QGIS Application - Bug report #7927
composer fails to export with high dpi, without any message

2013-05-28 08:05 AM - Regis Haubourg

Status:	Closed		
Priority:	Severe/Regression		
Assignee:	Marco Hugentobler		
Category:			
Affected QGIS version:	master	**Regression?:**	No
Operating System:		**Easy fix?:**	No
Pull Request or Patch supplied:	No	**Resolution:**	
Crashes QGIS or corrupts data:	No	**Copied to github as #:**	16798

Description

Hi, QGIS doesn't export any image beyond a given dpi resolution.

For A0 maps with lots of raster and transparency, I can't export better than 50 dpi.
I had to downsize to A1 (and change all labeling also) to export up to 220 dpi correctly.
From 220 dpi to 300 dpi, I encounter issues with blending mode layers (see #7926).
From 400 dpi and above, nothing happens after having choosed destination file name. Gui is responsive, no file is written

Associated revisions

Revision bed65cb1 - 2013-06-22 12:50 AM - Hien TRAN-QUANG

Fix #7927 : Add a warning message if trying to print a composition
as an image fails (Qt's QImage sanity check for memory overflow)
Moved previous commit from core/qgscomposition to apps/qgscomposer
as QGIS server uses qgscomposition.

Revision aa0a17b2 - 2013-06-22 09:22 AM - Marco Hugentobler

Merge pull request #670 from tqhien/master

Fix #7927 : Add a warning message if trying to print a composition

History

#1 - 2013-06-13 03:14 PM - Hien TRAN-QUANG

Hello.

I can't reproduce your bug. Exports as images (jpg) are fine for me on my test case. (QGis MASTER a3ea7ce/ Ubuntu 12.04LTS 64bits, size of A0 up to 500 dpi, but really slow over 300dpi).

Can you please tell us what platform/OS you are on and whether you are on 32 or 64bits system. It seems that Qt's qImage does a memory check to avoid memory overflow, which depends on the platform you're on (cf src/gui/image/qimage.cpp of the Qt SDK) and in every case is limited to malloc calls.

So I think this bug is QT-related and not QGIS. Maybe a simple check just like QT's and a messagebox would be enough.

#2 - 2013-06-14 07:58 AM - Regis Haubourg

Hi,
I'm running OSGEO4W master under windows 7 enterprise 64 bits service pack 1. I remember having the same problem in old master branch with XP machine. I have 16 Go RAM. I hope it's not a QT bug...
régis

#3 - 2013-06-22 12:22 AM - Marco Hugentobler
- Status changed from Open to Closed

Fixed in changeset commit:"aa0a17b253f73ddaa913a09637a00175e3464a74".

#4 - 2013-06-25 02:05 AM - Regis Haubourg
- Status changed from Closed to Reopened

Threshold is too low. I was able to print a 300 dpi with no problem on A1 paper size, in yesterday's osgeo4w revision. Today with error message, even 150 dpi is impossible. We have a regression and this is now a blocker then ;-)

#5 - 2013-06-25 04:11 AM - Giovanni Manghi

just for curiosity: isn't this the old issue of printing on Windows? As QGIS on win is 32bit then it can use just 4gb of ram (actually much less) and then priting of large/complex layouts fails. In my experience the same layouts do print ok on 64bit Linux/Mac boxes.

#6 - 2013-06-25 04:36 AM - Regis Haubourg
- Assignee set to Marco Hugentobler

Well, not sure if it is the same issue. Old one lead to crash, new one lead to no action. I'm now testing with 64 bit Win 7.. I guess a warning message is necessary, but user should be able to try to export anyway.
Régis

#7 - 2013-06-25 05:27 AM - Jürgen Fischer

regis Haubourg wrote:

> *I'm now testing with 64 bit Win 7..*

With a 64bit build? Otherwise it doesn't matter if you running on a 32 or 64bit Windows.

#8 - 2013-07-01 03:32 AM - Hien TRAN-QUANG

The problem is not QGIS but QT ! Presently, exporting an image goes throught QT's memory checks, which depends on the platform (max integer values differ) and the memory (on the heap) available. The error message I introduced only reflects that QT is failing platform tests and/or can't allocate memory for the image. Export can't be done.

