

QGIS Application - Bug report #5896

Identify of WMS layers does not work

2012-06-28 04:58 AM - Giovanni Manghi

Status:	Closed	
Priority:	Severe/Regression	
Assignee:	Radim Blazek	
Category:	Web Services clients/WMS	
Affected QGIS version:	master	Regression?: No
Operating System:	unspecified	Easy fix?: No
Pull Request or Patch supplied:	No	Resolution:
Crashes QGIS or corrupts data:	No	Copied to github as #: 15345
Description		
New description:		
see comments 27 and 28		

Old description:		
when reprojecting (in a different CRS) WMS layers that at the source are point/line vectors, then the identify tool does not returns no results.		
This ticket has been a little "wild", so the new description is to make things a little clear.		
There was an issue also with polygons, but this seems to work (as server tested both qgis server and mapserver). I'm not sure about lines.		
The identify of reprojected rasters also seems to work ok now, but I tested only with qgis server.		

Old Old description:		
This affects both 1.8 and master.		
Use the attached projects to test. The WMS layer in the project is originally in wgs84. When reprojected in a projected CRS/project the identify tool gives different values when querying the same pixels.		

Associated revisions

Revision 62075294 - 2014-01-29 06:01 PM - Radim Blazek

identify reprojected raster: use 1x1 pixel context in layer crs to get reasonable search tolerance for WMS GetFeatureInfo, fixes #5896

History

#1 - 2012-06-28 05:01 AM - Jürgen Fischer

- Assignee deleted (Marco Hugentobler)

#2 - 2012-08-18 04:50 AM - Jürgen Fischer

The WMS references in the projects times out...

But thanks for that - that way I notices that the network time outs didn't work :)

#3 - 2012-08-18 04:58 AM - Giovanni Manghi

Jürgen Fischer wrote:

| *The WMS references in the projects times out...*

Yes, that server is down until next week, anyway you can test with any server

| *But thanks for that - that way I notices that the network time outs didn't work :)*

#4 - 2012-08-20 08:26 AM - Giovanni Manghi

Jürgen Fischer wrote:

| *The WMS references in the projects times out...*

it works again

#5 - 2012-10-05 12:47 PM - Giovanni Manghi

- File deleted (*wms_reprojected.qgs*)

#6 - 2012-10-05 12:48 PM - Giovanni Manghi

- File deleted (*wms_not_reprojected.qgs*)

#7 - 2012-10-05 12:51 PM - Giovanni Manghi

- File *wms_reprojected.qgs* added

- File *wms_not_reprojected.qgs* added

Still confirmed on master. Two sample projects attached.

#8 - 2012-12-30 09:51 AM - Giovanni Manghi

- Priority changed from *High* to *Normal*

#9 - 2013-09-30 12:32 AM - Giovanni Manghi

- Priority changed from *Normal* to *Severe/Regression*

- File *wms_identify_18.qgs* added

- File *wms_identify_201.qgs* added

- File *wms_identify_master.qgs* added

- Subject changed from *Identify of reprojected WMS gives wrong values* to *Identify of reprojected WMS gives wrong values (now identify of wms layers does not work at all on 2.0.1/master)*

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

The identify of WMS layers does not seem to work at all in 2.0.1 and master, even with otfr off.

Attached examples, you must open with qgis 1.8 and 2.0.1 or master: in 1.8 the identify works, with the same layers from the same server in 2.0.1/master identify does not work, so at this moment I can't even test if the original issue described here is still an issue or not (likely to be).

#10 - 2013-09-30 01:04 AM - Giovanni Manghi

- Crashes QGIS or corrupts data changed from No to Yes
- File *wms_identify_18_notreprojected.qgs* added
- File *wms_identify_18_reprojected.qgs* added
- File *wms_identify_201_notreprojected.qgs* added
- File *wms_identify_201_reprojected.qgs* added

Giovanni Manghi wrote:

| *The identify of WMS layers does not seem to work at all in 2.0.1 and master, even with otfr off.*

Well, this is not true with all the servers. I have just tested one where identify works, but I can (obviously) confirm that in 1.8 when OTFR is on the results are wrong.

Open attached projects (*wms_identify_18_reprojected* / *wms_identify_18_notreprojected*) in qgis 1.8 and test by identifying the red polygon will show in the canvas.

