

Boomerang Base System

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BRAD002

Description

The Boomerang system is designed to simplify quality assurance work by automating any kind of logging and monitoring of data, e.g. temperatures.

The Boomerang software is installed on a computer to collect data from remote locations. The communication between the computer and the remote measuring nodes can be wireless, hard wired or run via networks, depending on the specific case. The Boomerang system is flexible and can for example generate alarms, reports and history trends.

The system is developed according to GLP, GMP and FDA CFR21, which is necessary for meeting quality assurance requirements such as traceability and safety.

Using a ROQS module, the system is also able to provide automatic documentation and alerts for hygiene routines (HACCP).

The Boomerang base system (BRAD002) includes:

- Boomerang software
- Base Node Radio
- User Manual

To get a complete Boomerang system, it is necessary to add a Boomerang measuring node for each point in the environment that needs to be monitored, for example in refrigerators, freezers, or incubators.

Applications

- Hospital laboratories
- Blood banks
- Special clinics
- Biotech laboratories
- Food producers
- Restaurants
- Breweries
- Dairies
- Catering facilities

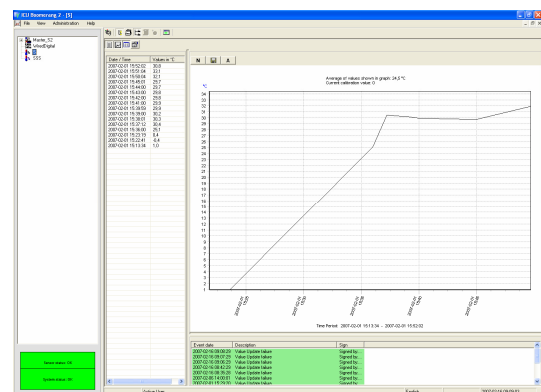
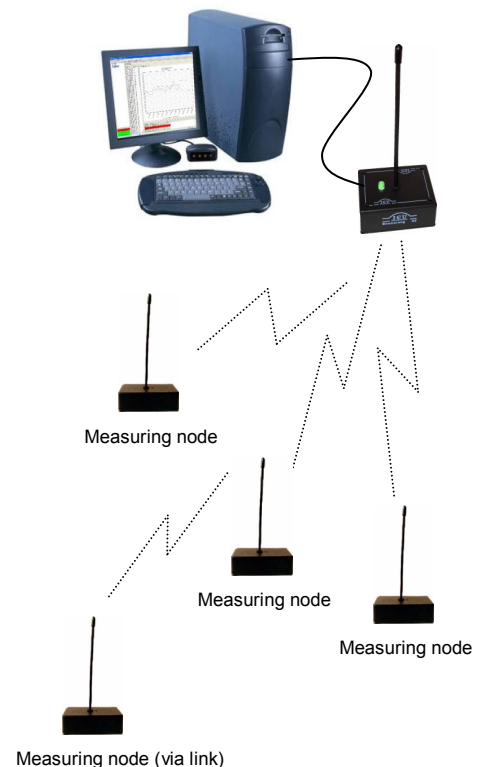
User Interface

The Boomerang interface is designed to provide data in a user-friendly way, making it easy to analyse data and to create reports. The main view can be configured to present data in different formats, such as graphs or list, to provide a useful status overview of for example sensors, alerts, and events.

Data Security and Traceability

The Boomerang system is a quality assurance system that provides full traceability of all gathered measurements. The logged values are stored in the Boomerang database, giving indication of time, system activity, and the user that performed the activity. Examples of system activities are deviations, alarm signatures, and calibrations. The data is encrypted and cannot be manipulated.

The system supports different levels of user rights, ranging from Viewer to Administrator. To sign off on activities a user is required to be registered with proper user ID and password.



Alarms and Notifications

The Boomerang system can be configured to alert users on deviations from pre-set limits.

Alerts are activated on deviation at sensor level and can be configured to be activated in escalation steps, such as alerting one user at a certain temperature level and at a higher temperature level another user is alerted.

An example: First warning on a refrigerator is at +6° C and alert user X. The escalated alert level is at +8° C and alert user Y.

Alerts can also be matched to working schedules, e.g. during office hours the alerts are directed to a different user than during after work hours when the alerts are sent to personnel that are on duty for the night.

The Boomerang system can be configured to alerting in several different ways, such as via e-mail, SMS, visual (LED) status display, and output relays that can be connected to for example sounds or light flashes.

Reports

It is easy to generate reports of logged values in Boomerang. The reports can be created to include any type of information chosen, e.g. information about sensors, control points, and time periods. There are many options of how the results can be presented, for example in graphs or in lists showing the complete log history. The reports can be printed or saved for example as Adobe PDFs.

As a help to create reports *The Boomerang wizard for generating reports* is guiding through all the necessary steps for getting an useful report.

Export

The Boomerang system provides a function to export data, should there be a need to analyse data using another software. The data can be sent to Microsoft Excel or as a text file ready to be implemented by another software.

Back-up

The Boomerang system can be configured to backing-up data automatically in accordance to the routines of your work activities, should they for example be daily, weekly, or monthly. It is also possible to initiate a manual back-up when it is required.

It is highly recommended that back-ups are stored locally on the computer where the Boomerang system is installed, but also that the back-ups are copied and stored elsewhere by the local IT department.

Installation

The Boomerang software is installed on computers running Microsoft Windows operating system. The installation is very easy, fast and flexible.

The most common installation is wireless, using wireless measuring nodes. The wireless installation is suitable for most environments. It eliminates the costs and other problems that wired systems causes.

The wireless range for the measuring nodes depends on the environment where the system is installed. Different kinds of walls and furniture affect the range differently. Usually, the range is estimated to 20-30 meters, which covers most needs. If a larger distance is required, the ICU proprietary communication protocol allows for making links that will achieve larger coverage.

The Boomerang system is able to operate via LAN (Local Area Network) through LAN adapters, which enables communication between buildings or over the Internet between local sites.

