



Integrating the Geospatial Workplace

# New Features in TerraMatch

What's New in Terrasolid v014?  
Webinar  
13 February 2014


Darrick Wagg  
GeoCue Corporation  
9668 Madison Blvd., Suite 202  
Madison, AL 35758  
+1 (256) 461-8289  
[support@geocue.com](mailto:support@geocue.com)  
[www.geocue.com](http://www.geocue.com)



Integrating the Geospatial Workplace

# Draw Observations

- Menu command in tie lines for drawing observation points into design file
- Useful in workflow for solving camera misalignment angles in mobile data:
  1. Solve laser misalignment angles and apply
  2. Find signal markers in laser data
  3. Draw signal markers position in laser data into design file
  4. Collect tie points in images using laser signal marker positions as known xyz points from same drive pass only
  5. Solve camera misalignment angle matching camera to laser data

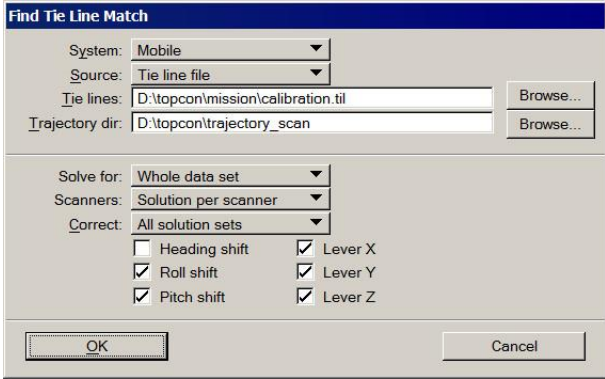


13Feb2014 What's New in Terrasolid v014? - Webinar 2

GeoCue Integrating the Geospatial Workplace

## Lever Arm Solution

- **Find Tie Line Match** can solve for lever arm X, Y and Z corrections for mobile scanners
- Written for Velodyne (Topcon) systems with possibly 64 laser heads



13Feb2014 What's New in TerraSolid v014? - Webinar 3

GeoCue Integrating the Geospatial Workplace

## Apply Correction Key-in Parameters

- **Apply Correction** can be run using key-in for automation (another application can send the key-in command)
- Parameters:
  - apply=points/project/tiefile/tielines/images
  - trajdir=trajectory\_folder (c:\vt6\trajectory\_scan)
  - project=project\_file (c:\vt6\laser02\vt6.prj)
  - writedir=result\_folder (c:\vt6\laser03)
  - corrections=correction file (c:\vt6\calib\fluct\_xyz.tms)
  - run=0/1
- Example key-in command:
 

```
apply correction apply=project/project=g:\vt6\laser06\vt6.prj
/writedir=c:\backup/corrections=g:\vt6\calib\fluct_xyz1.tms/run=1
```

13Feb2014 What's New in TerraSolid v014? - Webinar 4

GeoCue Integrating the Geospatial Workplace

## Find Rubber Sheet Correction

- Fixes data to match control points using a triangulated correction model for XYZ, XY or Z
- Observations come from tie lines
- Possible last adjustment step for aerial airborne data:
  1. Match data internally
  2. Match to control using rubber sheet

**Find Rubbersheet Fit**

Source: Active tie lines

Trajectory dir: E:\jyvaskyla\_airborne\trajectory Browse...

Solve: Z

Expand model: Closest correction

---

**Averaging**

Max count: 15 closeby points

Max distance: 50.0 m

Merge final correction points

OK Cancel

13Feb2014 What's New in Terrasolid v014? - Webinar 5

GeoCue Integrating the Geospatial Workplace

## Find Rubber Sheet Correction

*Elevation differences to control*

*Correction model*

13Feb2014 What's New in Terrasolid v014? - Webinar 6