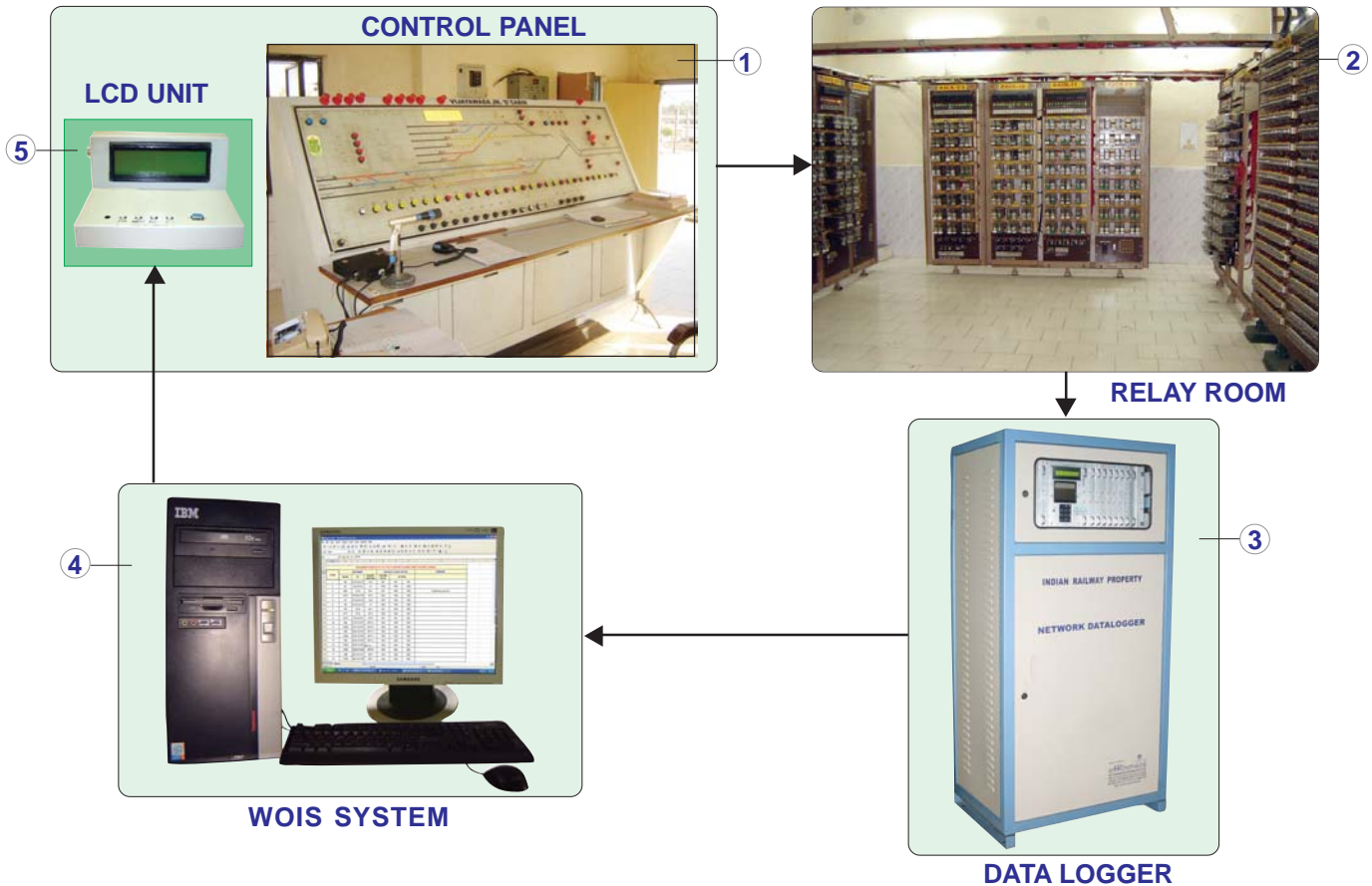


WOIS monitors indoor and outdoor signaling equipment failures and operational mistakes of Railway Signaling system. This system is capable of pinpointing unsafe conditions by validating each operation with reference to the intended safe design of the signaling system.

LCD unit at control panel alerts the panel operator of his wrong operations and through WOIS system technician can get the information about the equipment failures and the required maintenance. WOIS achieves this by monitoring signaling relays status through data acquisition device "DATA LOGGER" and processing the same with the customized software prepared for each signaling installation. The system gives on-line alert messages to the operator of the signaling system. The messages are conveyed in user friendly manner by using different color codes.



