



A Rockwell Automation Company

El-Equip Inc. Mining and Mineral Processing

The Client:

El-Equip Inc. is a Sudbury, Canada based company which serves the mining communications industry. They specialize in the development of Leaky Feeder Communication systems and equipment. They also

specialize in custom software used to monitor these systems.

The Requirement:

El-Equip distributes a software package called Dtool 2.0 to display the data sent from the Multicom diagnostic amplifiers that they supply.

Dtool is a DOS based package, and due to comm port limitations cannot be used in Windows. This forces the mine to dedicate an entire workstation to running the diagnostics package. The Dtool package also gives only the basic diagnostic information, and must be interpreted by the user. Both of these limitations make Dtool unattractive to mine personnel. A new product would overcome these limitations.

This new product would be a Microsoft Windows ® based version of the Dtool software now in use. This software needs to be able to run in Microsoft Windows ® concurrently with other applications. The software must have the capability to create .CSV format log files for both amplifiers and boosters. The software must also allow remote troubleshooting from El-Equip's office in Sudbury.

The Design Solution:

Hinz developed a Microsoft Windows® based application to fulfill the monitoring and alarm handling requirements of the Multicom Leaky Feeder Communications System. The software package is called Sentinel 2.0. The software interfaces to the Multicom base station via an RS-232 port and runs concurrently with other Windows applications. The software is accessible from a remote PC using PC Anywhere®. Information regarding the health of each amplifier and booster in the system is logged to a Microsoft Access V2.0® database. This also would include Alarm information

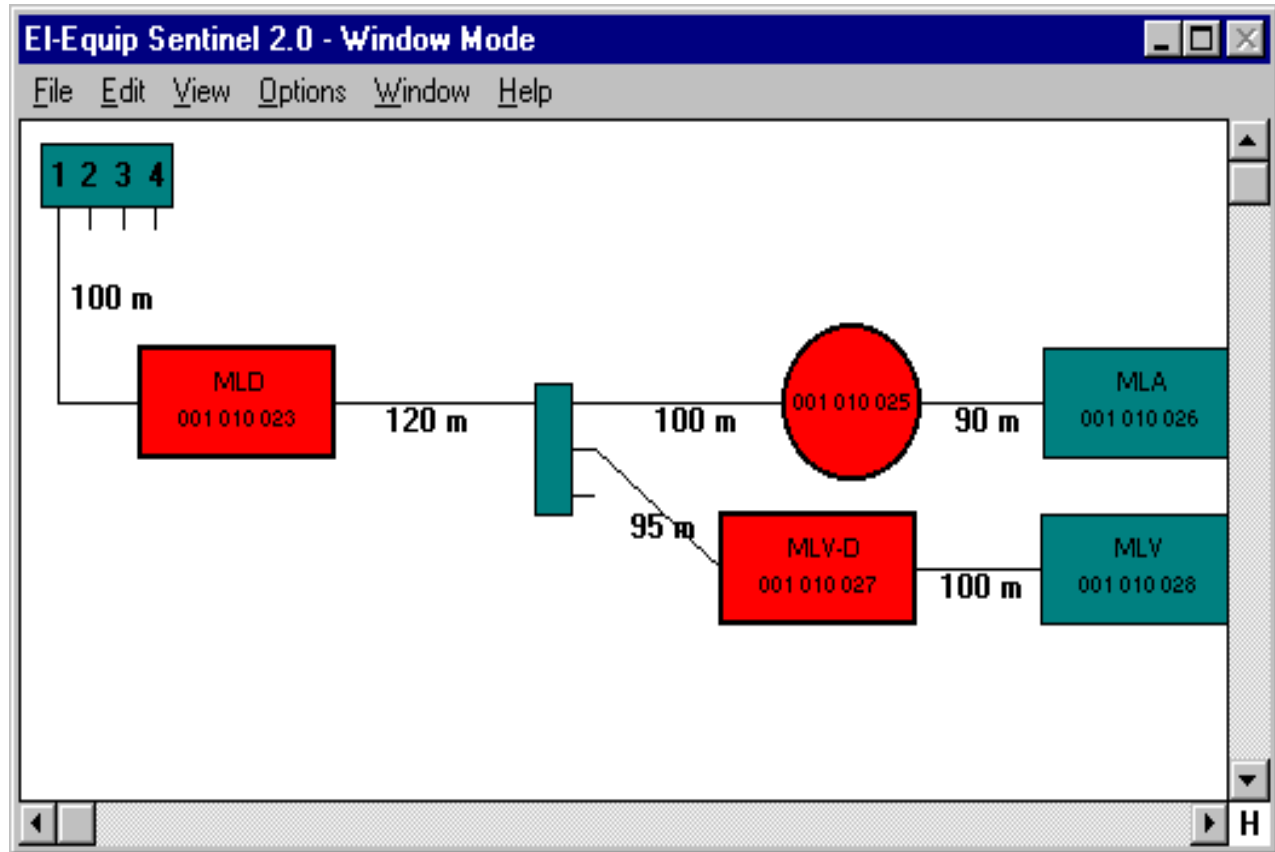
The operator can configure the system using standard menu commands. This permits the operator to add amplifiers, boosters, and splitters to the display easily.

These devices can be then dragged to new locations and dropped to configure the amplifier layout dynamically. The screen acts as a virtual window into the mine layout. Movement is possible using the scroll bars on the right side and the bottom. The amplifiers and boosters report back to the Sentinel 2.0 software via an RS-232 comm port. This information is logged to a database, and the screen display is updated. The devices on the screen will change to the selected alarm color and flash if the device is in alarm. Further information can be obtained by using the mouse, and right clicking on any device. This supplies device specific information.



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System Specifications:

- Written with Microsoft Visual Basic 4.0 ®
- Stand alone .EXE format
- Data stored in Microsoft Access V2.0 ® database

For further information or to contact a Hinz office near you, please check our website at:

www.hinz.com