

Riegl TLS Field Operation Manual and Workflow

786 Chris Crosby January 31, 2014 [RIEGL](#), [Technical How-To](#) 4599

1. Field Set Up
2. Scanner Set Up
3. RiScan Pro – Pre-Scan Set Up
4. Scan Position Set Up
5. Collecting Data
6. Finding and Fine-Scanning Tie Points
7. Shutting Down and Moving Scanner
8. Scan Registration
9. High Resolution-Area of Interest Scan
10. Tie Point Convergence Inspection (trouble shooting)
11. General Trouble Shooting in the Field

12. End of the Day Wrap-Up

13. Appendix A: GPS

14. Appendix B: Schematic for Battery Connection in Series

15. Appendix C: Visualizing Merged Scans

16. Appendix D: Georeferencing Point Clouds

17. Appendix E: Colorizing and Aligning Scans with Digital Photos

This manual was developed by UNAVCO staff to document our best-practices for Riegl terrestrial laser scanner field operation, data collection, and initial data processing. This document is for a tie-point based workflow, using the Riegl VZ400 (but should also be largely applicable to the Z620 and VZ1000 scanners as well).

This document should be detailed enough to guide a user through the standard data collection workflow, and we recommend it as a resource for UNAVCO community members working with UNAVCO Riegl scanners.

[Riegl TLS Field Operation Manual and Workflow \(PDF\)](#)

Sections:

1. Field Set Up

2. Scanner Set Up

3. RiScan Pro – Pre-Scan Set Up
4. Scan Position Set Up
5. Collecting Data
6. Finding and Fine-Scanning Tie Points
7. Shutting Down and Moving Scanner
8. Scan Registration
9. High Resolution-Area of Interest Scan
10. Tie Point Convergence Inspection (trouble shooting)
11. General Trouble Shooting in the Field
12. End of the Day Wrap-Up
13. Appendix A: GPS
14. Appendix B: Schematic for Battery Connection in Series

15. Appendix C: Visualizing Merged Scans

16. Appendix D: Georeferencing Point Clouds

17. Appendix E: Colorizing and Aligning Scans with Digital Photos

Online URL: <https://kb.unavco.org/article/riegl-tls-field-operation-manual-and-workflow-786.html>