JST Product Overview

A summary of our products in a compact PDF file. We've provided the most important information, compressed into a few pages.

Product overview

ONLY AT JST

myGUI® platform „The Operator´s Interface"
ergonomic, stable, visually appealing

StratosX11® „The Operator's Desk"
ergonomic, stable, visually appealing

ONLY AT JST

JST myLogin® „The Operator's Security"
more flexibility with increased security

ONLY AT JST

CriticalAlert-Display with JST CockpitView®
also for connection of the individual work station

DisplayWall
large-format display systems for 24/7 continuous operation

ONLY AT JST

JST MultiStreaming® und MultiConsoling®
the real-time control centre

JST MultiStreaming® Split View
to display all system statuses

ONLY AT JST

PixelDetection® "The Operator's Eye´
event-controlled screen connection

NUR BEI JST

JST CockpitView® "The Operator's Dashboard"
space-saving computer splitting

JST MultiStreaming® remote dial-in
the cross-location connection

AllMedia Conference System

Supervisor Display
with CockpitView to display all system statuses

JST TacticTable® „Control The Situation"
with Touch Interaction and JST MultiStreaming® and MultiConsoling® interface

DisplayWall

THE OPERATOR'S TEAMVIEW

Monitor walls with seamless 24/7 LC displays and alarm function

Quality: Developed for 24/7 running in control rooms with S-PVA-Panel

Proactive: Interfaces for event-controlled alarm systems with PixelDetection®

Clear layout: Cause analysis and decision-making with "TeamView"

Operation: In real time with keyboard & mouse, right on the monitor wall

Event-controlled: The computers and cameras are switched on automatically in the event of alarms

Need more information?

Call us on

📞 **+49 4161 – 54044-0**

or visit our website: **www.jungmann.de**

JST DisplayWalls are the major players in your control room

A DisplayWall consists of several large LC displays or back-projection cubes that are installed on top of and next to each other. This creates a **large-format, interconnected image**. This "interruption-free" impression is made possible - depending on the display technology - by extra-slim frames with a strength of only 0.44 to 1.2 mm.

What makes JST DisplayWalls special is that they are **event-controlled**. The computers and cameras can thus be switched on automatically, without the intervention of the operator, and operated in real time. The operator talks here about the "Team-View", because now **the entire team has the same level of knowledge about the most important alarms**.

Seven good reasons for choosing JST DisplayWalls:

01 | Accurate display: The interconnections between different alarms are shown quickly and clearly because of the large display surface, large vertical and horizontal perspectives, perfect illumination using energy-saving LED background lighting a high pixel resolution.

02 | Durability: JST DisplayWalls are specially designed for continuous 24/7 running in control rooms. These are definitely not the kind of televisions that are used in private homes.

03 | Fast cause analysis and decision-making with "TeamView": The entire control room team is provided with the most important information at the same time. The DisplayWall can even be operated in parallel or alternately and in real time. It thus becomes a real extension of the workplace desktop. The result: substantially improved team work, giving faster reactions and fault elimination.

04 | Clear, structured, tidy: Consolidating a vast range of system, plant and danger situations means that monitoring and control can be more efficient. There is no need for superfluous workplace monitors. The operator can keep an eye on everything.

05 | JST DisplayWalls have interfaces to event-controlled alarm systems! That means: Showing the most important alarms at the required time, at the right place and in the most effective size. In this way, the DisplayWall becomes a reliable information hub, on which no alarm can be accidentally missed.

06 | Improved decision-making reliability: To be able to act even more quickly and on a constantly coordinated basis, further information about the alarms is automatically added as the situation requires. The various different alarms can also be correlated in all sorts of ways. Only JST offers this particular intelligence.

