QGIS Application - Bug report #5879
running from build directory - no python plugins

2012-06-27 05:51 AM - Etienne Tourigny

Status:	Closed		
Priority:	Normal		
Assignee:	Sandro Santilli		
Category:	Python plugins		
Affected QGIS version:	master	**Regression?:**	No
Operating System:		**Easy fix?:**	No
Pull Request or Patch supplied:	Yes	**Resolution:**	
Crashes QGIS or corrupts data:	No	**Copied to github as #:**	15338

Description

When developing qgis, much time can be saved by running from the build directory, bu the core plugins are missing because they are not present in the build dir.

Perhaps a new "make install-dev" Makefile command could copy the plugins and also other missing things?

Also related, "imports should be moved into classFactory() so that nothing
happens unless the plugin is explicitly started".

More details: http://lists.osgeo.org/pipermail/qgis-developer/2012-June/020744.html

Quoting Martin Dobias

> - when QGIS is run from build directory, it doesn't copy the internal
> python plugins to the build output directory - that's why sextante is
> complaining about missing plugin installer. We should probably fix
> that in order to provide an environment that is as similar to the
> installed one as possible
>
> - the imports should be moved into classFactory() so that nothing
> happens unless the plugin is explicitly started. (this problem will go
> away once we stop using metadata from __init__.py and only use them
> from metadata.txt)

Related issues:

Related to QGIS Application - Bug report # 6913: Python interpreter starts ha...	**Closed**	**2012-12-22**

History

#1 - 2012-10-08 06:53 AM - Sandro Santilli

+1, this is very important for core plugin development

#2 - 2012-10-10 01:31 PM - Sandro Santilli

- Pull Request or Patch supplied changed from No to Yes

So I've done some work to install the db_manager plugin to output/python/plugin/* and to have qgis load it.
The result is two pull requests:
https://github.com/qgis/Quantum-GIS/pull/285

https://github.com/qgis/Quantum-GIS/pull/286

#3 - 2012-10-10 02:28 PM - Sandro Santilli

Alright, I confirm things work with those two pulls above. I can get db_manager loaded from output dir.
Next stop will be installing all plugins under output/

⍰
Ideally we'd have a macro for this on the CMake side, as the db_manager install has been very tedious....

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Anyway please pull those two branches so I can get back to db_manager hacking when I find the time :)

#4 - 2012-10-10 11:12 PM - Sandro Santilli

I was thinking about two other possible ways to fix this:

1. Have the build dir listed in sys.path and plugin_paths, and make sure all sources are also copied to build dir
2. Have both the build dir and the source dir listed in sys.path and plugins_path

⍰
The second option would make the support automatically available to *all* plugins with no need to maintain anything at the plugin-level.

#5 - 2012-10-19 02:25 PM - Sandro Santilli

- % Done changed from 0 to 30

As of 6461a0125b2f83649d1604cbc11fcb6678490ed5 qgis running from build tree would find any python plugin under output/python/plugins. So next thing to do is find an easy way to get plugins under there...

#6 - 2012-10-19 04:18 PM - Sandro Santilli

- % Done changed from 30 to 70

8ca2236134a8d441803c9bdfdfb5dfcbc5536524 provides a PLUGIN_INSTALL macro and makes db_manager use that.
All plugins that are to be loaded from build dir should switch to use that macro now, in order for this to be closed

#7 - 2012-10-20 01:01 PM - Sandro Santilli

plugin_installer plugin ready to run from build dir as of f93f844867e0bbecb461ef571f9dc7a6dfdaf3e6

#8 - 2012-10-23 01:36 PM - Sandro Santilli

- % Done changed from 70 to 80

fTools ready with b892a021af26b39285bebe9199c9534deade135d
mapserver_export ready with 9a0c4ffdb56765893764ca294088cb0967ca03d4

⍰
Still left: osm, sextante and sextanteexampleprovider

#9 - 2012-10-23 01:44 PM - Sandro Santilli

9f1351b08b957f76a570d80c2338ec691550d1a2 does osm, so only left is sextante

#10 - 2012-10-25 01:24 AM - Larry Shaffer
- Status changed from Open to Feedback

A current issue regarding the loading of plugins (while running from the build directory) is when plugins are restored on launch of the app. There is currently a goofy fix for this with commits commit:e31fb3c9 and commit: where QgsApplication::pkgDataPath() is temporarily set to something other than QgsApplication::buildSourcePath() when restoring core plugins.

⍰
The reason for that patch: when QgsPluginRegistry::restoreSessionPlugins() is called the Python packages are imported from **QgsApplication::buildSourcePath()/python/plugins** even though that path is **NOT** in sys.path for the interpreter. If QgsApplication::pkgDataPath() is pointed to something other than QgsApplication::buildSourcePath(), or an empty QString, it works. However, **I could find no means by which the interpreter was assigned that module search path**.

⍰
I have tried:

⍰

⍰ - changing the current working directory in C++ and via Python

⍰⍰ - setting PYTHONPATH

⍰⍰ - setting all kinds of debug output from the interpreter (never shows buildSourcePath()/python/plugins in sys.path)

⍰⍰ - giving up

⍰

To reproduce the issue, run QGIS from the build directory and then launch DB Manager core plugin. You will get an error about a missing ui_*.py file, because that 'compiled' version of a *.ui file does not exist in source directory, only in the build/output/python/plugins staged version of the plugin.

Now, run QGIS again, but with the --noplugins option. This will keep restoreSessionPlugins() from being called. After using Plugin Manager to turn back on DB Manager, launch the plugin and you should not get the error: sys.path is being honored, and the plugin is imported from build/output/python/plugins staged area, as expected.

While the current patch works, it requires core plugins to not request QgsApplication::pkgDataPath() when the plugin loads. A better solution is needed.

#11 - 2012-10-25 02:57 AM - Sandro Santilli

- Assignee set to Sandro Santilli
- % Done changed from 80 to 100

Sextante loads as of commit:6ca7ea987d86251ee051b7d7ee974a1e9d78bd8f
I think this ticket could be closed, and Larry's findings about plugins restore should be in a separate ticket.

#12 - 2012-11-12 01:17 PM - Sandro Santilli

Larry, did you file a ticket for the plugin restore issue ?

#13 - 2012-12-22 03:34 PM - Larry Shaffer

Sandro Santilli wrote:

> *Larry, did you file a ticket for the plugin restore issue ?*

Finally. :^)

See issue #6913

#14 - 2014-06-28 07:42 AM - Jürgen Fischer

- Target version changed from Version 2.0.0 to Future Release - Lower Priority

#15 - 2014-06-28 03:12 PM - Sandro Santilli

- Status changed from Feedback to Closed

Given confirmation of Larry this ticket can be closed. Python plugins are loaded fine from build dir.