QGIS Application - Bug report #15829
georeferencer - logical error during loadGCPs

2016-11-10 01:37 AM - Mark Johnson

Status:	Closed			
Priority:	High			
Assignee:				
Category:	C++ plugins/Georeferencer			
Affected QGIS version:	2.18.0	**Regression?:**	No	
Operating System:		**Easy fix?:**	No	
Pull Request or Patch supplied:	No	**Resolution:**		
Crashes QGIS or corrupts data:	No	**Copied to github as #:**	23749	

Description

While working on the georeferencer, I have noticed a logical error during the function 'loadGCPs'.

When the .points file is being read, after reading **each point**, the function 'addPoint' is called.

'addPoint'
- creates a new QgsGeorefDataPoint
- creates a SIGNAL for the QgsGeorefDataPoint
- appends it to 'mPoints'

and then calls mGCPListWidget->setGCPList(&mPoints);

which will (re-)build the QTableView with any needed calculations.

In a case where there are 892 points
- 'setGCPList' is called 892 times and takes a good minute to load

When this is corrected to call 'setGCPList' **after** the building of 'mPoints' has been completed
- the loading takes a few seconds, since the QTableView is only being build once

Since the QTableView is not needed during the reading of the .points file
- 'setGCPList' should only be called once

Associated revisions

Revision 59a0e2fb - 2016-12-05 02:09 AM - Mark Johnson

Fix #15829 georeferencer - resolve logical error during loadGCPs

History

#1 - 2016-11-10 08:17 AM - Mark Johnson

This could then be something in the form of:

```
bool QgsGeorefPluginGui::loadGCPs( /*bool verbose*/ )
{
  QFile pointFile( mGCPpointsFileName );
  if ( !pointFile.open( QIODevice::ReadOnly ) )
  {
```

```
        return false;
    }

    clearGCPData();

    QTextStream points( &pointFile );
    QString line = points.readLine();
    while ( !points.atEnd() )
    {
...
        QgsPoint mapCoords( ls.at( 0 ).toDouble(), ls.at( 1 ).toDouble() ); // map x,y
        QgsPoint pixelCoords( ls.at( 2 ).toDouble(), ls.at( 3 ).toDouble() ); // pixel x,y
        QgsGeorefDataPoint* pnt;
        if ( ls.count() == 5 )
        {
         bool enable = ls.at( 4 ).toInt();
         pnt = new QgsGeorefDataPoint( mCanvas, mIface->mapCanvas(), pixelCoords, mapCoords, enable);
        }
        else
          pnt = new QgsGeorefDataPoint( mCanvas, mIface->mapCanvas(), pixelCoords, mapCoords,true);

        mPoints.append( pnt );
        connect( mCanvas, SIGNAL( extentsChanged() ), pnt, SLOT( updateCoords() ) );
        ++i;
    }
    mInitialPoints = mPoints;
    mGCPsDirty = true;
    }
    if ( mGCPsDirty )
    {
     mGCPListWidget->setGCPList( &mPoints );
     updateGeorefTransform();
     mCanvas->refresh();
     mIface->mapCanvas()->refresh();
    }

    return true;
    }
```

#2 - 2016-11-10 03:43 PM - Nyall Dawson

Mark - this looks good! Could you submit this as a pull request to the QGIS Github repo (https://github.com/qgis/QGIS)? That's the usual approach to get changes like this merged in.

#3 - 2016-11-11 09:18 AM - Mark Johnson

Done, see:

https://github.com/qgis/QGIS/pull/3754

please see the notes of the pull, since other files diff have been included.

#4 - 2016-12-04 05:21 PM - Mark Johnson

- Status changed from Open to Closed

Fixed in changeset commit:"59a0e2fb886fc0bcf620c860bba85d3863c46b73".