

# Sentinel Battery Monitoring Systems

protecting your power supply



# Sentinel System Software - Link

- Permanent connection to multiple sites – unlimited total number of batteries
- Remote access via LAN/WAN
- Real time battery status – including discharge
- Alarm & activity log
- Automated data management
- Battery database for life trending
- Point & click report generation
- Multi-seat, multi-user
- Password access
- Standard Windows software



# Link Battery Management Software - Training

- Link has a Server-Client structure. The Server part is always running with PC, the Client part runs on user demand
  - Server handles all Sentinel comms, database, report generation etc. User does not see the Server
  - Client is simply the GUI – a window to the system. This is what the user sees
- Logging-In [from Client to Server] default admin/ADMIN
- Link is driven by primary buttons at left of screen. Four basic screens
- Essentially read-only
- Link has capability to connect to multiple sites simultaneously – so ensure the correct site is selected

# Viewing Alarms

- View any alarms raised at the Alarms screen, New tab.

The screenshot shows the Link Client software interface. The title bar reads "Link Client" and the menu bar includes "Connect", "View", "Configure", "Admin", and "Help". The main window is titled "Alarm Status" and has two tabs: "New" and "History". The "New" tab is active, showing a table of alarms. The "Alarm Status" icon in the left sidebar is circled in red. The "Details" panel on the right shows specific alarm information for a "Monoblock Variation" alarm.

Date	Sitename	Alarm Type	State
16-May-08 14:00:59	UPS 4 - Nelson St	No Comms Response	Critical
14-Jan-08 18:13:06	UPS 2 - Nelson St	String Voltage (Float) String 1: Low	Critical
14-Jan-08 15:02:22	UPS 3 - Nelson St	Monoblock Voltage (Float) String 1 MB 1:	Critical
14-Jan-08 18:40:39	UPS 3 - Nelson St	Monoblock Variation String 2: High	Deferred

**Details**

Date: 14-Jan-2008 18:40:39  
Type: Monoblock Variation  
Reading: High  
String N#: 2  
Min. Monoblock: 51  
Max. Monoblock: 57  
Limit (V): 0.6

**Alarm State History**

Logged	User	State
14-Jan-08 18:40:42		Critical
16-May-08 14:02:30	ADMIN	Deferred

ADMIN Critical Alarms: 4 No new report(s)

# Viewing Alarms

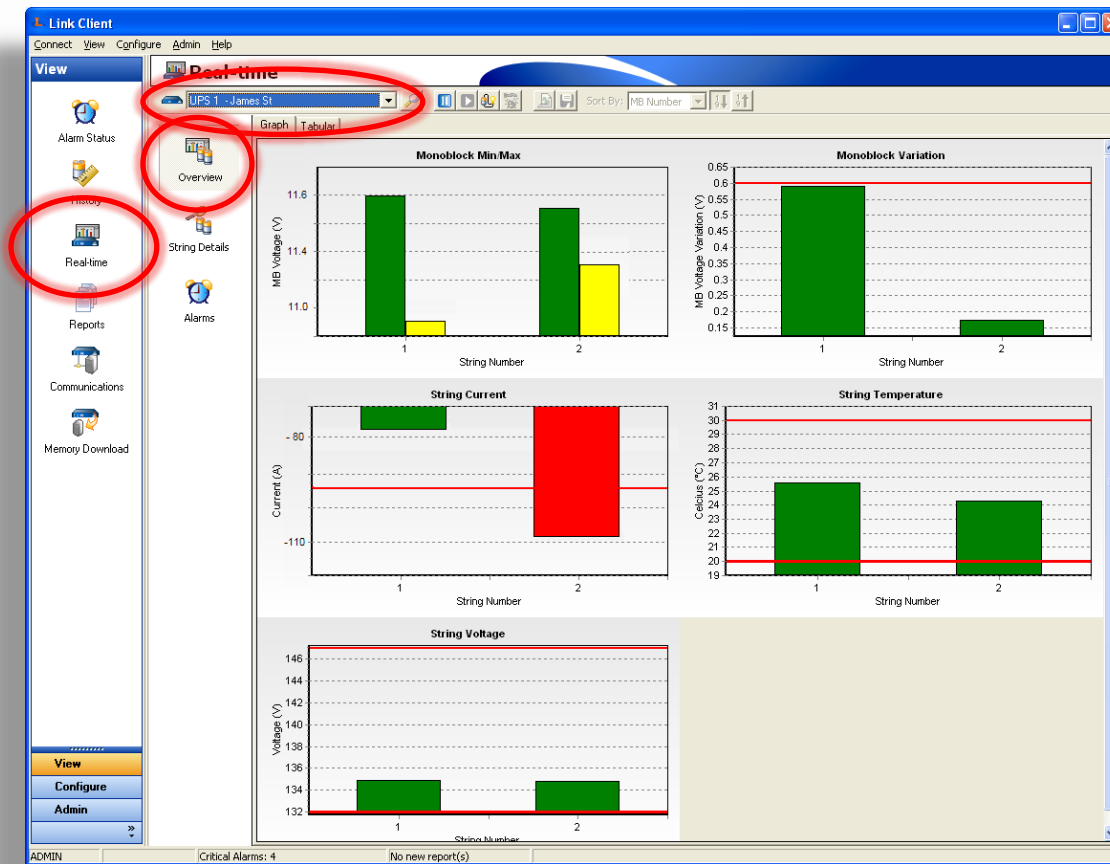
- Full detail for selected alarm shown at top right of screen
- Use the 'Clear' button to clear alarms. Select alarm & click button
- The 'New' tab should be kept clear of alarms – daily, weekly, monthly review
- Use the 'History' tab to search for old alarms