On the other hand identifying the same layer in QGIS 2.0.1/master with OTFR on leads qgis to crash:

- *open the attached projects in qgis 2.0.1 (*wms_identify_201_reprojected* / *wms_identify_201_notreprojected*)
- *identify something
- *click on the result window -> instant crash if the project is the one with OTFR on

#11 - 2013-09-30 01:04 AM - Giovanni Manghi

- File deleted (*wms_not_reprojected.qgs*)

#12 - 2013-09-30 01:04 AM - Giovanni Manghi

- File deleted (*wms_reprojected.qgs*)

#13 - 2013-09-30 01:07 AM - Giovanni Manghi

- Subject changed from *Identify of reprojected WMS gives wrong values* (now *identify of wms layers does not work at all on 2.0.1/master*) to *Identify of reprojected WMS gives wrong values, does not work or leads to qgis crash*

Giovanni Manghi wrote:

Giovanni Manghi wrote:

| *The identify of WMS layers does not seem to work at all in 2.0.1 and master, even with otfr off.*

Well, this is not true with all the servers. I have just tested one where identify works, but I can (obviously) confirm that in 1.8 when OTFR is on the results are wrong.

*Open attached projects (*wms_identify_18_reprojected* / *wms_identify_18_notreprojected*) in qgis 1.8 and test by identifying the red polygon will show*

in the canvas.

On the other hand identifying the same layer in QGIS 2.0.1/master with OTFR on leads qgis to crash:

open the attached projects in qgis 2.0.1 (wms_identify_201_reprojected / wms_identify_201_notreprojected)

identify something

click on the result window -> instant crash if the project is the onw with OTFR on

#14 - 2013-10-01 02:15 AM - Radim Blazek

The bug in master (will be 2.1), i.e. crash if format is feature and OTFR is no was fixed by commit commit:96bd7e7, see #8724.

This issue should be probably divided in two, because the issues with 1.8 and 2.0/master are different.

#15 - 2013-10-01 02:30 AM - Giovanni Manghi

Radim Blazek wrote:

The bug in master (will be 2.1), i.e. crash if format is feature and OTFR is no was fixed by commit commit:96bd7e7, see #8724.

This issue should be probably divided in two, because the issues with 1.8 and 2.0/master are different.

this ticket is really about the wrong identify result issue. At some point I was just saying that because of the crash I wasn't able to prove the issue on qgis 2.0.

#16 - 2013-10-01 02:31 AM - Giovanni Manghi

- Priority changed from Severe/Regression to Normal

- Subject changed from Identify of reprojected WMS gives wrong values, does not work or leads to qgis crash to Identify of reprojected WMS gives wrong values or does not work

- Crashes QGIS or corrupts data changed from Yes to No

#17 - 2013-10-01 02:38 AM - Radim Blazek

Giovanni Manghi wrote:

this ticket is really about the wrong identify result issue. At some point I was just saying that because of the crash I wasn't able to prove the issue on qgis 2.0.

OK, in that case the target version should be lowered to 1.8, but there is no such version in the options.

#18 - 2013-10-06 05:48 AM - Giovanni Manghi

- Subject changed from Identify of reprojected WMS gives wrong values or does not work to Identify of WMS layers does not work or gives wrong values when layers are reprojected

- Priority changed from Normal to Severe/Regression

I confirm that identify WMS layer seems broken in 2.0.1/master

Add this layer (postos de vigia)

crs=EPSG:3763&featureCount=10&format=image/png&layers=Postos%20de%20Vigia&styles=&url=http://mapas.dgterritorio.pt/wms/crif

from this server

<http://mapas.dgterritorio.pt/wms/crif>

in a new project, in one of the proposed CRSs and no reprojection.

- on qgis 1.8 identify works
- on qgis 2.0.1/master the identify does not find anything

#19 - 2013-10-06 08:27 AM - Giovanni Manghi

Giovanni Manghi wrote:

I confirm that identify WMS layer seems broken in 2.0.1/master

Add this layer (postos de vigia)

crs=EPSG:3763&featureCount=10&format=image/png&layers=Postos%20de%20Vigia&styles=&url=http://mapas.dgterritorio.pt/wms/crif

from this server

<http://mapas.dgterritorio.pt/wms/crif>

in a new project, in one of the proposed CRSs and no reprojection.

