



IVIEW-01

The Tool for Network Diagnostic Analysis, Performance Qualification and Commissioning Report Generation



The Challenge

The reliability and performance of the physical network layer in RS-485 and Optic Fibre networks is often viewed as an unknown with little internal detail available for analysis.

With the common topology of a class A redundant network, an intermittent network fault could be introduced into the system with its occurrence unrecorded due to insufficient monitoring. This unrecorded event could result in network anomalies that could be misinterpreted, resulting in incorrect fault diagnosis.

The Solution

The INS Technologies network analysis modules were derived from the need to isolate network faults and anomalies relating to the physical layer while introducing the ability for preventative maintenance.

The IVIEW Application tool was specifically developed to provide its users with the ability to rapidly recognise and diagnose physical errors on the network. The IVIEW software tool

is used in conjunction with the INS Technologies life safety modules to provide a single consolidated solution. The software application can be used independently when interrogating data files recovered from the INS Technologies network modules, or alternatively by connecting to the INS Technologies modules from a remote location.

The data files recovered from the INS Technologies modules are loaded into the application and decoded, with the diagnostic detail presented to the user in one of three formats, namely: Top Level network View, Node Analysis view and Event Record view with Report generation.

The tool and its diagnostics capability provide the user with the ability to record events, before, during and after each system maintenance exercise. These events can be presented in a report to provide an indication of the state and stability of the network by including detailed information captured either in a time period preceding the fault recovery or user-initiated reset.

The Graphical View

The IVIEW application provides for easy interpretation through basic topographical network views.

FEATURES

The IVIEW Application is available to the user in four versions:

- Top level network view. (IVIEW Lite Version)
 - Free
 - The INS Technologies Network Nodes are presented with fault mapping
 - The fault recovery originator/s are indicated
- Node Analysis view. (IVIEW Professional Version) – License per workstation
 - IVIEW Lite functionality plus full module.
 - Status and diagnostics support
 - Support for Digital Optical Monitoring (DOM) of all Optic Fibre transceivers
 - Graphical “Quick View” format of all the network data
 - Network data traffic preceding each Recovery Event is shown
- Event Record View with a Comprehensive Report Generation Option (IVIEW Ultimate Version) – License per workstation
 - Support for all IVIEW Lite and Pro features
 - All Event records are presented with network stability indicators in tabulated format
 - A comprehensive report including graphical detail for each recovery event
 - A “Live Monitoring” feature supports the network status to be viewed from a central station
- Optic Fibre Event Record View with a Comprehensive Report Generation Option (IVIEW FE Version) – License per workstation
 - Support for Digital Optical Monitoring (DOM) of all Optic Fibre transceivers
 - A graphical “Quick View” format of all the network data is presented with network stability indicators in tabulated format
 - A comprehensive report including graphical detail for each recovery event

Benefits

Use of the IVIEW Software Application along with the INS Technologies life-safety modules, offers the user many benefits beyond that of a pure diagnostic nature.

Immediate benefits available to the user:

- Efficient cable fault detection and diagnosis
- System stability monitoring
- Identification of failing components
- Support in commissioning (Firmware Version management, Wiring polarity verification, Network configuration
- monitoring e.g. double address indication, Signal attenuation monitoring – repeater requirements, System stability confirmation)
- Support in maintenance monitoring (Log of all physical network alterations)
- CIE watchdog/power recycle monitoring
- Early indication of intermittent fault on network cards
- Preventative maintenance opportunity through monitoring the system stability over multiple maintenance exercises.

IVIEW Application and Life-Safety Modules for Network Monitoring

The software supports the option of real time monitoring of the network physical layer. This feature requires INS Technologies modules to be installed at each network node for signal redundancy.

The IVIEW application can be connected to any of the INS Technologies modules via USB (v2.0), Bluetooth, WIFI, RS-485 or remotely using the RIM100E or RIM100G product range.

The interface is allocated to a dedicated communication port on a monitoring station (the device hosting the IVIEW application).

The IVIEW Software Application can support multiple instances and hence multiple rings for monitoring.

IVIEW Software Minimum Requirements

Operating System:	Windows 7 (64 bit), Windows 10 (64bit)
Hardware: Processor:	Intel Core2, 3GHz
Memory:	2048Mbytes (2GB)
Hard disk:	160GB