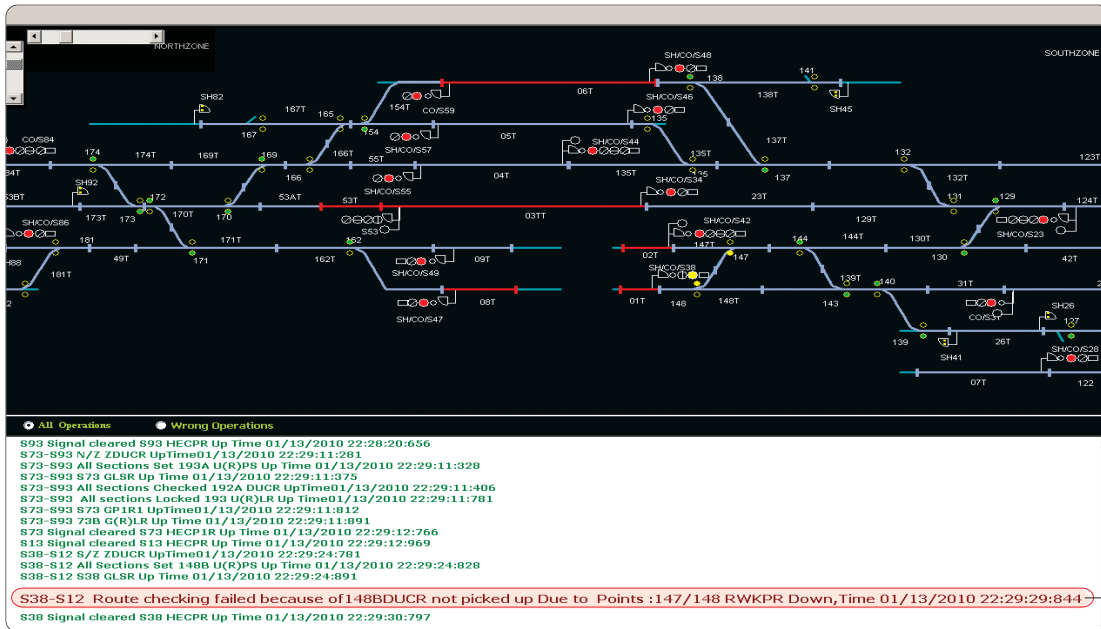
1. Signal is operated from control panel.
2. After control panel operation, corresponding relay changes their status
3. Data Logger captures relay status whenever their status is changed.
4. WOIS gets relay status from Data Logger for alarm generation.
5. LCD unit at Control panel alerts the panel operator of wrong operations.

BENIFITS & FEATURES

- ❖ On-line simulation displays Real-Time status of Yard.
- ❖ Identifies wrong operations of control panel operators.
- ❖ Monitors all signaling operations for finding failures and unsafe conditions—helps in curbing wrong operating practices.
- ❖ On line Alarm generation reduces accident occurrence probability.
- ❖ Monitors intensity of signaling equipment (like relays, point machines etc) usage to enable their condition assessment for timely replacement.
- ❖ Circuit condition validation for finding the root cause of any failure and unsafe conditions.
- ❖ Station data entry through user friendly Auto Entry Tool.
- ❖ Messages for wrong operations are sent to the panel operator and equipment failures with root cause made available to the maintenance personnel on real time.
- ❖ Periodical user selectable Report generation.

WRONG OPERATION INDICATION SYSTEM (WOIS)

On-Line Simulation is the replica of control panel where current status of Tracks, Signals and Points are visible. Through this user can easily identify the movements that are taking place in sequence and the status of Tracks, Signals and Points.



Failure Message

SYSTEM SPECIFICATION

- ❖ Data Logger
- ❖ Desktop Computer
 - OS-Windows XP professional or latest
 - Cache 4 MB
 - DVD-Combo Drive
 - Standard Keyboard
- ❖ NMDL software
 - Anti virus Software.
 - 2 GB RAM
 - 19" color TFT monitor
 - LAN 10 / 100 / 1000 with additional Gigabit
- ❖ LCD panel Unit
 - Intel Pentium core 2 duo 2.4GHz
 - 80 GB 7200rpm HDD
 - Optical Scroll Mouse
 - 3-serial, 4-USB, 1 parallel port

APPLICATIONS

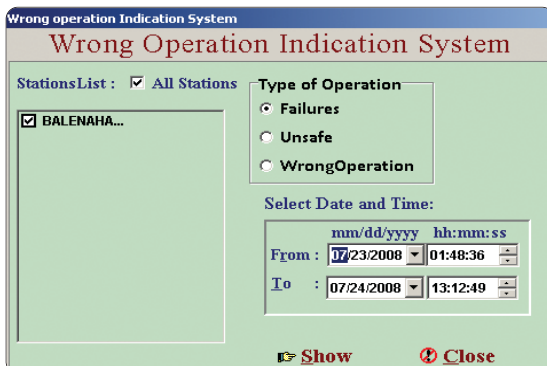
- ❖ Panel Interlocking
- ❖ Route Relay Interlocking
- ❖ Electro Mechanical Interlocking

REPORTS

User can create the data back-up file according to their own choice (ex. daily, weekly, monthly etc.) which helps in easy tracing of past data.

Reports are categorized into three types :

1. Failures – equipment failures.
2. Unsafe – unsafe conditions that arise out of relay misbehavior, wiring failures, cable faults etc.
3. Wrong operations – Premature release of buttons, trying for non permitted movements, non signaled movements etc.



WOIS FAILURES REPORT		
SNO	Occured Time	Comment
1	7/24/2009 01:48:36:609	1/C/31 JSLR Release ROV JSLR1 failed to not Picked Up 07/24/2009 01:48:36:609
2	7/24/2009 01:48:36:609	1/C/31 JSLR Release ROV JSLR1 failed to not Picked Up 07/24/2009 01:48:36:609
3	7/24/2009 01:48:36:609	2/32/32C JSLR Release ROV JSLR1 failed to Pick Up 07/24/2009 01:48:36:609
4	7/24/2009 01:48:36:609	30 JSLR Release 2/32/32C JSLR failed to not Picked Up 07/24/2009 01:48:36:609
5	7/24/2009 01:48:36:609	1A-A ASR Release 2/32/32C JSLR failed to Pick Up 07/24/2009 01:48:36:609
6	7/24/2009 01:48:36:609	1C-A Route 2/32/32C JSLR failed to not Picked Up 07/24/2009 01:48:36:609



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