07 | Good design and functional added value: The DisplayWall can be supplemented with an attractive cover and the JST AlarmLight on request. In the event of a fault, the AlarmLight can flash red – depending on configuration – so that the entire team is notified immediately, especially in the event of critical alarms.
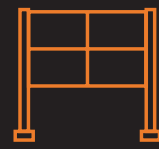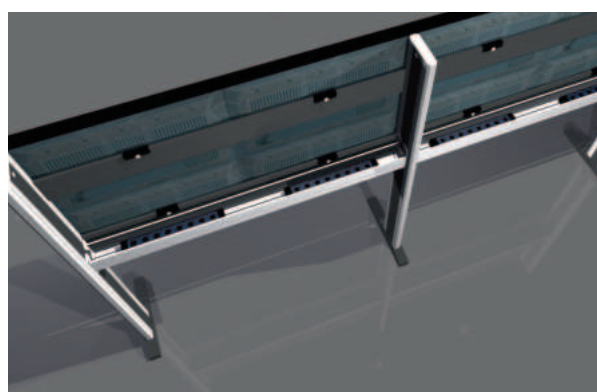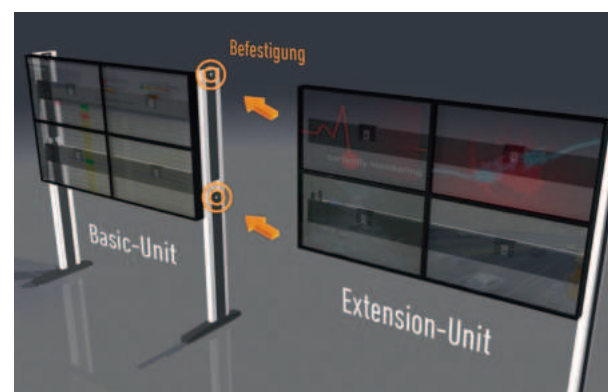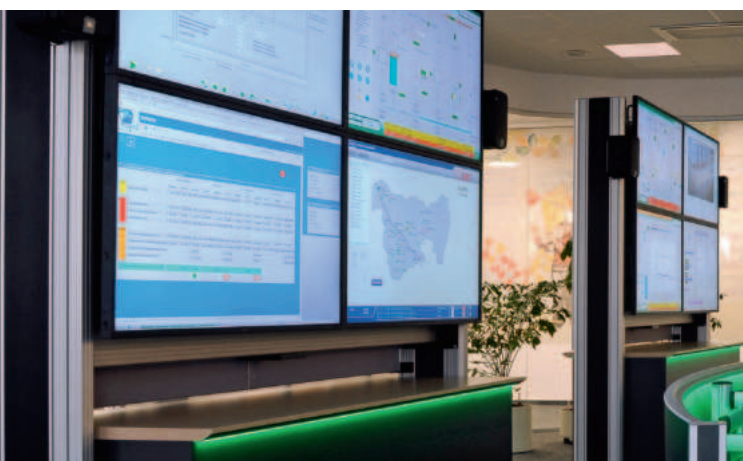
JST DisplayRack

Maybe you don't have a solid wall for mounting your large-format displays? Or maybe you'd like some flexibility when it comes to choosing your display sizes in the future? Then the free-standing JST DisplayRacks are the right choice for ou. The Basic Unit – consisting of two side elements – can be expanded by any number of Extension Units as required.

The many practical features of the DisplayRack include the precise adjustment capability. Screens can be freely adjusted with absolute precision, both in height and in width. The result: a visually perfect, uniform set of panel images. Other plus points include the provision of special aluminium cable ducting and the rollers "invisibly" integrated in the foot stabiliser which offer optimum service access and all the entire DisplayWall to be moved around freely.

Matching media boards with sliding doors providing space for technical installations or paper storage are available as an option.
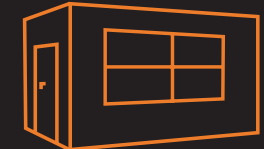
JST DisplayRack: Front and rear view with Basic Unit; the two side sections can be extended to the left and right with any number of Extension Units.

