

Initial GNSS Tablet Training

START	TOPIC
8:00	Introductions/Agenda Review
8:15	GPS Theory & Coordinate System Basics
9:15	Surveying or Inspecting?
9:45	BREAK (15 min)
10:00	Equipment Overview – Tablet handout – Operation Rules
10:30	FieldGenius Creating a Project and adding Data
11:30	FieldGenius GNSS/ORGN Setup
12:00	LUNCH (60 min)
13:00	Field Genius Staking/Data Collection Intro
13:30	Equipment setup GNSS/ORGN connect
13:45	Field Exercise #1 – Stake/Check known point
14:15	Field Exercise #2 – Data Collection
14:45	Back to the classroom/Break/Re-group
15:00	Equipment setup on the Rod
15:15	Field Exercise #1 – Stake/Check known point
15:20	Field Exercise #2 – Data Collection
15:40	Field Exercise #3 – Check and alignment – Find Station and Offset
16:00	Field Exercise #4 – Check a surface model – Find Cut/Fill
16:15	Field Exercise #5 – Work with a .dxf file – Find a CAD feature
16:30	Equipment Check-out
17:00	END OF THE DAY

Instructor Directions – Extended Outline

Introductions/Agenda Review

- Instructor intro
- Super-fast class intro – Ask: Have you used GPS? Have you surveyed in the past?
- Cover the agenda and days plan

GPS Theory & Coordinate System Basics

- Cover basic GPS theory and how it works
- Draw the base/rover picture with the ‘corrector’ being sent and positions moving
- Discuss why we need coordinate systems and datums to take 3D to 2D paper/plans/computer screen
- Show how it all ties together – Start big, work your way down to the point on the plan set

Surveying or Inspecting?

- I’m not here to make you a surveyor!
- Discuss what licensed surveyors can measure – what everyone else can measure
- Tools are here to help do regular job – not add to duties

BREAK (15 min)

Equipment Overview – Tablet handout – Operation Rules

- Pass out equipment
- Cover the basics, what is in the box
- Keep it clean, dry it off when you are done
- Charge the batteries, etc.

FieldGenius Creating a Project and adding Data

- Power up the tablets
- Walk them through opening FieldGenius
- Start building a new project
- Add reference data

FieldGenius GNSS/ORGN Setup

- Work through connecting equipment and checking settings
- Discuss need for internet connection
- Show the errors you get if you are missing something

LUNCH (60 min)

- Phew – take a break!

Field Genius Staking/Data Collection Intro

- Cover data collection basics
- Discuss staking – not actually pounding hubs, but going to a known point
- Show how to make points, lines, areas
- All based on points! Collect data – get a point!

Equipment setup GNSS/ORGN connect

- Physically setup the equipment to go to work in the handheld mode
- Get internet setup and checked on the tablets

Field Exercise #1 – Stake/Check known point

- Connect to the ORGN – check your accuracies values
- Find an check a known control point – repeat!

Field Exercise #2 – Data Collection

Collect data for a point, line, area

Back to the classroom

It will be obvious when all students have completed #1 & #2. They will start moving on to other exercises

Gathering together to discuss ideas, milling about, etc.

Circle them up and take them back to the classroom

Equipment setup on the Rod

Build the equipment out on the rod like a full survey rover

Field Exercise #1 – Stake/Check known point

Repeat #1 – notice how much faster they are the 2nd time

Field Exercise #2 – Data Collection

Repeat #2

Field Exercise #3 – Check and alignment – Find Station and Offset

Work with the alignment file, follow the CL, find a specific Station and Offset

Field Exercise #4 – Check a surface model – Find Cut/Fill

Stake out one or both of the surface models in the project and find your cut/fill at multiple locations

Field Exercise #5 – Work with a .dxf file – Find a CAD feature

Stake out one or more of the CAD features in the project

Equipment Check-out

It will be obvious when all students have completed all the tasks. Light bulbs will have gone off over heads, a-ha moments will have occurred.

Circle them up and take them back to the classroom

Sign out equipment to correct people.

Give any last tips

Thanks everyone!

END OF THE DAY

DONE! Go home and relax.