

# CENTRAL CONTROL FOR THE OR



## Key Benefits

- » Image routing using Video-over-IP
- » Integration of patient-based software by NUCLeUS™
- » Room control with a central Bender control panel
- » Existing control panel can be used

The management of patient and room-related data and images in today's operating rooms is a challenge.

NUCLeUS™ is an image routing system. It manages the distribution of image information from various patient-related systems to the different screens that are installed in the operating theater.

Bender develops integrated wall consoles in the operating theater. The control panels combine information used for electrical and climate monitoring of the room. The systems are 100% custom-designed in collaboration with all concerned parties.

Combining NUCLeUS™ and a Bender panel has great advantages: circulating nurses in the operating room have a single point of control for both the room settings as the settings for the patient.

## Your advantages:

- » **Hygienic central control**
  - The easiest image management system on the market: NUCLeUS™
  - The combined working of Bender / NUCLeUS™ is fully tested and certified
  - Antibacterial membrane surface for optimal cleanability
- » **Guarantee of operation through redundancy and failover mechanisms**
  - Ability to duplicate image routing through NUCLeUS™ to sterile zone
  - Active indication if system components fail
  - The functionality of the various systems can be guaranteed for the life of the integrated control panel. All hardware, including touch screen systems, are manufactured in house
- » **Smart combination of hard- and software**

Hardware	Software
Dedicated to specific functions	Upgradable
The function of the button is easy to teach	Learning NUCLeUS™ is easy
Static content	Dynamic content
The modular system is expandable over a large surface area of the touch panel	Linked to the size of the screen
Future expansion is room specific	Future expansion is linked to eNSOR™ - modules. Your system offers more functionalities over time.

- Combination of dynamic patient systems and static room systems
  - Very easy to use
- » **Modular and expandable**
  - Functions can be assigned to hardware buttons
  - Functional extensions can easily be implemented in the future, both on the control panel, and on the touch screen surface
  - Software has dynamic functionalities

## Overview functionalities

- » Integration with EPR and HIS systems
- » Image routing
- » Archiving of stills and videos
- » Control pan-tilt-zoom of the OR camera
- » DICOMising archive material
- » Broadcasting to other ORs
- » Microphone integration for bidirectional communication during broadcast
- » Web access with secure login for archive recordings
- » Web access with secure login for live broadcasting from the OR
- » Integration of MP3-players
- » Control operating table
- » Control of surgical lamps
- » Control of ambient light
- » Indication of room occupancy status and activation indicators such as X-ray, laser and on-air light
- » Monitoring of the isolated power system
- » OR door counter, linked with the OR use
- » Air quality display
- » Day-night status
- » Integration of all monitoring and NUCLeUS™ image routing in order to distribute (partial) information in the OR.
- » OR temperature display and control
- » OR pressure display and control
- » OR relative humidity display and control
- » Start / Stop procedure
- » Integration with BMS- systems

- NUCLeUS™ is a license based solution. You only invest the functionalities of your choice
- The image distribution system NUCLeUS™ is easy to install on an existing Bender control panel. This is possible without any loss of the current functionality!