Foot stabiliser with integrated rollers: If necessary, the DisplayRack can be installed right in front of a wall and rolled straight forward for inspection.
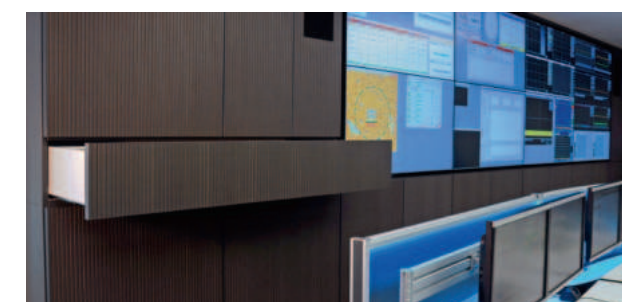
JST DisplayCover

The JST DisplayCover is a particularly visually appealing option for large-format technology concepts in the control room. With this room-in-room structure, the DisplayRacks described on the previous page form the basis for a solution that's both practical and well designed.

Alongside its attractive appearance, the JST DisplayCover combines a whole series of important functions for your control room: It keeps annoying fan noises and unwanted heat emissions away from the control station. In addition, the hardware located in the newly built technical room can not only be installed in perfectly fitting racks, but also be efficiently cooled. Even access for maintenance does not affect what happens in the control room.

The DisplayCover provides not only a cover with special acoustic material but also space for cabinet systems with different door variants and drawers.

The special brush seal between the large-format screen and the cover enable flush-fit closure. The additional choice of acoustic material lowers the noise level in the control room and closes off sounds behind the decorative DisplayCover.

The DisplayCover designs are as varied as our customers' requirements: Cupboard systems with wing or sliding doors, drawers with special interiors or integrated loudspeakers – the JST DisplayCover is both attractive and highly practical.

