

The MEDLOG Device Driver Library contains device drivers for all established manufacturers of medical devices. The following device types

Monitors

Monitoring systems

Anaesthetic devices

Devices for artificial respiration

Dialysis devices

Pumps

Pump systems (Fluid manager)

ECG devices

Nutrition pumps

Special devices (e. g. for CCO-measuring, liver dialysis or heart-lung-machine)

can be connected via MEDLOG system. Of course it is possible that certain device drivers are still lacking in the library. BMC will create new device drivers on demand.

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# MEDLOG White Paper



## DEVICE INTERFACE MANAGEMENT

- Medical device drivers
- Devices in anaesthetics and intensive care
- Independent medical device interface middleware

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## Connectivity - Wired / Wireless

All standard physical transmission technologies as RS232, RS485 or USB and ETHERNET are supported by MEDLOG.

The **MEDLOG device adaptor**, based on USB technology, provides further advantages. The adaptor with own CE-certification guarantees MPG-conformity along the guidelines for first class medical products.

Recent USB technology and its excellent qualities as a high-duty scalable data bus system can be used with an integrated RS232 to USB-converter.



Product- and manufacturer-dependent proprietary RS232 connections at the output of medical devices are standardised by the MEDLOG device adaptor.

The adequate device adaptors for devices are marked with stickers. The technical staff only has to choose the right MEDLOG device adaptor and fix it to the device for installation.

The **MEDLOG bluetooth adaptor** with identical features furthermore offers the possibility of wireless data transmission from and to medical devices. A standard bluetooth USB-stick acts as a data receiver.



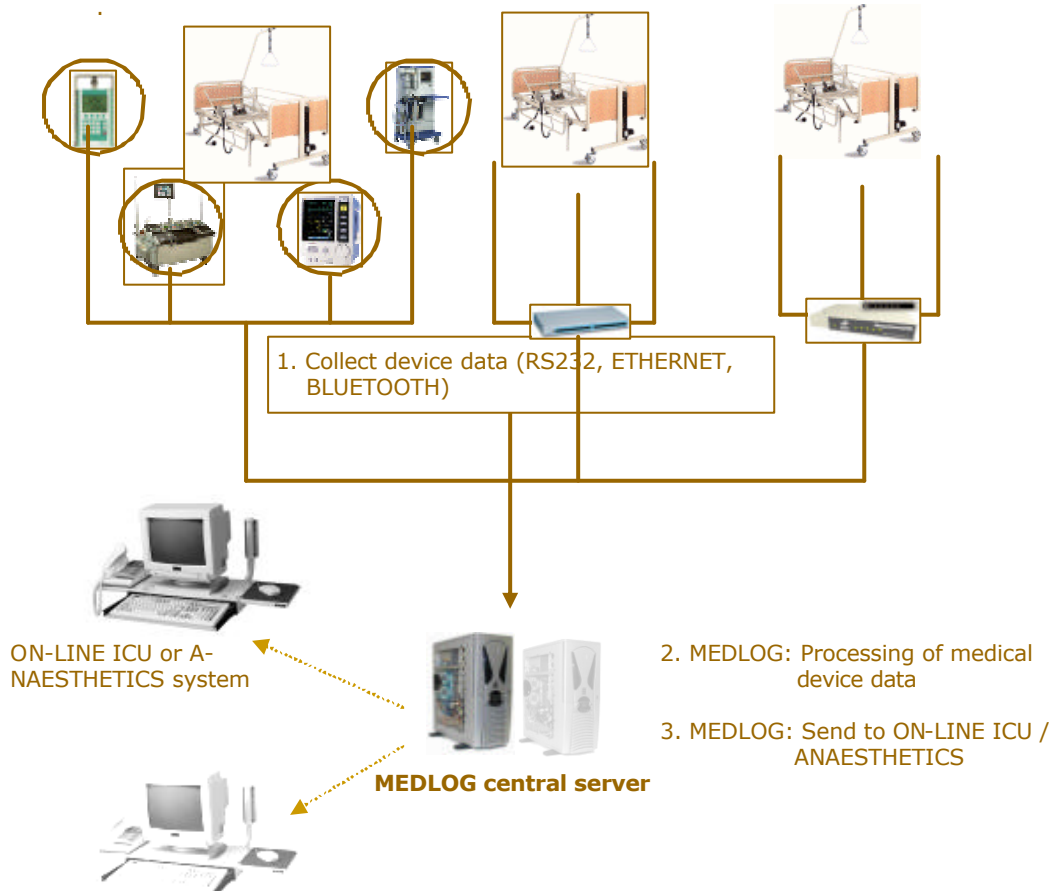
All wired and wireless data transmission routes except the TCP/IP-based ethernet protocol provide hot plugging within the MEDLOG system. With MEDLOG device or bluetooth adaptors hot plugging is convenient for doctors and nursing staff also in mobile use.



## System configurations (II)

### CENTRAL SERVER

Workstations' and beds' medical devices are bundled by so-called concentrators and, via network, directly gathered in the central server. On this central server the MEDLOG communication server is installed. It provides the collected device data to internal applications of clinical documentation.



