



FireFly Base Nav Server (BNS) Operator Training

(ION Part Number: 1019-010014)

Course Information

Course Description:

Students will receive academic instruction as well as perform practical hands-on training on a BNS system. Topics covered during the course include Survey Preparation, Survey Operation, Launching the BNS, Setting Project properties and Magnetic Variation, Managing Map Data, Export Layers, Configuring Crew Details. Students will Configure the Equipment, Define and Edit Vib Arrays, add vehicles and their Offsets, Create Exclusion and Hazard Buffers, Identify a Range, Load a Dynamic Template, Shoot from a Layout Plan, Save Blocks, Write Blocks and Hazards to Data stores, and Create a Zone. In-depth hands-on exercises utilizing a BNS will prepare the student for actual field operations. Successful completion is determined through a written test and demonstrated skills.

Prerequisites:

Adequate knowledge to properly operate a computer running Windows Server 2003. Previous experience in the operation of seismic measuring equipment is preferred.

Course Fee: \$2500.00 per person (see [Terms and Conditions](#))

Facility: Stafford, TX USA

Duration: 5 days

Scheduling: Please send request to training@iongeo.com



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Daily Modules for FireFly Base Nav Server (BNS) Operator Training

Day One

1. Introduction to the BNS & Theory of Operation

- Overview of BNS & ESRI ArcMap Application
- Survey Preparation Phases
 - Survey Data Import
 - Configuration
 - Data Preparation
 - Survey manipulation
- Survey Operation Phases
 - Pre-deployment
 - Deployment
 - Post-deployment

2. Launching BNS Software and Logon

- Launch BNS Application & Adjust the Database Settings
- Set the Project Properties (Coordinate System)
- Set the Magnetic Variation

3. BNS Map Manipulation and Configuration

- Add Map Data:
 - Add Feature (vector) Data
 - Load GeoTiff File
 - Load DEM File
 - Check & Reload the Layers
- Set the Height layer
- View, Add, Remove, and Customize Map View & Layers
- Store, Retrieve & Plot Maps



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4. Survey Design

- Overview of Survey Design
- Load the Survey Design
- Realign the Columns
- Import the Survey Design
- Export Layers to SPS, GeoTIFF, and Shapefile Formats

5. Crew Configuration

- Start Project Configuration Module
- Add Crew Details for Company, Personnel, Crew
- Assign Personnel to a Crew
- Set the Buffer and Corridor Width for a Crew
- Set the Task Boundaries

Day Two

1. Equipment Configuration

- Add a new Source/Receiver Definition
- Define & Edit the Vibe Array Geometry
- Add Vehicle and Battery Definitions

2. Exclusions and Hazards

- Overview of Hazards & Exclusions
- Define Feature Types
- Generate Exclusion/Hazards Buffers

3. Skidding

- Overview of Skidding
- Skid Points
 - Run the Skid Wizard
 - Skid Results
 - Skid Report
 - View a Stored Report

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- Reset Previously Skidded Points
 - Leave Previously Skidded Points
 - Reset All Points
 - Reset Specific Points
- Skid Points Manually
 - Import Points to a Zone
 - Select, Skid, and Kill point

4. Survey Configuration

- Overview of the Survey Configuration Phase
- Use Dynamic Templates to Plan the Shooting
- Layout from Shooting Plan
- Shooting from Layout Plan
- Create Blocks & Zones

Day Three

1. Document Control

- Overview of Document Control
- Organize Documents
 - View Stored Documents
 - Add a Category
 - Add a Document
 - Edit & Delete a Document
- Manipulate Document Groups
 - Edit Document Groups
 - Create a New Group
 - Create a New Group from an Existing Group
 - Add & Remove a Document from a Group
- View Document Users

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2. Pre-deployment of Crews

- Introduction to Pre-deployment of Crews
- Save Device Settings
- Create Work Instructions
 - Restrict to Area of Displayed Template Range
 - Open the Crew task List and select the Task Type
 - Assign & Save Points
- Assign Devices to Crews & Add an HSE Message
- Check Downloads
 - Monitor Downloads
 - Check Full Status of a Device
 - Check Datastore & Dismount USB Keys
- Export to Central