# Viewing Real Time Battery Data

- Real Time screen
  - Status Overview for summary of all strings
  - Detailed Status for detail of individual items
- Graphical and Tabular tabs
- Data updated live
- String Detail Report anytime – print/save buttons
- Alarm limits shown in red on graph.
- Items within limits are green, outside limits are red

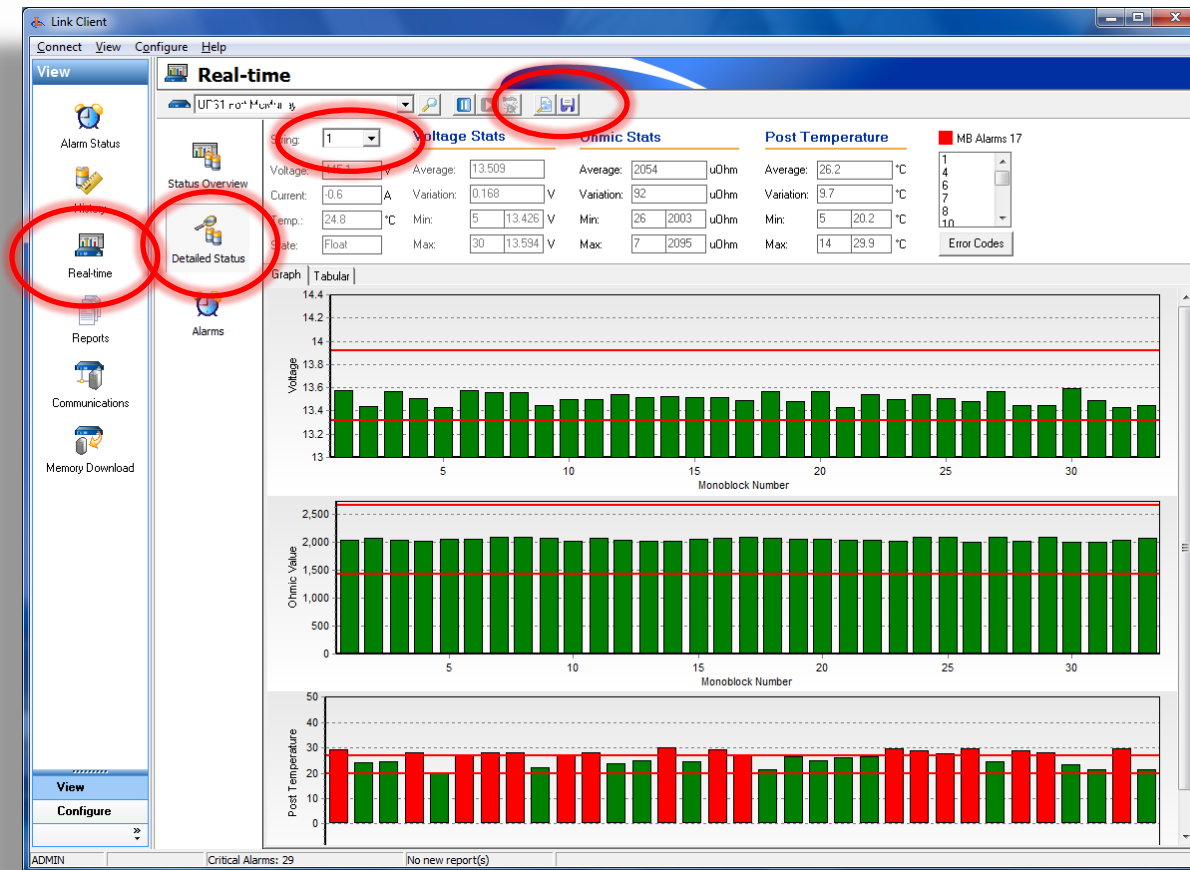
# Viewing Real Time Battery Data

- Status Overview, select the site name from the dropdown box



# Viewing Real Time Battery Data

- Detailed Status to view individual batteries