To get over QT's memory check needs a complete change in image export (use of imagemagick if QT fails ?)

#9 - 2013-07-01 05:21 AM - Regis Haubourg

Hi, tested today, and i could export 220 dpi - A1 with no problem. A1 - 300 dpi raised a message (see attached screenshot).
As I could export in 300 dpi on the same platform some days ago, before the revision adding that message, could we just add a "continue anyway" button?
it seems that QT test are a bit pessimistic.
Cheers
Régis

#10 - 2013-07-01 03:20 PM - Hien TRAN-QUANG

Sorry, but a "Continue" button won't do anything. We cannot presently rewrite QT source code (even if it would be useful as for SVG export).

Maybe the only way to sort it out for now is for Osgeo4W to build QGIS with a greater HEAP/other linking options.

#11 - 2013-07-01 11:54 PM - Regis Haubourg

Hi,
sorry I probably missed something, I thought error message was raised on QGIS side to prevent possible error on QT image export. Any idea of a possible solution in new Qt version.. Not being able to export 600 dpi for printing will be a great blocker for professionnal users.
cheers,
régis

#12 - 2013-07-04 04:25 PM - Hien TRAN-QUANG

The problem is that QT (4.8 or 5.0) does not raise any error if it can't create the image export. It just returns a NULL object. That's why in the first ticket, there was no action. The warning message in QGIS just tells the user that his computer configuration cannot export the image (memory or max integer issue).

And since this revision, other features/revisions may have used some more memory.

Is exporting a 600dpi PDF or building your own QGIS from source a possible workaround ?

#13 - 2013-07-05 01:12 AM - Regis Haubourg

Why building QGIS from source could solve this?

#14 - 2013-07-05 01:36 AM - Hien TRAN-QUANG

You can specify a different value for heap/stack size, large data flags (see http://msdn.microsoft.com/en-us/library/aa366778%28v=vs.85%29.aspx)

I don't have a windows build environment for now, so I can't test those parameters.

#15 - 2013-07-05 02:40 AM - Regis Haubourg

- Status changed from Reopened to Closed

Ok thanks, this issue could be solved by an official 64 bit build, discussed today in the lists.
I think issue can be closed then, I will probably fund a part of a 64 bit release.
Tanks a lot for your answers.
Régis

#16 - 2013-07-09 01:52 AM - Giovanni Manghi

- Category set to 33

#17 - 2013-07-12 03:10 PM - Giovanni Manghi

- File print_tests.tar.gz added

regis Haubourg wrote:

> *Ok thanks, this issue could be solved by an official 64 bit build, discussed today in the lists.*
> *I think issue can be closed then, I will probably fund a part of a 64 bit release.*

Waiting for an eventual solution thanks to a 64bit build for Windows, I still see crashes on Windows and blank PDF on 64bit Linux, using on the latest master revision:

The attached project is made of a hand full of Spatialite vectors, no fancy symbology, no labels.

Printing as vector works up to A0 and 600dpi.

Printing as raster causes QGIS to crash printing in A0 at 300 dpi (works at 250) and printing in A1 at 450 dpi (works at 300).

Printing as raster (A0 600dpi) fails also on Linux, but instead of crashing it produces silently a blank pdf.

#18 - 2013-11-14 01:06 AM - Stefan Blumentrath

The GarminCustomMap plugin is facing a similar problem (e.g. #5077) when directly importing the mapCanvas, I think.
Like Hien suggests, I tguess it is (at least partly) a Qt issue (see also: http://stackoverflow.com/questions/13574670/problems-with-large-qimage).

However, A0 with 600 DPI is a little less than ca. 20,000 x 30,000 pixels (300 DPI would be 10,000 x 15,000 pixels), which is below Qt`s hard limits (32,768 x 32,768 pixels).

Also, using an image-format with a lower color-depth might help a bit (e.g. QImage::Format_RGB555 instead of QImage::Format_ARGB32) When exporting a QImage.

When directly exporting from mapRenderer even my old 32bit Ubuntu Laptop with 1GB memory manages to export a QImage of 20,000 x 15,000 pixels (Format_RGB555) to PNG.

Files

print_tests.tar.gz	403 KB	2013-07-12	Giovanni Manghi