3. Post-deployment of Crews

- Introduction to Post-deployment of Crews
- Load Data from Datastore
- Import from Central
- Evaluate QC Results
 - View Task Results
 - Evaluate Laid Not to Spec Results
- Display Query Results
 - Add a Display Rule to a Set of Query Results
 - Select the Rule and Property Type
 - Specify How to Display the Results & Display Results
- Generate Reports
- Use the HSE Monitor
- Set the Time Period
- View the routes taken by Crews & Individual Vehicles
- View Track Info



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Day Four

1. Reports

- Introduction to Reports and Types of Reports in BNS
- Generate Various Types of Reports discussed

2. Hands-on using the BNS

- Layout FSU's using NavTool
- Take Shots with Vib Pro Simulator
- Troubleshoot any issues
- Pickup Units and Synchronize NavTools to BNS using Sync Monitor
- View Reports

Day Five

1. Additional Hands-on using BNS
2. Course Summary and Q&A
3. Final Exam
4. Course Evaluation



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1.1 Training

1.1.1 Definitions

1.1.1.1 One (1) “training day” means eight (8) hours of instruction time per student, including breaks.

1.1.1.2 One “unit” of training is equal to five (5) training days.

1.1.2 Terms and Conditions

1.1.2.1 The purchase of one (1) unit of training is equal to five (5) days of training for one (1) individual.

1.1.2.2 Training units may be used after delivery of the system to Buyer, but will expire one (1) year after system delivery.

1.1.2.3 Class size will be limited to a maximum of eight (8) students and require a minimum of four (4) students unless otherwise agreed to in writing by Buyer and Seller.

1.1.2.4 The training location will be agreed to by Buyer and Seller. The training location is required to, at all times, meet reasonable health and safety conditions. If, in the instructor’s opinion, a location selected by the Buyer at any time fails to satisfy the above conditions, the instructor may postpone the class until such time that the location satisfies the above conditions.

1.1.2.5 The Buyer will be responsible for all travel related expenses (including but not limited to airfare, lodging, meals, and local transportation) of their personnel attending training at any ION facility unless agreed to in writing by Buyer and Seller.

1.1.2.6 If Buyer requests that training be made available at Buyer’s site, Buyer will be responsible for travel and lodging expenses for the Seller’s instructor. Buyer will also be responsible for portal-to-portal charges and wage expenses for Seller’s instructor if travel is required outside of the standard ION workday and workweek.

1.1.2.7 Seller’s training classes delivered at the Buyer’s site will be performed at such times to conform to the standard ION workday and workweek unless agreed to in writing by Buyer and Seller. Buyer will be responsible for wage expenses for Seller’s instructor if training is required outside of the standard ION workday and workweek.

1.1.2.8 Training will be conducted in English. If a translator is required, the Buyer will be responsible for providing, at Buyer’s expense, a translator for the duration of the training.



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- 1.1.2.9 If buyer requests documentation in any language other than English, the Buyer will be responsible for all costs associated with the translation of said documentation.
- 1.1.2.10 Additional training days may be purchased from ION. The current price per training day as of 07/01/07 is \$500.00. This price is subject to change without prior notification.
- 1.1.2.11 Buyer has the right to cancel any confirmed class or attendance of any prior registered student up to ten (10) business days prior to class start date with no charge to Buyer. If Buyer cancels the confirmed class or attendance of any registered student within ten (10) days prior to class start date, Buyer will pay 50% of the standard course cost per seat cancelled in cash.
- 1.1.2.12 Seller has the right to cancel any confirmed class up to ten (10) business days prior to class start date with no charge to Seller. If Seller cancels a confirmed class within ten (10) business days or misses the confirmed class date, Seller will deliver the subsequent class at 50% of the standard course cost to Buyer. If Seller is forced to cancel a confirmed class for reasons outside of Seller's control, such as weather, acts of terrorism, labor disputes, emergencies, fire, laws or regulations, or other reasons, Seller may cancel any confirmed class at any time at no charge to Seller.