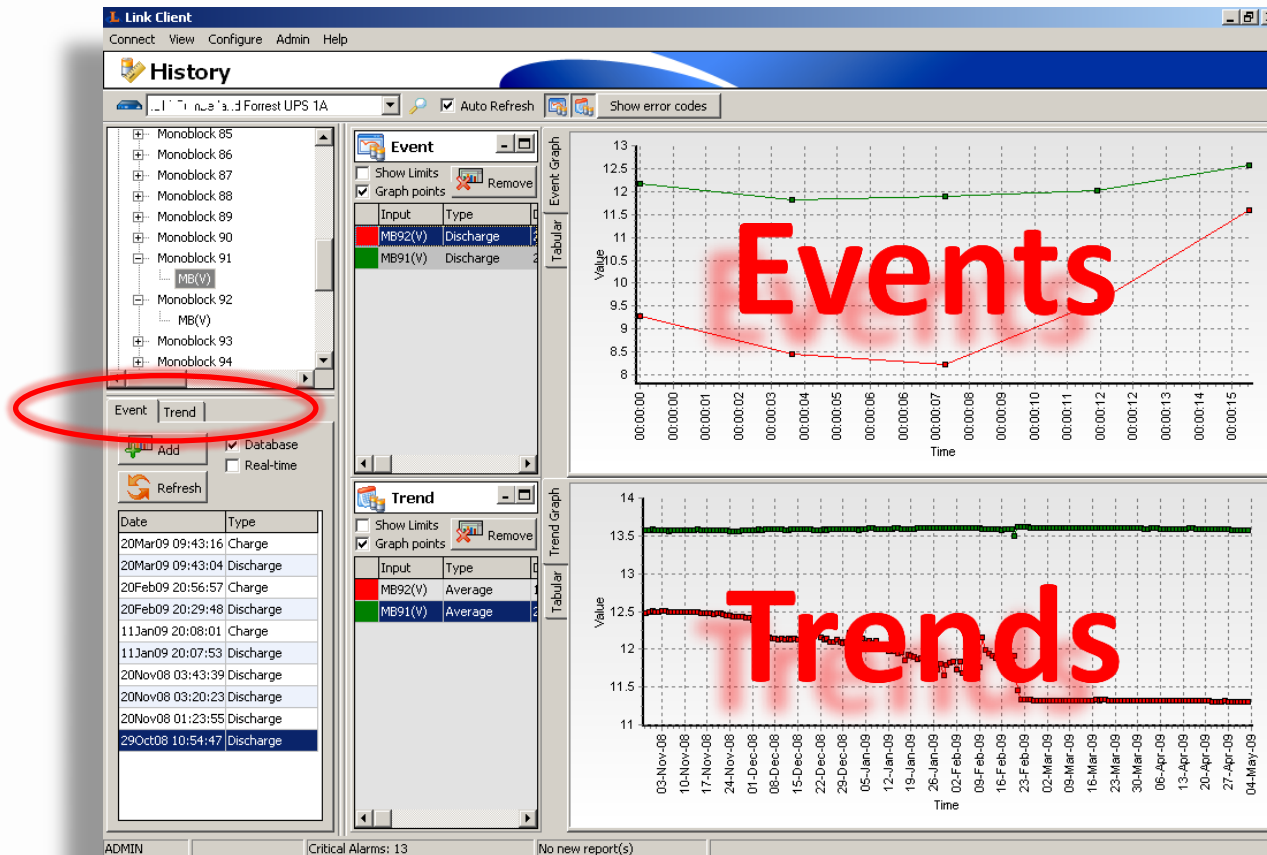


# Viewing Historic Battery Data

- History screen to view logged data
  - Event tab for discharges
  - Trend tab for life trends
- To graph discharge – Select site name, then item, Click Refresh, select discharge event, then click Add. Tick Real Time to view live discharges.
- To graph life trends – Select site name, then date range, click Refresh, then click Add.
- Right click on graph to print
- All data held in Link database on PC [except the real time discharge data which is still at Sentinel]

