Geospatial Modeling & Visualization

A Method Store for Advanced Survey and Modeling Technologies

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Acquire External Control with Trimble 5700/5800

This page is a guide for acquiring external control for close range photogrammetry using Trimble survey grade GPS.

Hint: You can click on any image to see a larger version.

Prepare for Survey
Equipment Setup
Collecting Points
Data Processing

- 1. Begin metadata process
 - A. Choose a method for documenting the project (e.g. notebook, laptop)
 - B. Fill in known metadata items (e.g. project name, date of survey, site location, etc.)
 - C. Create a sketch map of the area (by hand or available GIS/maps)
- 2. Choose and prepare equipment
 - A. Decide what equipment will best suite the project
 - B. Test equipment for proper functioning and charge/replace batteries
 - 1. Base station
 - A. Setup and level the fixed height tripod over the point of your choice
 - B. Attach the yellow cable to the Zephyr antenna
 - C. Place the Zephyr antenna on top using the brass fixture and tighten screw
 - D. Attach the yellow cable to the 5700 receiver
 - E. Attach the external battery to the 5700 receiver (if using)
 - F. Attach the data cable to the TSCe Controller and turn the controller on
 - G. Create a new file and begin the survey
 - H. Disconnect TSCe Controller



2. Rover

- A. Put two batteries in the 5800
- B. Attach the 5800 to the bipod
- C. Attach TSCe Controller to bipod using controller mount
- D. Connect data cable to 5800 and TSCe Controller
- E. Turn on the 5800 and controller
- F. Create a new project file (to be used all day)

- A. As you collect points, follow ADS standards
- 2. Base station
 - A. Once started, the base station will continually collect positions until stopped
 - B. When you're ready to stop it, connect the TSCe controller to the receiver and end the survey
- 3. Rove
 - A. When you arrive at a point you want to record, set the bipod up and level it over the point
 - B. Using the controller, create a new point and name it
 - C. Start collecting positions for the point and let it continue for the appropriate amount of time
 - D. Stop collection when time is reached and move to next position
- 1. Have documentation materials ready
 - A. As you process the data, follow ADS standards
- 2. Transfer data
 - A. Use Trimble Geomatics Office (TGO) to transfer data files from the TSCe Controller and the 5700 receiver to the computer
- 3. Calculate baselines
 - A. Use TGO to calculate baselines between base station and rover points
 - B. Apply adjustment and export points

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