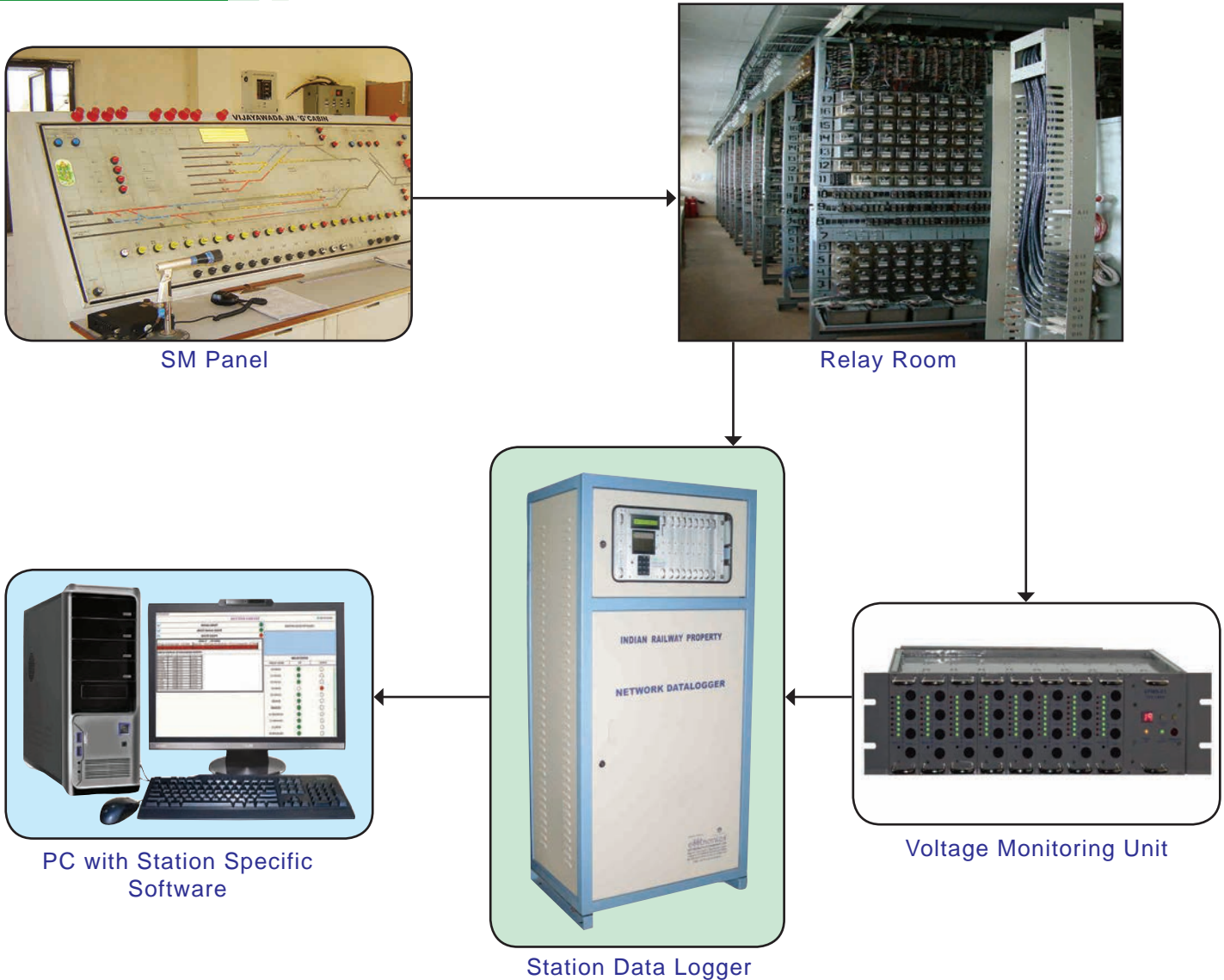


*RRI Diagnostic system monitors panel button circuit and relays' status and helps the technician in finding root cause of internal circuit failure and rectification. Softcopy of required circuit diagrams can be obtained with press of a button*

## ARCHITECTURE



## FUNCTIONS OF SOFTWARE

- ❖ Voltage monitoring unit monitors the voltage of button circuit at intermediate test points decided by railways. Availability / non-availability of voltage status at each test point is converted to digital data and given as input to station data logger through serial port.
- ❖ A PC connected to station data logger is loaded with diagnostic software specially developed. The failure of button circuit is declared by the software based on the circuit progress given by VMU.
- ❖ From the status of various relays monitored by station data logger; the software monitors the operation and progress of circuit based on the sequence of relay operation.