- on qgis 1.8 identify works*
- on qgis 2.0.1/master the identify does not find anything*

tested also with

http://wms.pcn.minambiente.it/ogc?map=/ms_ogc/WMS_v1.3/raster/DTM_75M.map

#20 - 2013-10-07 12:21 PM - Giovanni Manghi

see also #8724-17

(identify of reprojected wms layer is wrong).

#21 - 2014-01-27 12:47 AM - Giovanni Manghi

- Subject changed from Identify of WMS layers does not work or gives wrong values when layers are reprojected to Identify of WMS layers does not work for reprojected point layers

#22 - 2014-01-27 12:49 AM - Giovanni Manghi

Radim Blazek wrote:

The bug in master (will be 2.1), i.e. crash if format is feature and OTFR is no was fixed by commit commit:96bd7e7, see #8724.

This issue should be probably divided in two, because the issues with 1.8 and 2.0/master are different.

Hi Radim,

I added a new description/title to this ticket to makes things a little more clear. It seems that overall things are ok. The only remaining issue seems to be with reprojected point layers: the identify does not return any result. reprojected Polygons are ok (rasters too), not sure about lines.

#23 - 2014-01-27 02:44 AM - Giovanni Manghi

- Subject changed from *Identify of WMS layers does not work for reprojected point layers* to *Identify of WMS layers does not work for reprojected point and line layers*

I added a new description/title to this ticket to makes things a little more clear. It seems that overall things are ok. The only remaining issue seems to be with reprojected point layers: the identify does not return any result. reprojected Polygons are ok (rasters too), not sure about lines.

it affects lines too

#24 - 2014-01-29 02:35 AM - Radim Blazek

- Assignee set to *Radim Blazek*

#25 - 2014-01-29 09:03 AM - Radim Blazek

- Status changed from *Open* to *Closed*

Fixed in changeset commit:"62075294638e3716c244371d056797efda125905".

#26 - 2014-01-29 09:13 AM - Radim Blazek

Confirmed for points and lines and fixed. Identify tool is now using as context 1x1 pixel box reprojected to layer CRS. WCS was modified accordingly to effectively use cache for identify with small context size.

Good to know:

WMS 1.1 specification:

The behavior described above is geared toward the picture case. In the graphic element case, the semantics of GetFeatureInfo are less defined. The intent is to gain experience with this version of the request and perhaps provide additional rigor in future versions of the specification.

The actual semantics of how a WMS decides what to return more information about, or what exactly to return is left up to the WMS provider.

WMS 1.3 specification:

The actual semantics of how a WMS decides what to return more information about, or what exactly to return, are left up to the WMS provider.

UMN Mapserver is using for vector point/line layers features search the pixel specified in request plus buffer around specified by TOLERANCE (layer param).

#27 - 2014-03-05 06:54 AM - Giovanni Manghi

- Status changed from *Closed* to *Reopened*

- Target version changed from *Future Release* - High Priority to *Version 2.4*

sorry to reopen this, I'm testing again and still see issues:

qgis 2.2 as client

1) qgis server 2.2

identify works for vector layers if otfr is off or if is on but no actual reprojection is made

if otfr is on and layers are reprojected then identify of points and line features does not work. The identify window opens but then the result are empty. Polygons identify seems to work.

2) qgis server 2.2

if I identify a feature and change the mode to "feature" the result is empty (probably because qgis server does not support it, ok). If the user closes the identify window and try identify again then nothing happens and in the bottom left corner of qgis main windows shows a "no features at this position found" message. The is necessary to remove and add again the layer to get the identify work again.

3) mapserver 6.4.1

if otfr is on and layers are reprojected then identify of points features does not work. The message that shows is "no features at this position found", and no window is open. Polygons and lines identify seems to work.

3) mapserver 6.4.1

when identifying on mapserver 6.4.1 (using the default modes "text/plain" and "GML" server side), the attributes show only for the "feature" mode (client side), not for "text".

