# QGIS Application - Bug report #2113
# curved labels: only a few are drawn

2009-11-19 12:47 AM - Paolo Cavallini

| | | | | |
|---|---|---|---|---|
| **Status:** | Open | | | |
| **Priority:** | Normal | | | |
| **Assignee:** | | | | |
| **Category:** | Labelling | | | |
| **Affected QGIS version:** | 3.2 | **Regression?:** | No | |
| **Operating System:** | | **Easy fix?:** | No | |
| **Pull Request or Patch supplied:** | | **Resolution:** | | |
| **Crashes QGIS or corrupts data:** | No | **Copied to github as #:** | 12173 | |

**Description**

With the new labelling engine, I always get far too few labels when selection the "curved" option. See attached screenshot an sample file.

**Related issues:**

| | | |
|---|---|---|
| Related to QGIS Application - Bug report # 6763: Labels don't wrap around 90 ... | **Closed** | **2012-11-26** |
| Duplicated by QGIS Application - Feature request # 10740: Curved labelling sh... | **Open** | **2014-06-26** |

**History**

**#1 - 2009-11-19 03:30 AM - Martin Dobias**

The problem is that either the shapes are too short (the label wouldn't fit on the line) or the shapes are too complex and creation of labels candidates fails because the succesive characters would be otherwise rotated "too much", resulting in unreadable labels.

I don't know what should be a correct solution for this. The engine could try to detect such complex shapes and try to simplify on-the-fly them before creating candidates...

**#2 - 2010-07-06 11:23 PM - Borys Jurgiel**

Even on simpler lines, as streets, the curvature threshold seems too low. I can imagine much more curved labels would be still good-looking. Anyway, even if it's acceptable on display, on printouts (or exported files; no matter rasterized or not) it is definitely not. See screenshots label2-* (also wrong scaling and #2796 are visible).

**#3 - 2011-02-10 07:30 PM - Alister Hood**

(sorry, I was meant to post this before attaching)

I agree with this:

> *Even on simpler lines, as streets, the curvature threshold seems too low.*

But I also think that this is necessary:

> *The engine could try to detect such complex shapes and try to simplify on-the-fly them before creating candidates...*

See the labelling on the roads in P1080123_cropped_1.jpg for an example.

**#4 - 2011-07-25 09:15 AM - Paolo Cavallini**

*- Pull Request or Patch supplied set to No*

*- Tracker changed from Bug report to 4*

*- Start date set to 2011-07-25*


**#5 - 2011-12-16 01:58 PM - Giovanni Manghi**

*- Target version changed from Version 1.7.0 to Version 1.7.4*


**#6 - 2012-04-15 09:22 AM - Giovanni Manghi**

*- Affected QGIS version set to master*

*- Tracker changed from 4 to Bug report*

*- Crashes QGIS or corrupts data set to No*


**#7 - 2012-04-16 05:16 AM - Giovanni Manghi**

*- Operating System deleted (Debian)*

*- Priority changed from Low to Normal*

*- Status info deleted (0)*


see also #4855


**#8 - 2012-04-16 06:22 AM - Paolo Cavallini**

*- Target version changed from Version 1.7.4 to Version 1.8.0*


**#9 - 2012-07-28 05:13 AM - Giovanni Manghi**

*- Category changed from Symbology to Labelling*


**#10 - 2012-09-04 12:04 PM - Paolo Cavallini**

*- Target version changed from Version 1.8.0 to Version 2.0.0*


**#11 - 2012-09-16 01:24 AM - Giovanni Manghi**

*- Assignee changed from Martin Dobias to Larry Shaffer*


**#12 - 2012-11-17 05:15 AM - Anita Graser**

*- Priority changed from Normal to High*


**#13 - 2012-11-27 05:44 PM - Larry Shaffer**

*- Status changed from Open to In Progress*


See #6763-6 for update on related issue.

Please test with commit:ee12df2 and *inside* and *outside* angles greater than 20 to see higher label count (especially if you still have the original data). Some comparison screen snaps again would be nice.

Any settings higher than *inside* of 30 or *outside* of 50 (and possibly lower in some cases) will start producing some funky-looking labels. QGIS <= 1.8 had a setting of 20 for both angles.


**#14 - 2012-12-30 09:51 AM - Giovanni Manghi**

*- Priority changed from High to Normal*

**#15 - 2014-01-30 11:43 PM - Paolo Cavallini**

*- Target version changed from Version 2.0.0 to Future Release - High Priority*

**#16 - 2014-06-30 02:19 AM - Paolo Cavallini**

Still far from optimal

**#17 - 2014-06-30 02:20 AM - Paolo Cavallini**

Partly duplicated in #10740

**#18 - 2014-06-30 10:54 AM - aperi2007 -**

Hi,

in #10740.