JST DisplaySuit
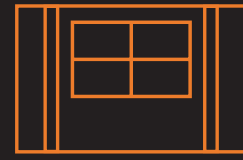
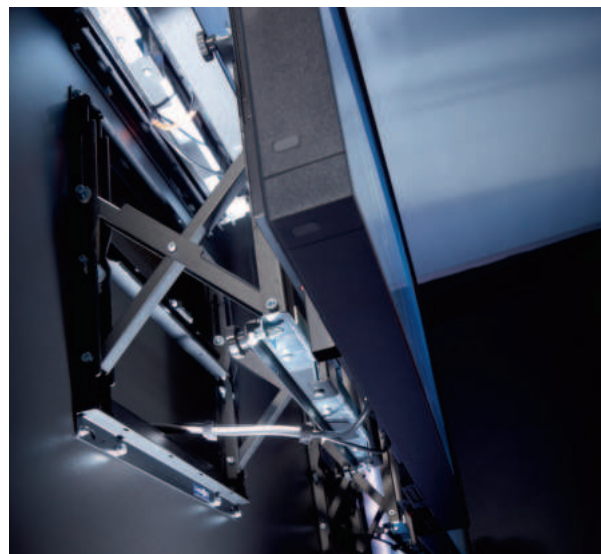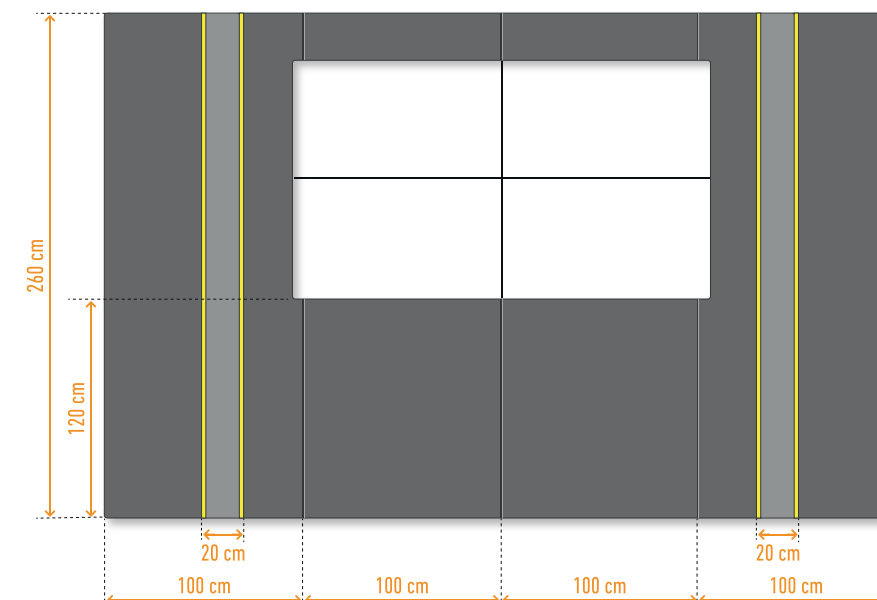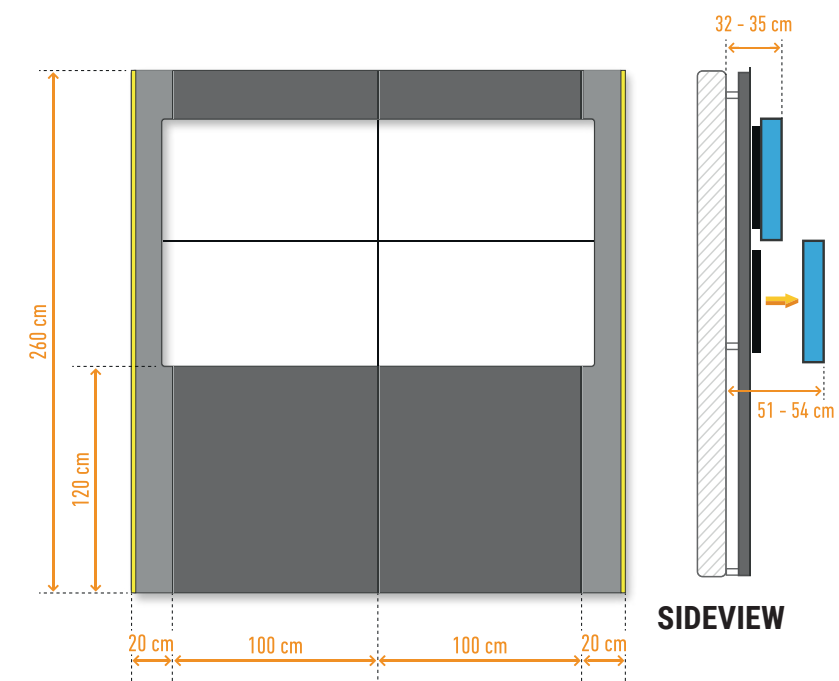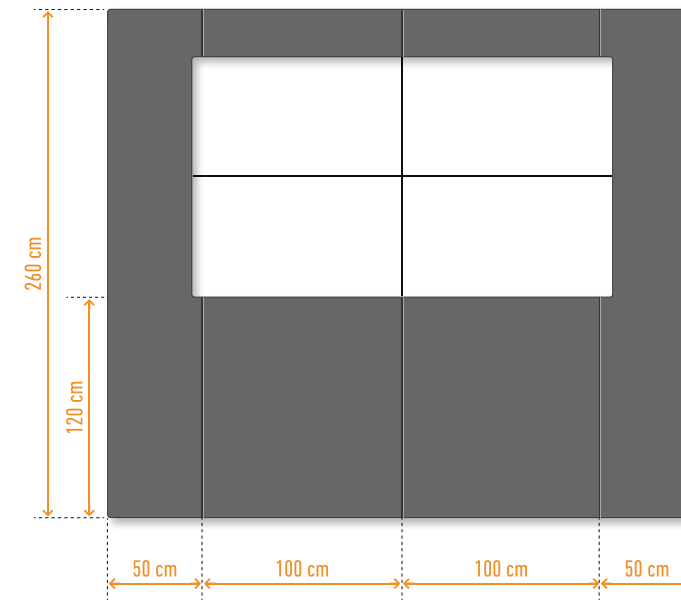The DisplaySuit: practical, perfectly designed and uniquely finished. The equipment options available will not only be a visual highlight in your control room. The use of the Quick-Out assembly system also sets new standards from a practical viewpoint. Even maintenance during ongoing operation is not a problem.