### SUMMARY

MEDLOG is a platform-independent middleware which provides a safe and stable on-line data processing between medical devices and patient data management systems (PDMS) and documentation systems respectively.



The innovative communication server is based on latest software technologies and can be integrated in any IT-environment for clinical documentation. The system may be implemented in an existing documentation system with minimal effort.

With the implementation of MEDLOG the entire process environment provided by the medical devices can be automated. Lacking device connections of PDMS or medical information systems will be easily augmented with MEDLOG.



MEDLOG provides a safe and stable on-line data processing between medical devices and documentation systems hospital-wide.

### CONVINCING ADVANTAGES:

With BMC as a reliable partner for device-orientated interface management with MEDLOG you earn benefits you will be convinced of:

- **All medical devices** in the clinic can be connected on-line.
- Devices can be connected to **any** existing **applications for clinical documentation**.
- **Information gaps** are closed, **transparency** concerning data and costs is created.

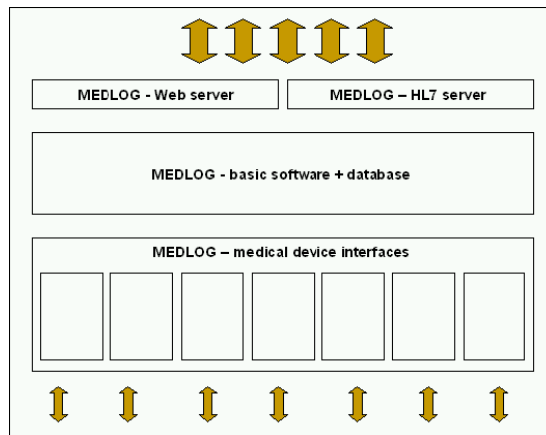
The clinic gets more **independent from its general contractor** and has the free choice in the purchase of medical devices from different manufacturers.

## Technical architecture

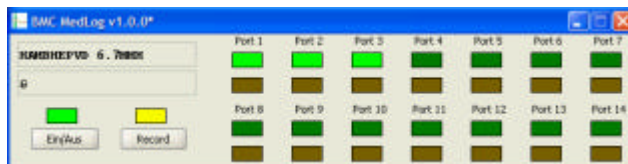
MEDLOG is a JAVA-based multicomponent system, its single applications can be shared within a client-server-system.

**MEDLOG – device driver library** is a library of medical device drivers. Each device driver establishes a stable physical data transmission to the particular medical device.

In the device driver data are processed, interpreted on physical and professional medical level and specific contents are filtered from the data.

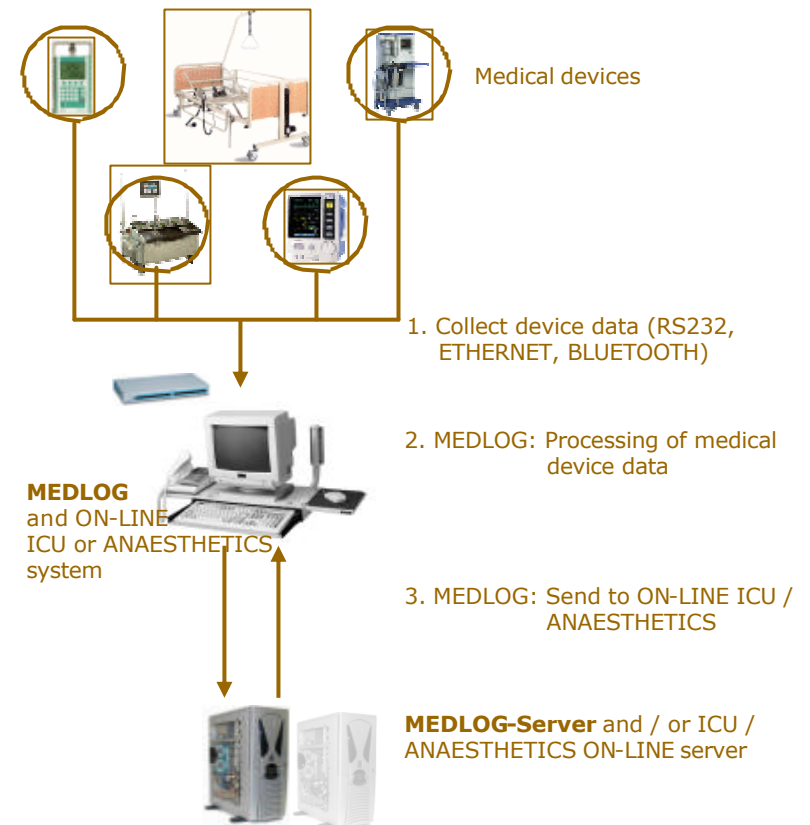


The **MEDLOG communication server** consists of one standardisation module which translates the device data into an overall understandable medical standard for parameters. The standardised device data can optionally be buffered to a MEDLOG-integrated database.



## WORKSTATION

The MEDLOG system is installed on the workstations. The collected device data are transmitted to the clinical server. From there the centrally collected data are shared with the bed applications.



Within the client-server environment of workstations several options to share the installation of MEDLOG components are available. This will lead to an optimal **fail-safe** and **load-sharing**.

