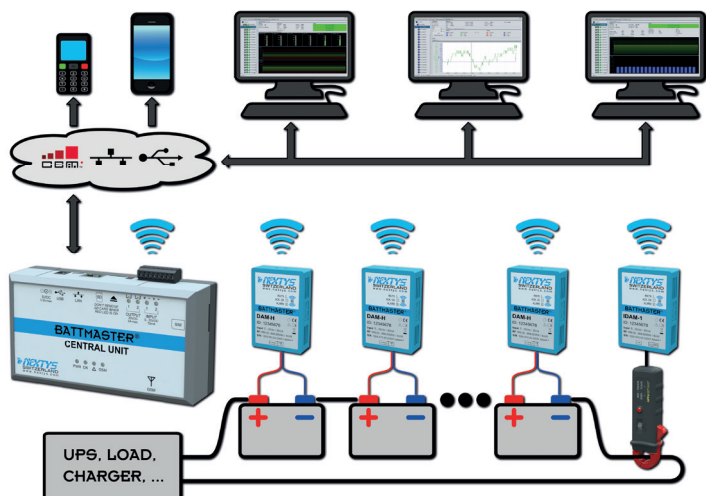# BATTMASTER®

Wireless Battery Monitoring System

BATTMASTER® is the first *wireless (license free)* battery monitoring system.

It can be used in various fields such as:
- **UPS**
- **TELECOM**
- **ELEVATORS**
- **CRITICAL BATTERY POWERED SYSTEMS**

Application examples:
- **protecting** mission critical systems
- evaluating **battery compliance** with the system
- evaluating **battery performance**
- **dimensioning new battery** based systems
- **supporting claims** related to system behavior

Major benefits:
- **installation, maintenance** and **operating** costs decrease
- control over the **battery operating conditions**
- **battery failure prediction**
- **system reliability**
- **allows** easy battery system's expansion

BATTMASTER® measures and stores **battery voltage, temperature, current** and **internal resistance** data for up to 1024 batteries/system. **User settable alarms** related to these parameters can be generated through E-Mail, LAN, SMS or dry contacts.
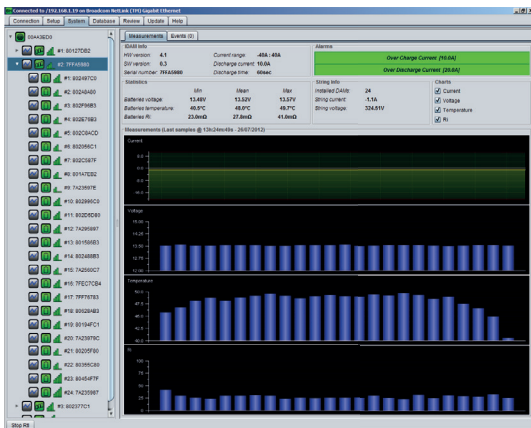
The **built-in clock** helps you to keep a precise history of the monitored parameters.

BATTMASTER® has a **good measurement precision** and **a complete, user-friendly database**. The recorded data (either on PC or on SD cards) can be easily transferred and processed as **spreadsheets or graphs**.
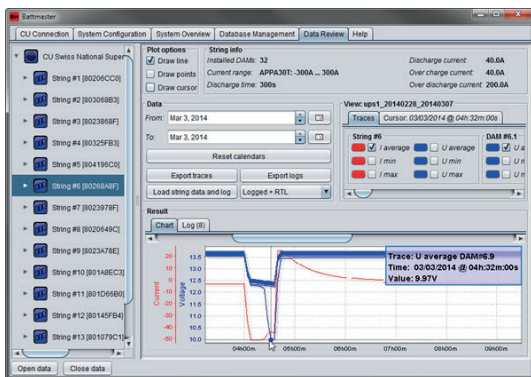
BATTMASTER® powerful application software (operating under **MS Windows®**) allows a precise analysis of the logged data and eases your decision making process.
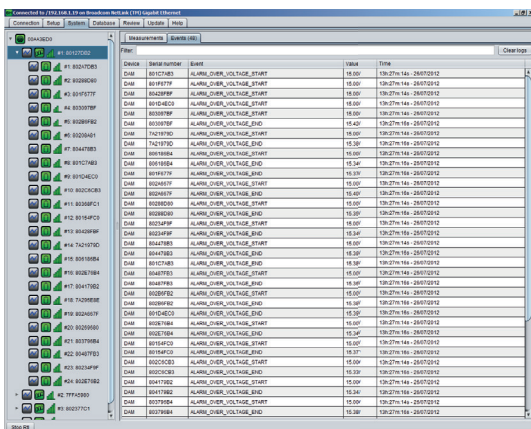
BATTMASTER®

YOUR LOYAL PARTNER!

System Status Screen

System History Screen

Alarm History Screen

System Components

- **Central Unit (CU) - 1 per system**
  - Wireless data collector unit
  - 100-240V power supply, backup batteries (~1.5h)
  - Supports up to 1024 DAMs and 64 IDAMs
  - Provided with 4GB SD card (about 5 years of logging)
  - 100BASE-TX Ethernet, full speed USB 2.0, Modbus/TCP
  - Embedded webserver for remote monitoring
  - Manages e-mail and SMS notifications
  - Stores user settable alarm thresholds

- **Data Acquisition Module (DAM) - 1 per battery**
  - Wireless voltage, temperature and internal resistance logger

- **Current Acquisition Module (IDAM) - 1 per string of batteries**
  - Wireless current and environmental temperature logger
  - Powered by battery or external power supply

- **BATTMASTER® software**
  - System configuration and monitoring
  - Database of events and measurements, data review
  - Real time system monitoring
  - Data export to .CSV or .PNG formats

Communication

- **Wireless** (license free frequency, proprietary network protocol) between (I)DAMs and CU, range 100m (open air)
- **USB, LAN** between CU and PC
- **GSM (Quad Band)** - for SMS notifications
- **Dry contacts** for monitoring system alarms
- **Isolated Digital Inputs** for external custom control

Monitored Battery Types

- 2...12V lead acid batteries (other chemistries on request)

Monitored Battery Parameters

- **Voltage** (measurement accuracy: ±1.5%)
- **Temperature** (-20...80°C, ±2°C)
- **Internal resistance** (1...300mΩ, ±10% or ±1mΩ)
- **Discharging cycles**
- **Current:** 300A range ±(2.4% +3A) / 600A range ±(4% +4A)
- **Battery operating time**

Redundancy

- 2 x NiMH rechargeable batteries for CU backup (~1.5h)
- (I)DAMs store measures and events in case of temporary communication failure

Mechanical

- **CU**: size 82x150x46mm, weight 250g, ABS enclosure
- **(I)DAM**: size 81x56x21mm, weight 40g, ABS enclosure, with VELCRO tape for fixing
- **Current Clamp**: size 185x55x40mm, weight 180g (300A)
  size 203x70x37mm, weight 230g (600A)

NEXTYS