



FLIR Certified Maritime Integrator (FCMI)

The FLIR Certified Maritime Integrator (FCMI) course is a comprehensive training program for installing and maintaining FLIR Systems maritime thermal imaging cameras and integrating with other marine electronics.

FLIR Systems is the world's largest supplier of thermal imaging cameras that are used for a wide variety of applications. As a market-leader, we would like to share our product knowledge and technology expertise with our partners and other interested parties. Our training organization, the Infrared Training Center (ITC), is the world leader in the field of thermal imaging training. Our instructors are certified thermographers, and they contribute their experience in a wide range of thermal imaging fields.

Thermal imaging cameras: valuable instruments for maritime vessels

FLIR thermal imagers provide an important complement to other marine electronics and ordinary daylight cameras in overall video solutions. FLIR thermal imaging systems are often integrated with other third-party devices in maritime applications.

Modern maritime vessels are becoming more and more complex. Advanced marine electronics that were once used only on military or large commercial vessels are now commonly found on all types of craft. This includes radar, GPS, digital compasses, video security cameras and other sensors that can be geo-referenced and interconnected in "slew to cue" configurations. The need for security on many different types of vessels has created a demand for installation and integration of security equipment that is commonly found on land (CCTV for surveillance, access control for door locks, and so on).

FLIR Systems has developed a powerful solution to help to integrate thermal imaging cameras into maritime and security networks: Nexus. This architecture provides integrators with off-the-shelf components for integrating thermal cameras with maritime electronics, as well as a software environment for developing custom applications.

Hands-On Training

This course emphasizes hands-on training, taking students through installation, operation and troubleshooting of cameras and other equipment in the classroom. Depending on where and when the training is offered, participants may get to experience hands-on operation and



configuration of cameras and other equipment aboard a vessel on the water in the evening. Participants are encouraged to bring attire suitable to maritime environments.

Objective of the Training

The overall objective is to provide maritime integrators and distributors the knowledge required to install, configure, operate, and maintain FLIR Maritime solutions, and to integrate FLIR cameras with common marine electronics. The purpose of the training is to help FLIR Systems distributors and maritime integrators deploy Nexus solutions.

Certification

The course provides a comprehensive overview of the requirements for integrating thermal imagers in maritime environments. After completing the course and passing an examination at the end of each day, you will receive the “FLIR Certified Maritime Integrator” certificate.

Target Group

This course is intended for FLIR Distributors and Integrators who are involved with the integration, installation and support of FLIR thermal imaging solutions within the maritime market. To ensure a rewarding hands-on learning experience, the number of participants for each course is limited. Places are assigned on a “first come, first serve” basis.

Prerequisites

Prior to the training, participants need to have knowledge about maritime electronics, with prior NMEA certification preferred. Some knowledge of network communications and experience with the operation and installation of FLIR Systems thermal imaging cameras is helpful, but not required.

Duration

Each session consists of 2 days of training. The program is a mix of theoretical fundamentals combined with hands-on exercises. Participants will gain practical experience and confidence.

FCMI Program

Day 1: Maritime Thermal Imaging Overview

- Applications for Thermal Imaging Video Cameras in Maritime environments
- Overview of camera components and how they work
- Maritime electronics and systems review
- CCTV systems (video and other sensors) and video displays
- Survey of FLIR Maritime Thermal Cameras and components
- Installation of FLIR Systems thermal imaging cameras
- Integration Issues, IP integration
- Typical integration scenarios; interfacing with other sensors: radars, NMEA, and so on
- Factors that affect camera performance
- Description of the architecture and components of Nexus and FLIR Sensors Manager (FSM)
- Web Interface for camera operation and configuration
- Installation and a description of the functions of FSM
- Take control of sensors and monitor streaming video over the network

Day 2: Nexus Integration

- Integration with 3rd party Multi-Function Displays (MFD)
- Basic configuration of Nexus Server and other components
- Using Nexus servers, a small network will be installed and configured
- Mapping / Geo-referencing: calibrate a map, set-up a sensor with geo-reference information
- Recording video with a FLIR nDVR
- Display real time coverage on a map
- Advance configuration of Nexus Servers
- Nexus integration with other communication protocols
- Nexus Software Developers Kit (SDK)
- Configure Nexus Servers for “slew to cue” operations
- Serial communications and Pelco interface in a Nexus environment
- Tips & Tricks