New Features In TerraPhoto

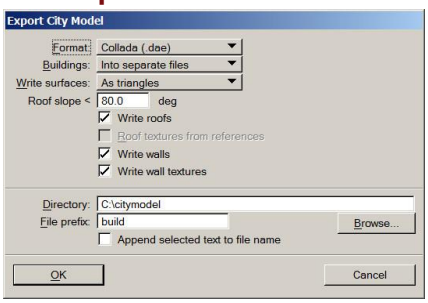
What's New in Terrasolid v015?

Webinar

18 February 2015

Darrick Wagg
GeoCue Group
9668 Madison Blvd., Suite 202
Madison, AL 35758
+1 (256) 461-8289
support@geocue.com
support.geocue.com

Export City Model Improvements



- **Roof slope** setting determines what polygons will be treated as walls and what as roofs
- **Write roofs** and **Write walls** settings control what will be written
- Systematic building naming:
  - Select text elements before you start **Export City Model** and set **Append selected text to file name** on

Save All in Change Texture Image

- **Save All** button saves wall texture rectified from all images into a sub folder
- Use image editing software to merge different parts of the wall from different images and then replace the original wall raster file

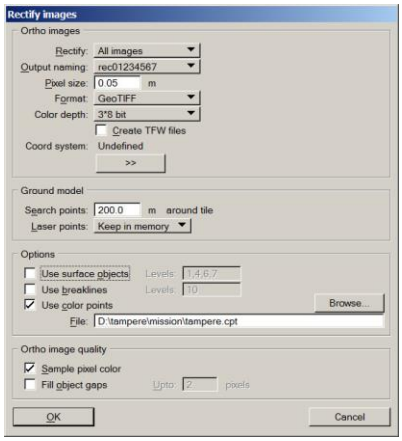
Various Improvements

- Support for POF 1.1 trajectory format
- Support for Topcon trajectory format
- Open color points allows user to select multiple files to read in
- Faster JPEG reading

- Ability to assign quality values to images in **Define color corrections**
  - Key-in command: Quality Set 3
    - sets quality 3 to selected images

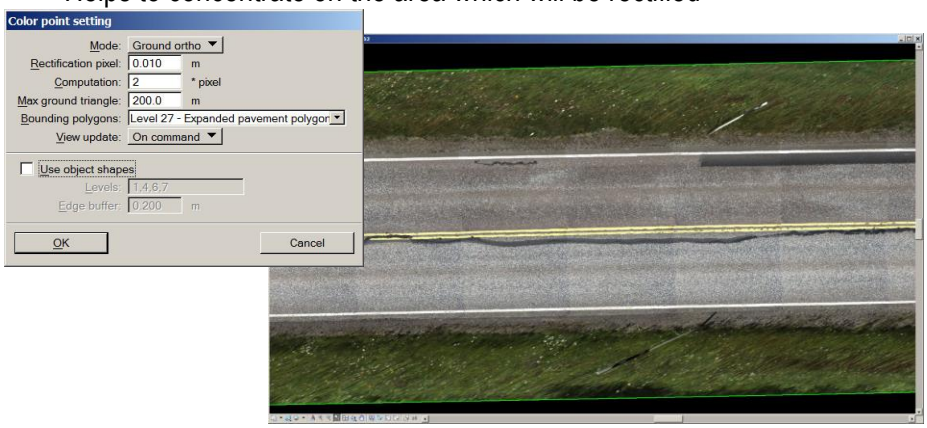
Utility / Rectify images & Color Points

- **Utility / Rectify images** can now use color points to adjust brightness and coloring of individual images



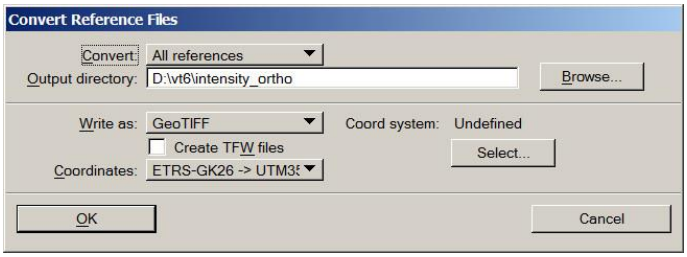
Bounding Polygons in Color Points

- **Define Color Points** supports bounding polygons limiting the area where to draw the ortho
- Helps to concentrate on the area which will be rectified



Reprojection of Raster References

- **Utility / Convert references** in **Manage Raster References** can perform projection change transformation from one projection system to another
- Original tiles will not remain as rectangles
- Computes new rectangle tiles and uses multiple references to fill each tile



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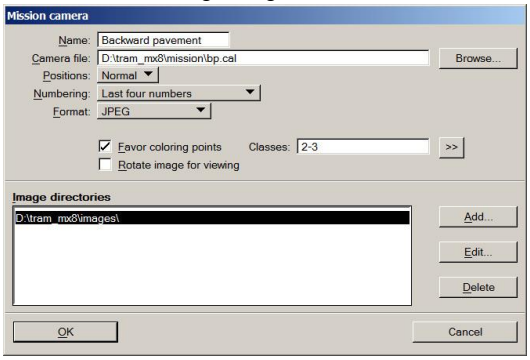
Favoring Cameras for Selected Classes