I give a potential solution.

My solution is to enhance the code to support an optionally second change to not lost any label that don't allow to be curved. Putting it parallel.

It is quite flexible because it give the grant to not lost any label.

Actually no one of out power users use the curve string solution. Because they are always the question to know if lost any label.

Out map infct could not lost any label.And so they use always the parallel strings to be sure to have all the labels.

I guess the parallel string as an otherwise solution could be supported using a checkbox to active it optionally.

This probably could help to use the curve solution.

I like to know if this feature could be accepted.

Please note that don't mean that we are capble to fund this solution.

This is only a proof of concept to understand if there is a potential solution for this.

One time to decide what is the solution.

The second point is understand how much cost to develope it.

:)

Regards,

Andrea.

**#19 - 2014-07-01 04:48 AM - Paolo Cavallini**

As discussed on the mailing list long ago, probably the best approach would be to simplify (generalize) complex (multi)lines on the fly, so that the labels will follow the best approximation to the original curve, without becoming too garbled or disappearing altogether.

I suggest to use a similar approach to geometry simplification done by Alvaro, maybe even some of the same functions.

**#20 - 2014-07-01 05:54 AM - aperi2007 -**

The simplify approach is could be affordable for a print goal .

But could be too slowly for a web browsing map.

Almost if the question is a run-time simplify approach.

Are you speaking of an extra layer maually added to the project and simplified previously offline.
Rendered also with 100% transparency and used to obtain  the curved label ?

I guess the primary question is not resolved however.
Infact after the simplify, no-one could know if the simplify was sufficient to avoid the lost of the label.

Or you are speaking of an iterative simplification increasing the simplify untile the label could appear ?

This could work but I guess it could be mortally slow.
Not more on qgis-desktop where the asynchornocity of the multithread could assure to do this meanwhile qgis do other thinks,
but instead on qgis-server where the mp is before produce and after send.

It could slow the map production of an impredictable time due to the situation of label on that portion f map.

A.


**#21 - 2014-07-01 05:57 AM - Paolo Cavallini**

I suggest the same approach as Alvaro OTF simplification, which is actually quite fast.
The default could be crafted so as to show all the labels, or this could be forced with an option.


**#22 - 2014-07-21 11:32 PM - aperi2007 -**

Hi,

we like to understand if this problem is resolvable or not.

The solution proposed:

> *As discussed on the mailing list long ago, probably the best approach would be to simplify (generalize) complex*
> *(multi)lines on the fly, so that the labels will follow the best approximation to the original curve, without*
> *becoming too garbled or disappearing altogether.*


I guess in not a sure solution.
I understand it augment the statistically of label curved used, and reduce the statistical of label lost, but we need to have Label Lost = 0 (zero) .

The try to introduce this need n a simplifiy algorithm will introduce an iterative procedure that could put the time to elaborate to infinite.

I guess to grant this is necessary to introduce a rule specific like this:
is the single label is not fittable in a curved line it will put parallel.


**#23 - 2017-05-01 01:09 AM - Giovanni Manghi**

*- Regression? set to No*
*- Easy fix? set to No*

**#24 - 2018-01-29 06:40 PM - Paolo Cavallini**

Still true in master.


**#25 - 2018-02-24 03:15 PM - Paolo Cavallini**

*- Assignee deleted (Larry Shaffer)*

*- Affected QGIS version changed from master to 3.0.0*


**#26 - 2018-10-14 07:52 PM - Tom Grundy**

*- File qgis_2113_parallel.png added*

*- File qgis_2113_curved.png added*


This problem still exists in 3.2.1. I tried increasing letter spacing and changing to all-caps for the letter sizes to be more predictable, but did not see any improvement. Images attached with labeling set to parallel and another with labeling set to curved with no other changes.


**#27 - 2018-10-14 11:20 PM - Giovanni Manghi**

*- Status changed from In Progress to Open*

*- Affected QGIS version changed from 3.0.0 to 3.2*


**Files**

| | | | |
|---|---|---|---|
| labels.png | 134 KB | 2009-11-18 | Paolo Cavallini |
| fiumi-princ.zip | 184 KB | 2009-11-18 | Paolo Cavallini |
| labels2-composer.png | 89.6 KB | 2010-07-06 | Borys Jurgiel |
| labels2-printout.pdf | 82.6 KB | 2010-07-06 | Borys Jurgiel |
| P1080123_cropped_1.jpg | 254 KB | 2011-02-10 | Alister Hood |
| qgis_2113_parallel.png | 425 KB | 2018-10-14 | Tom Grundy |
| qgis_2113_curved.png | 271 KB | 2018-10-14 | Tom Grundy |