



FireFly CSC (Central Station Computer) Operator Training

(ION Part Number: 1019-010013)

Course Information

Course Description:

Students will receive instructor led academic training as well as perform practical hands-on activities. Topics covered during the course include working with Domain Views (CSC Map, CSC Spread Manager, Deployment Manager, Shot Manager, Field Station Unit) and Data Management. In-depth CSC instruction will include setting up a Prospect, initializing the Spread, preparing for Data Acquisition, and Shooting (Dynamite and Vibroseis). Hands-on exercises will be conducted using system simulators in conjunction with live operation of the CSC and associated ground electronics. 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 the Central Station Computer (CSC)

Day One

1. Introduction to the CSC & Getting Started

- Overview of CSC Architecture & Theory of Operations
 - Start FireFly Application
- Utilize Domain Views:
 - Access Domain Views
 - Perform Domain Tasks by Resizing, Selecting, Sorting, Refreshing, Filtering, Saving, and Searching Data
- CSC Tools:
 - Map View
 - Spread Manager
 - FSU Domain
 - Deployment Manager Domain
 - Shot Manager
 - FireFly Server

2. Operate the CSC

- Understand the CSC Workflow
- Phase 1: Set up Prospect
 - Setup Prospect for the First Time
 - View Survey Parameters
 - Activate the Prospect
- Phase 2: Initialize Spread
 - Discover FSUs
 - Deploy FSUs
 - Wake up FSUs
 - Power on Sensors

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- Phase 3: Prepare for Data Acquisition
 - Understand Steps Required to Acquire Data
 - Create a SAN
 - Build Source Controller Parameter Module
 - Build a Fleet Profile
 - Build Acquisition Module

Day Two

1. Operate the CSC (continued)

- Phase 3: Prepare for Data Acquisition (continued)
 - Build a Seismic Flow
 - Build Sweep Description
 - Send Parameters to Encoder & Decoder
 - Setup Source Aware
 - Ensure Spread Quality for Shooting
- Phase 4: Take a Shot
 - Understand Workflow Associated with Shooting
 - Understand the Types of Production and Shooting Modes
 - Add Source Points to the Shot Manager
 - Set Source Information
 - Take a Shot
 - Create Reports for Shots
 - Verify QC Display
 - Create a QC Display
- Shooting Scenarios with CSC
 - Create Dynamite Shooting Scenario
 - Create Vibroseis Shooting Scenario



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- Phase 5: Shut Down the CSC
 - Verify Sleep Group Parameters
 - End the Day
 - Undeploy Field Service Units
 - Save CSC Data

Day Three

2. Additional CSC Functions

- FireFly Client
 - Overview of Usage & Requirements
 - Start the FireFly Server
 - Start the FireFly Client
 - Functions Not Available to the FireFly Client
- Export Data
 - Export Prospect Data
 - Export FSU Data
 - Export Shot Logs
- Manage Prospects
 - Create, Activate, Close, and Delete Prospects
 - Create a Backup of a Prospect
 - Restore from a Backup of a Prospect
- CRU Logger
 - Start the CRU Logger
 - View CRU Messages
 - Change Log Settings
 - Control the CRU



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Day Four

1. Hands-on using the CSC
 - Layout FSUs using Navtool
 - Take Shots with Vib Pro Simulator
 - Troubleshoot any issues

Day Five

1. More Hands-on using CSC
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.