- Mission camera definition can specify that camera should be favored when coloring certain classes
- You can use this to avoid using forward and backward looking cameras to color same objects
- Forward and backward looking images often have drastically different brightness



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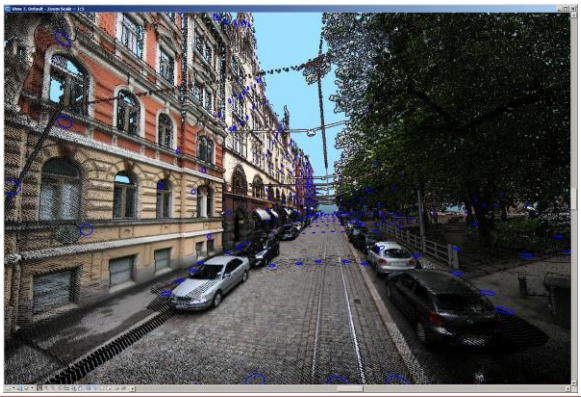
Point Cloud Mode in Color Points

- **Define color points** can work on point cloud in addition to TIN surface
- Possible to collect color points on 3D objects such as building walls
- Produce a colored point cloud without visible brightness differences at seamlines

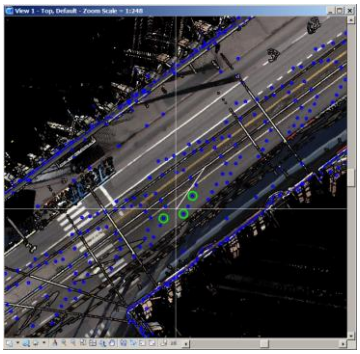


Mobile Color Point Workflow

- Set TerraScan project to store **Normal vector**, **Color** and **Image number**
- Run macro to compute normal vectors
- Run **Tools / Extract color from images** storing color and image numbers into project block files
- Start **Define color points** in **Point cloud** mode
- Run **File / Search points** to collect color points from project
- Load collect color points and filter bad ones
- Go through project blocks:
  - Open one block at a time
  - Check coloring of the points
  - Modify color points where necessary
  - Save laser points to store modified color values
  - Save color points

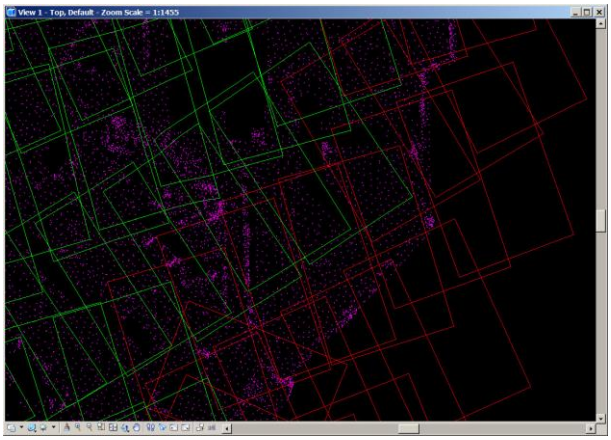
Color Point Improvements

- **Add** and **Delete / One point** show images used in a color point when selecting the color point to operate on
- **View / Correction points** menu command shows what image mouse location is colored from and what color points contribute to color correction
- User can choose to edit or delete one the color points



'Draw footprints' Improvement

- Tool will now draw footprints falling outside surface in red (or in blue) if coloring is by active color
- Important to know if footprint is not accurate if using those to check coverage

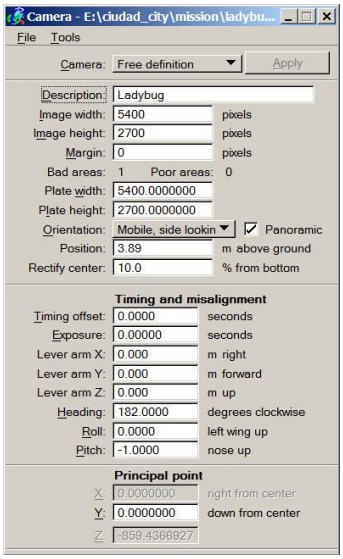


Deduce line numbers

- **Utility / Deduce line numbers** menu command assigns line numbers to images based on time stamps and trajectories
- Workflow:
  - Use **Manage Camera Trajectories** and set TerraScan trajectory directory as active
  - Select **Utility / Deduce line numbers**
- You can then use **Place Selection Shape** in point cloud mode and select images to use by line

Support for Panoramic Images

- First support for mobile panoramic 360 degree images

Support for Panoramic Images

- No lens distortion
- No focal point X
- Focal point Z computed automatically to match 360° field of view