#28 - 2014-03-05 08:44 AM - Giovanni Manghi

- Subject changed from Identify of WMS layers does not work for reprojected point and line layers to Identify of WMS layers does not work

qgis 2.3 as client

1) mapserver 6.4.1

identify does not work in any case, with any kind of features

2) qgis server 2.2

identify works for vector layers if otfr is off or if is on but no actual reprojection is made

if otfr is on and layers are reprojected then identify of points and line features does not work. The identify window opens but then the result are empty. Polygons identify seems to work.

#29 - 2014-03-05 08:45 AM - Giovanni Manghi

I do not have time to test also rasters... but it would be needed because it was an issue in the past (wrong pixel value for reprojected wms layers) and it could be again.

#30 - 2014-03-10 01:11 AM - Radim Blazek

Giovanni Manghi wrote:

3) mapserver 6.4.1

when identifying on mapserver 6.4.1 (using the default modes "text/plain" and "GML" server side), the attributes show only for the "feature" mode (client side), not for "text".

GetFeatureInfo response for text/plain is not empty?

Regarding points/lines with OTFR. The WMS GetFeatureInfo does not work with a coordinate in CRS, it works with extent + width/height + pixel coordinate within that extent. We call the extent + width/height a context in QGIS. If OTFR is on, QGIS is using as extent a single pixel size rectangle around the point reprojected to WMS source CRS. Because it is known, that Mapserver does not work with 1x1, the WMS provider adds another pixel in width and height. That was working with 6.0.3. Not sure if Mapserver changed or it is not always sufficient.

Could you try to take the GetFeatureInfo request and modify it by hand and test in browser adding more pixels around the point to find what buffer around the point is necessary?

Another thing to test is TOLERANCE param in mapfile.

#31 - 2014-03-26 01:36 AM - Radim Blazek

Is it available a public server for testing?

Which source data and client CRS?

#32 - 2014-03-26 10:37 AM - Radim Blazek

Regarding QGIS WMS server, it has no sense to do any debugging on client side until #9896 (GetFeatureInfo search radius) is resolved.

#33 - 2014-05-16 12:40 PM - aperi2007 -

You can use this public server.

<http://www502.regione.toscana.it/wmsraster/com.rt.wms.RTmap/wms?map=wmsambamm>

Use the Layer

rt_ambamm.idcomuni.rt.poly

The original source is in EPSG::3003

you can request in wms 1.1.1 or wms 1.3.0

the available CRS are:

EPSG:25832 EPSG:3003 EPSG:4326 EPSG:3857 EPSG:32632

To test this ticket I suggest you try to identify near a boundary better if it is a boundary of three polygons, so you can see better if the result is on a polygon or in the near polygon.

Also

2025-04-27

8/13

this is a sample of request getfeatureinfo:

http://www502.regione.toscana.it/wmsraster/com.rt.wms.RTmap/wms?map=wmsambamm&language=ita&SERVICE=WMS&VERSION=1.0&REQUEST=GetFeatureInfo&BBOX=1617043.371614,4810657.326353,1617576.552829,4810931.280957&CRS=EPSG:3003&WIDTH=581&HEIGHT=437&LAYERS=rt_ambamm.idcomuni.rt.poly&STYLES=&FORMAT=image/png&QUERY_LAYERS=rt_ambamm.idcomuni.rt.poly&FEATURE_COUNT=10&INFO_FORMAT=text/html&I=240&J=200

The request is a standard wms 1.3.0 request. It ask for a BOX with a declared coordinate of 1617043.371614,4810657.326353,1617576.552829,4810931.280957 in epsg:3003.

Most important are the parameter I & J they are the point in pixel unit in the declared box where the mouse click on the GIS client.

In this request , the response return an html page but in the superior part of it you can see the coordinate in epsg:3003 and in geographics. So you can compare it with your results.

A.

#34 - 2014-05-19 10:54 AM - Radim Blazek

- Status changed from Reopened to Feedback

I tested rt_ambamm.idcomuni.rt.poly with EPSG: 4326, 3857, 3003, 25832, 32632, 4326 reprojected to 3857 and 3857 reprojected to 4326 with html format and all works correctly for me.

Can you please specify exactly which EPSG use for the layer and for the project to reproduce the error?