The Quick-Out assembly system means that individual displays can be easily pushed forward just be pressing lightly on the outer edges – even in ongoing operation. In addition, there is a technical compartment behind every large-format display. This means that the displays can rest directly on the panels of the DisplaySuit

DisplaySuit panels: A successful solution visually – easily accessible wall panels under the large-format displays create a perfect first impression when closed. The panels can be easily removed without tools to reveal concealed connection.

260 cm / 120 cm
50 cm · 100 cm · 100 cm · 50 cm

260 cm / 120 cm
20 cm · 100 cm · 100 cm · 20 cm

32 – 35 cm
51 – 54 cm

SIDEVIEW

260 cm / 120 cm
20 cm / 100 cm · 100 cm · 100 cm · 20 cm / 100 cm

Option A
without AlarmLight

Option B
with AlarmLight and narrow wall cover

Option C
with AlarmLight and broad wall cover

AlarmLight

THE SIGNAL INDICATOR

AlarmLight for DisplaySuit: An unlimited range of colours – visually and technically a real "bright spot" in your control room!

Need more information?

Call us on

📞 **+49 4161 – 54044-0**

or visit our website: **www.jungmann.de**

AlarmLight for DisplaySuit

Only JST DisplayWalls and the Stratos X11® control room desk have interfaces to the event-controlled alarm system! The advantage for you: Showing the most important alarms at the required time, at the right place and in the most effective size. This is what turns the DisplayWall into a reliable information hub, on which no alarm can be accidentally missed.

The AlarmLight light band is located in the stainless steel strips on the left and right of the large-format screen; it can also be integrated into the back wall of the Stratos operator desk. **The focus of the control room team is directly straight to critical alarms** by event-controlled light signals via your monitoring or process control system.

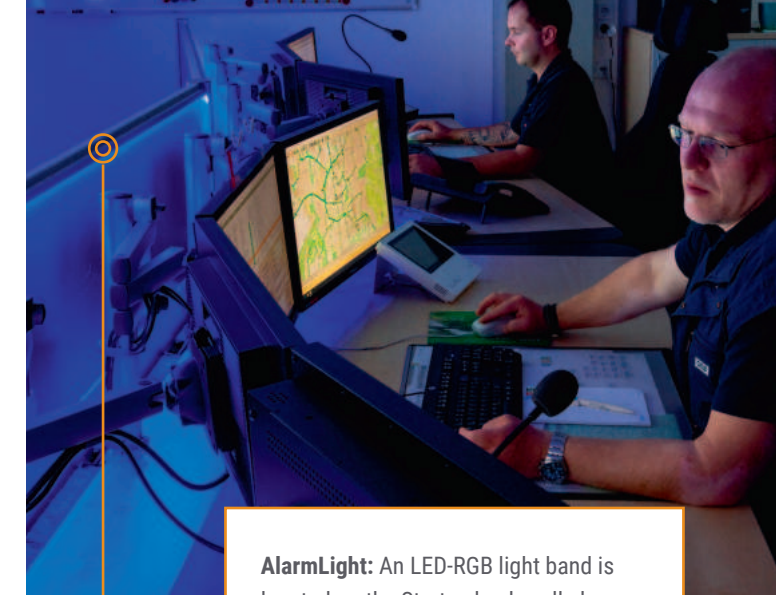|	
✓	**Shorter response times**
✓	**Attracts the team's attention more effectively with critical alarms**
✓	**No alarm can be missed**
✓	**Better visibility during minimally manned shifts**
✓	**Simple connection to your monitoring tools**

The choice is yours: Either you opt for a pre-programmed colour spectrum or you set the AlarmLight manually to suit your needs using the remote operation facility. The aim is to **ensure the operator's level of concentration is always high**. The pleasant ambient lighting around the work station plays a major role in this – especially during darker working hours.

AlarmLight: An LED-RGB light band is located on the Stratos back wall above the monitors.

BACKGROUND: It has been proved that event-controlled light signals are perceived more effectively by the entire team than a piece of information on a monitor.

The AlarmLight is controlled by your monitoring or process control system so that the colour can be changed depending on the event. The flashing and pulsing of the AlarmLight can also be individually adjusted.