# RRI DIAGNOSTIC SYSTEM

❖ For further trouble shooting, the software provides the following information

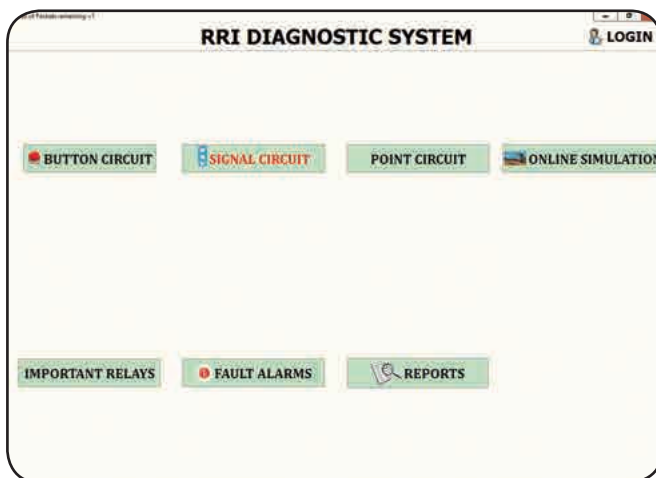
- Sequence of relays status [for the relays being monitored by data logger only] with time stamp.
- RELAYs which are not operated as per the sequence are shown in RED with its last operated time, relay location and its fuse location.
- Sheet number of circuit diagram for each relay.
- Softcopy of the circuit diagram.

## BENEFIT

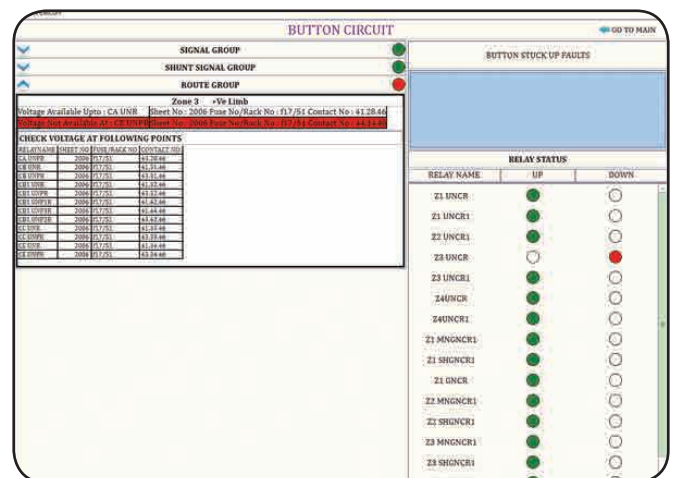
❖ Drastically reduces internal failure rectification time.

## FEATURES

- ❖ Circuit diagram opening from the failure location – ease of verification of wiring with circuit diagram.
- ❖ Relay sequence of all panel operations [successful and failed] are stored in the PC for easy analysis of circuit performance over a period of time.



RRI Diagnostic System Home screen



Button Circuit

RELAY NAME	REQUIRED STATUS	PRESENT STATUS	SHEET NO	FUSE NO/BACK NO.	REMARKS	TIME
59 CNP	UP	UP	1001	F17/24		21-08-15 16:50:02:390
R2 UNR	UP	UP	1050	F17/24		21-08-15 16:50:02:390
R2 UNCR	UP	UP	1059	F20/24		21-08-15 16:50:02:390
Z1 C2P1R	UP	UP	1101	F20/24		21-08-15 16:50:04:290
Z2 Z2UCP1R	UP	UP	1101	F20/24		21-08-15 16:50:05:290
Z3 UNCR	UP	DOWN	1185	F17/24		21-08-15 16:50:06:390
Z1 UNCR	UP	DOWN	1185	F17/24		21-08-15 16:50:07:390
Z2 UNCR	UP	DOWN	1221	F5/27		21-08-15 16:50:07:390
Z3 UNCR	UP	DOWN	1221	F5/27		21-08-15 16:50:07:390
Z1 UNCR	UP	DOWN	1225	F		21-08-15 16:50:07:390
Z2 UNCR	UP	DOWN	1319	F		21-08-15 16:50:07:390
Z3 UNCR	UP	DOWN	1449	F23/24		21-08-15 16:50:07:390

RELAY NAME	REQUIRED STATUS	STATUS	SHEET NO	FUSE NO	REMARKS	TIME
Z1 UNCR	UP	NA	NA	NA		
Z2 Z2UCP1R	UP	UP	1101	F20/24		21-08-15 16:50:05:390

Signal Circuit

RELAY NAME	REQUIRED STATUS	PRESENT STATUS	SHEET NO	FUSE NO/BACK NO.	REMARKS	TIME
2574 WNE	DOWN	DOWN	2009	F17/51		21-08-15 18:30:10:390
Z3 WYNE	DOWN	DOWN	2167	F14/51		21-08-15 18:30:12:390
Z3 UNCR1	UP	DOWN	2293	F		21-08-15 18:30:06:390

Point Circuit