Integrating the Geospatial Workplace

New Features in TerraMatch

GeoCue User Group Meeting
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Sacramento, CA
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Various Improvements

- Support for GPS standard time
- Support for **Apply** correction macro action
- Support for new TerraScan RAM point format
- Support for Fast Binary file format

- Compatibility with PowerMap and PowerCivil

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Tie line improvements

- **Position / Delete / By range** menu command
- **Position / Delete / By scanner** menu command

- Ability to enter elevation of ground level tie line observations in non top view windows

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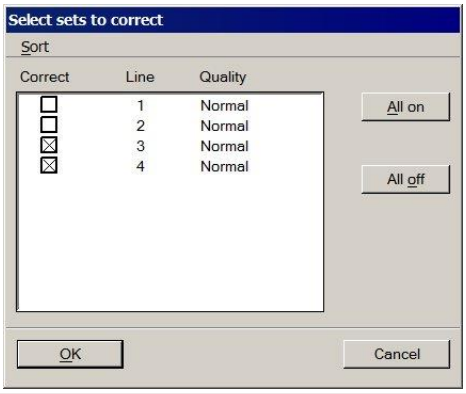
Select Sets in Find Tie Line Match

- Select which sets to move and which to keep fixed
  - Keep lines 1-2 fixed and solve correction for lines 3-4
  - Keep day 1 fixed and correct days 2 and 3
  - Solve correction for scanner 1 to match scanner 2



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Restore Observation Values

- Restores original observation values from a tie line file saved earlier
- Helps in filtering bad tie lines
- Workflow:
  1. Collect tie lines and save to a file
  2. Solve correction
  3. Apply correction to loaded tie lines
  4. Search for worst observations and remove bad ones
  5. Restore original observations from file saved in step 1
  6. Save filtered tie lines

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Apply Correction to Trajectories

- **Apply Correction** supports applying a correction to trajectories
- Corrections for trajectory drift should be applied to trajectories if planning to use trajectories further for any task requiring accuracy
  - Classify points by range from scanner
  - Classify obstructing objects too close to the railroad
  - Add lever arm to derive rail position

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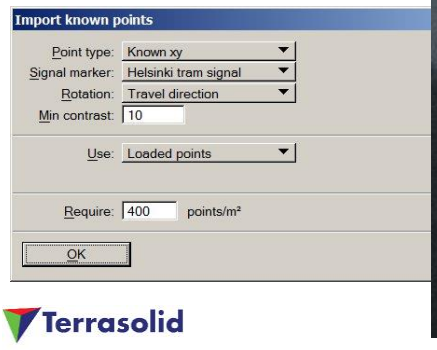
Automatic Search for Signal Markers

- Automatic search for known pattern control points
- Software finds location (and rotation) with biggest intensity difference between bright and dark polygons
- Rotation can be fixed or come from closest trajectory travel direction



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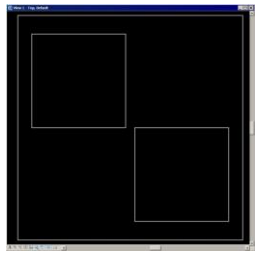
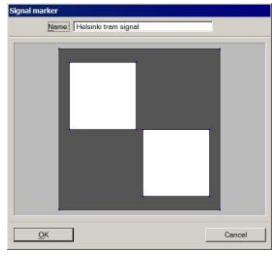
How to Define a Signal Marker

- Draw signal pattern in a top view window
- Draw polygons for bright areas
- Draw larger polygon for dark surrounding
- **Settings** tool and **Signal markers** category
- Select all polygons
- Select **Add**
- Click at location of the control point





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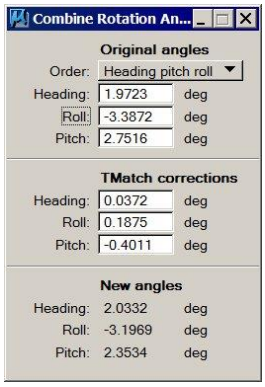
Combine Rotation Angles

- Currently key-in command "combine rotation angles"
- Combines system misalignment angles and TerraMatch corrections to derive new system misalignment angles