Example 1: Your monitoring or process control system issues a warning which is forwarded to the AlarmLight. The AlarmLight changes the colour to yellow.

Example 2: Your monitoring or process control system reports a critical issue which is forwarded to the AlarmLight. The AlarmLight pulsates in red.

MultiConsoling®

THE OPERATOR'S HAND

MyGUI®
THE OPERATOR'S INTERFACE

Your network-independent real-time control center: You can connect all the sources you want – from the computer to the camera – with the monitors at the work station, large-format display wall and even the local crisis room.

ONLY AT
JST

Need more information?

Call us on

📞 **+49 4161 – 54044-0**

or visit our website: **www.jungmann.de**

MultiConsoling® controls your work stations and the display wall in real time independently of the IP network

MultiConsoling® combines the features of a graphic controller with the advantages of a **sophisticated matrix system** and allows a hghly available controlling of your video wall.

With the **myGUI® user interface**, every operator will have control of the large display and work stations well in hand in just four minutes!

✓ **Fast:** Imaging and keyboard/mouse operation in eal time

✓ **Secure:** Transmission without network

✓ **Flexible:** No additional software on your source computers, immediate implementation

✓ **A safe investment:** Totally independent of the operating system of the source computers

✓ **Scalable:** Display on operator station monitors and on DisplayWalls for the entire control room team

✓ **Free seating:** The operator can swap work stations in just a few seconds

MultiConsoling® – developed by JST

Once you've got to know this fast, totally flexible working method, you'll never want to do without it again. The combination of the **"MultiCenter" hardware component** and the unique **myGUI® software** provides every function you need for optimum control room operation.

◎ The hardware component:

All computers are connected, with keyboard, mouse, monitor and sound card if provided, to the "heart" of the JST MultiConsoling® – the MultiCenter. Cameras and TV receivers can also be linked with the MultiCenter. The MultiCenter comes with the MultiConsoling® API so that it can be controlled by the myGUI® software. The MultiCenter is thus fully tuned to all sorts of different working methods in the control room.

◎ The software component:

The crucial hub of a MultiConsoling® system is the **myGUI® graphical user interface.** This can either be displayed on a work station monitor or on the **innovative JST CommandPad®**, a concept developed exclusively by the JST ideas factory. With the JST CommandPad®, staff can keep a constant eye on even the most complex control room technology using the graphical user interface.

myGUI® Client

MultiConsoling®
the operator's hand

myGUI®
NEW
USER INTERFACE

- ✓ **Intuitive:** Designed in the 3D layout of your control room
- ✓ **Touch optimized:** Activate all systems instantly at the touch of a finger
- ✓ **Clearly laid out:** Just one mouse/keyboard or JST CommandPad® at workstation
- ✓ **Secure:** Superior handling in stressful situations
- ✓ **Comprehensive:** Operation of workstations, large-format systems, cameras, meeting rooms, media technology and much more
- ✓ **Compatible:** No installation on your computers necessary

Effortless control of all systems – with the new myGUI®

Secure, self-explanatory, simple – that's how easy it is to sum up the system controls in the control room with myGUI®. **Thanks to the new design it's now even more effective in field tests.**

The myGUI® is already being used as the user interface for the MultiConsoling® real-time control system in hundreds of control rooms. **The clear, intuitive layout of the graphical elements makes** effortless and superior control of the entire infrastructure in the control room possible. The vivid design reflects a sculpted, customized **3D layout** of the respective working environment.

You will be in control of all systems. With one click you can control workstations, large-display technologies, cameras, meeting rooms, lighting, media, air conditioning and building services engineering. **The system can be operated using the mouse, JST CommandPad® and touch commands.**

This is new:

The idea: new layout, new flexibility.

The Graphical User Interface has been updated and **optimized for touchscreens** alongside the desktop version. At the same time, users benefit from maximum visibility.

The result: A modern user interface style that makes the handling of MultiConsoling® and thus the control of the entire control room infrastructure a cinch – no matter if it's with a mouse and keyboard or the touch version.