#35 - 2014-05-20 10:05 AM - Giovanni Manghi

testes were made adding the layers in a projected CRS (3763, is the one defined for the layers) and then reprojecting to WGS84. The dataset (and projects and mapfiles) will be sent privately.

vectors

1) qgis 2.2/master as client, qgis 2.2 as server

http://148.251.4.143/cgi-bin/qgis_mapserv.fcgi?map=/home/gmanghi/public_html/testes_wms/project_qgis_22_vectors.qgs

Identify works for vector layers if otfr is OFF or if is ON, but no actual reprojection is made

If otfr is ON and layers are reprojected then identify of points and lines features does not work. The identify window opens but then the result are empty. Polygons identify works.

2) qgis 2.2/master as client, qgis 2.2 as server

http://148.251.4.143/cgi-bin/qgis_mapserv.fcgi?map=/home/gmanghi/public_html/testes_wms/project_qgis_22_vectors.qgs

if I identify a feature and change the mode to "feature" the result is empty (probably because qgis server does not support it, ok). If the user closes the identify window and try identify again then nothing happens and in the bottom left corner of qgis main windows shows a "no features at this position found" message. Then is necessary to remove and add again the layer to get the identify work again.

3) qgis 2.2 as client, mapserver 6.4.1 as server

http://148.251.4.143/cgi-bin/mapserv?map=/home/gmanghi/public_html/testes_wms/project_mapserver_641_vectors.map

TOLERANCE helps a lot for points and lines.

With reprojection OFF or ON identify is ok but only for "feature" mode (I have not tested to configure the HTML response server side, but I assume is ok).

"Text" mode always return no attributes, but this may not be a QGIS issue after all, in fact here

http://mapserver.org/ogc/wms_server.html#setup-a-mapfile-for-your-wms

there is an example where the text getfeatureinfo does not work too

http://demo.mapserver.org/cgi-bin/wms?SERVICE=WMS&VERSION=1.1.1&REQUEST=GetFeatureInfo&BBOX=-11.332970,24.121208,4.584718,57.965035&SRS=EPSG:4326&WIDTH=1001&HEIGHT=575&LAYERS=cities&STYLES=&FORMAT=image/png&TRANSPARENT=true&QUERY_LAYERS=cities&INFO_FORMAT=text/plain&X=229&Y=280

while html/gml are ok

http://demo.mapserver.org/cgi-bin/wms?SERVICE=WMS&VERSION=1.1.1&REQUEST=GetFeatureInfo&BBOX=-11.332970,24.121208,4.584718,57.965035&SRS=EPSG:4326&WIDTH=1001&HEIGHT=575&LAYERS=cities&STYLES=&FORMAT=image/png&TRANSPARENT=true&QUERY_LAYERS=cities&INFO_FORMAT=text/html&X=229&Y=280

4) qgis master as client, mapserver 6.4.1 as server

http://148.251.4.143/cgi-bin/mapserv?map=/home/gmanghi/public_html/testes_wms/project_mapserver_641_vectors.map

Identify does not works at all, regardless if reprojection in OFF or ON, it always returns "no features at this position found".

rasters

1) qgis 2.2/master as client, qgis 2.2 as server

http://148.251.4.143/cgi-bin/qgis_mapserv.fcgi?map=/home/gmanghi/public_html/testes_wms/project_qgis_22_rasters.qgs

Identify works ok regardless if oftr in OFF or ON.

2) qgis 2.2/master as client, mapserver 6.4.1 as server

http://148.251.4.143/cgi-bin/mapserv?map=/home/gmanghi/public_html/testes_wms/project_mapserver_641_rasters.map

Identify works ok regardless if oftr in OFF or ON.

#36 - 2014-05-20 10:20 AM - Etienne Tourigny

Giovani - can you please test that the identify tool plugin works with wms rasters?

#37 - 2014-05-20 10:25 AM - Giovanni Manghi

Etienne Tourigny wrote:

| Giovanni - can you please test that the identify tool plugin works with wms rasters?

it is a python plugin available in the plugin repo?

#38 - 2014-05-21 11:22 PM - Radim Blazek

Giovanni Manghi wrote:

testes were made adding the layers in a projected CRS (3763, is the one defined for the layers) and then reprojecting to WGS84. The dataset (and projects and mapfiles) will be sent privately.

