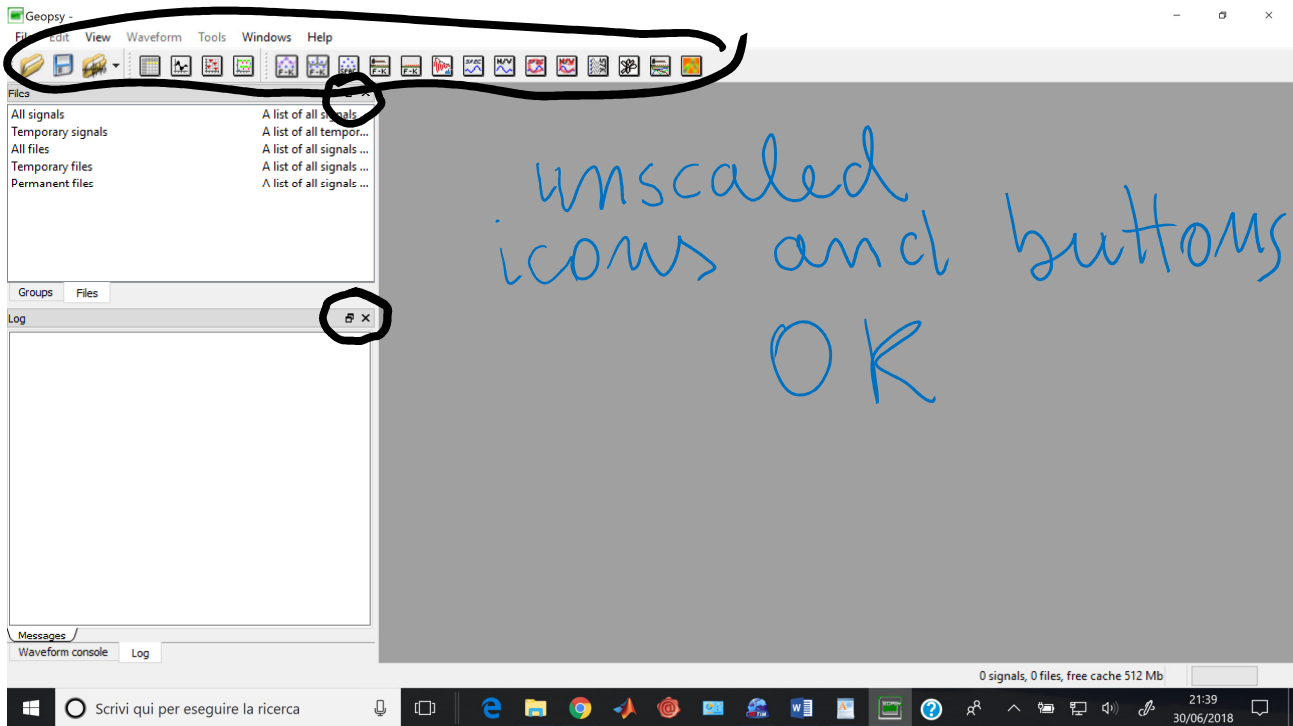
Step 3: Copy appname.exe.manifest files in GEOPSY BIN FOLDER

All the created **appname.exe.manifest** files are just copied in the **GEOPSY bin** folder (generally c:\Program File\geopsy\bin).

Since the **appname.exe.manifest** files have been already created the problem FIX is reduced to the steps:

- regedit of **PreferExternalManifest** (step 1).
- copy of files in GEOPSY bin folder (step 3).

Below the GEOPSY display after problem FIX



NOTE: The presented solution should be an effective solution for the old GEOPSY app old versions. The definitive solution should be resolved by new developed GEOPSY apps versions using newest Qt5 libraries that will better fit with most recent high resolution display environments.