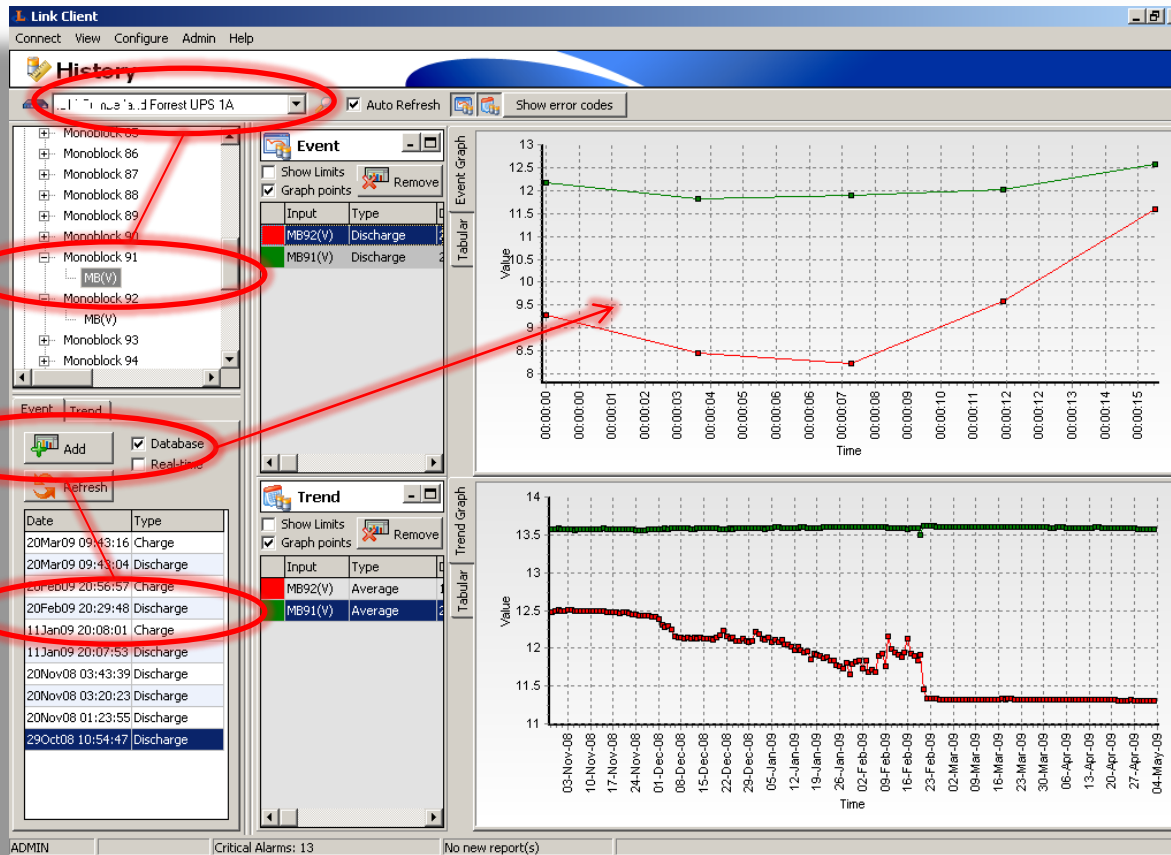
# Viewing Historic Battery Data

- History screen to view logged data



# Viewing Historic Battery Data

- Event tab to view logged discharge data



# Generating Reports

- Reports screen
- Five different reports depending on the information required – Discharge, Discharge Summary, String History, Ohmic Value, Single Monoblock
- Aimed at highlighting failures and exceptions
- Pre-formatted PDF, also raw CSV data
- Select the site name, select the report type, select the required parameters, click 'Generate the Report' button.
- Reports are generated from data within Link – ensure data fully downloaded from Sentinel before creating report.