Giovanni, thanks for exhaustive and well documented tests, I'll try to address all remaining problems.

vectors

1) qgis 2.2/master as client, qgis 2.2 as server

http://148.251.4.143/cgi-bin/qgis_mapserv.fcgi?map=/home/gmanghi/public_html/testes_wms/project_qgis_22_vectors.qgs

Identify works for vector layers if otrr is OFF or if is ON, but no actual reprojection is made

If otrr is ON and layers are reprojected then identify of points and lines features does not work. The identify window opens but then the result are empty. Polygons identify works.

Until the QGIS mapserver GetFeatureInfo search radius is fixed (#9896), it is useless to debug the client.

2) qgis 2.2/master as client, qgis 2.2 as server

http://148.251.4.143/cgi-bin/qgis_mapserv.fcgi?map=/home/gmanghi/public_html/testes_wms/project_qgis_22_vectors.qgs

if I identify a feature and change the mode to "feature" the result is empty (probably because qgis server does not support it, ok). If the user closes the identify window and try identify again then nothing happens and in the bottom left corner of qgis main windows shows a "no features at this position found" message. Then is necessary to remove and add again the layer to get the identify work again.

There were two problems:

- Feature format was not working at all probably since JSON support introduction, see also #10306, fixed in commit:be318fe6
- QGIS server is using rather particular GML flavour, support added in commit:c00bcb1b

3) qgis 2.2 as client, mapserver 6.4.1 as server

http://148.251.4.143/cgi-bin/mapserv?map=/home/gmanghi/public_html/testes_wms/project_mapserver_641_vectors.map

TOLERANCE helps a lot for points and lines.

With reprojection OFF or ON identify is ok but only for "feature" mode (I have not tested to configure the HTML response server side, but I assume is ok).

"Text" mode always return no attributes, but this may not be a QGIS issue after all

There are no attributes because your project_mapserver_641_vectors.map is missing

"wms_include_items" "all"

in layers METADATA.

4) qgis master as client, mapserver 6.4.1 as server

http://148.251.4.143/cgi-bin/mapserv?map=/home/gmanghi/public_html/testes_wms/project_mapserver_641_vectors.map

Identify does not work at all, regardless if reprojection is OFF or ON, it always returns "no features at this position found".

"Feature" format was broken, it should be fixed, see #10306. For me it works with current master.

I hope that all the problems are resolved, please verify and close if it works for you.

#39 - 2014-05-24 08:08 AM - Giovanni Manghi

There are no attributes because your project_mapserver_641_vectors.map is missing
[...]
in layers METADATA.

of course, sorry for that.

#40 - 2014-05-24 08:26 AM - Etienne Tourigny

Giovanni Manghi wrote:

Etienne Tourigny wrote:
Giovanni - can you please test that the identify tool plugin works with wms rasters?
it is a python plugin available in the plugin repo?

yes, it's one of the most popular plugins

there is a mention in this ticket that wms layers are not identified.

#4536

Radim: as you have been working on the value tool plugin before, can you test it? I don't know enough about WMS to be helpful.

#41 - 2014-05-24 08:33 AM - Radim Blazek

Isn't it disabled in ValueTool for WMS? It should be.

The ValueTool prints value for each pixel the mouse moves over. For WMS it would mean to send a request for each pixel. If you move the mouse over the

whole canvas it could mean thousands of requests in a second....

#42 - 2014-05-24 08:45 AM - Etienne Tourigny

wow didn't think about that... but I added a "mouse click" option, I'll see if I can enable identify for wms layers when this option is enabled. Thanks for the info.

#43 - 2014-05-26 03:54 AM - Radim Blazek

- Status changed from Feedback to Closed

Ticket fixed with funding from Regione Toscana-SITA (CIG:ZB10C90E5A).

Files			
wms_identify_18.qgs	8.23 KB	2013-09-29	Giovanni Manghi
wms_identify_201.qgs	6.38 KB	2013-09-29	Giovanni Manghi
wms_identify_master.qgs	8.23 KB	2013-09-29	Giovanni Manghi
wms_identify_18_notreprojected.qgs	6.34 KB	2013-09-29	Giovanni Manghi
wms_identify_18_reprojected.qgs	6.12 KB	2013-09-29	Giovanni Manghi
wms_identify_201_notreprojected.qgs	4.26 KB	2013-09-29	Giovanni Manghi
wms_identify_201_reprojected.qgs	6.04 KB	2013-09-29	Giovanni Manghi