Clearly structured text buttons and source lists – even for the structures of external rooms – make all systems readily available with the touch of a finger.

JST Grabber VM®: Entrance Ticket to the world of virtual machines

Immediate switching between virtuality and reality. The JST GrabberVM® in combination with the control options **JST MultiStreaming®** and **MultiConsoling®** allows the perfect integration of virtual systems. While one monitor is occupied with the applications of a conventional PC, another receives the signals of the virtual machine.

The operating concepts allow direct access to the VM server sources via the GrabberVM®. **The user switches between the individual applications without noticeable differences.** The advantages of this comfortable use of the Virtual Machines are obvious: more efficient deployment of the hardware with a quantitative reduction of the required components, but also reduced maintenance and energy costs with high availability.

Practical examples

JST MultiConsoling® concept:

- ⊘ **MultiCenter** in the technology room
- ⊘ **myGUI®-Software** in the control room

PCK Raffinerie GmbH

HZB Helmholtz Zentrum Berlin

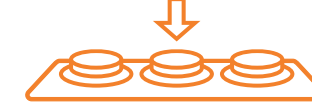**DREWAG**

DREWA

myGUI® **NEW** USER INTERFACE

| Mouse operating | Touch operating | Timer | CommandPanel | Voice control | Alarms |

*Automated, for example using PixelDetection®, traps, I/O contacts, external alarm tools

NEW CommandPad

Work station and large screen control with MultiConsoling®

1. The hardware components of MultiConsoling®

All sources (e.g. computers, cameras, SAT receivers, etc.) are installed in a **technical room**, away from the control room. The advantage for you: less heat and noise in the control room.

MultiConsoling® works by accessing the sources to be displayed **without any network**, which means that it is highly available, secure and without any loss of image and audio quality. Transmission of mouse and keyboard entries is **guaranteed** to be **instant**.

The technical room contains grabbers, the MultiCenter, computers and myGUI® controller.

B **Grabbers** pick up the signals from the remote sources and forward these to the MultiCenter.

C **MultiCenter** provides up to 288 ports, depending on the model series, to connect the grabbers (computers) and the MultiConsoles.

No additional software required on your source computers

In most cases, running external software on sensitive sources such as alarm and process computers is not allowed, for warranty and security reasons. The **myGUI® database** is therefore only installed on a **myGUI® controller**.

1 **TECHNICAL ROOM**

A **Remote sources**
(computers, TV receivers, other hardware)

The **mouse**, **keyboard**, **monitor** and **audio** are connected to a MultiConsole.

D **MultiConsoles** are housed in the control room. They are the receivers and are used to flexibly connect remote sources to display walls and work station monitors.

noIP variant

ACCESS DENIED

Maximum security for the protection of KRITIS against a cyber attack: MultiConsoling® with noIP technology

The superbly effective solution from JST: consistent separation of the **office network** (internet), which is essential for employee communication, from the system **production network**. That means that the production network – of a power station, for example – works independently of the IP network.
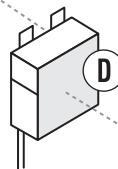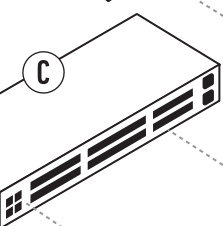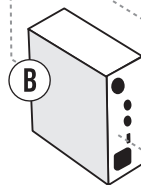
So if a hacker should unexpectedly get as far as the **office network**, it is impossible to use the network to access the control room controls in the **production network** and thus the controls of all the systems.

2. The software component of MultiConsoling®

All the computer signals in the technical room (keyboards, mouse, monitors, USB 2.0 data and audio signals) are brought together in the **MultiCenter** and forwarded in real time to the **multiconsoles** at work stations and display walls. All the computer signals, multiconsoles and display walls are displayed in the **myGUI® software** in the individual 3D layout of your control room. Operation is intuitive, with major advantages for your staff especially in stress situations.

2 **CONTROL ROOM**

As soon as you drag a source with your Live Icon (real-time preview) to a required field in the myGUI®, the source can actually be seen on the desired display (**large-format screen or work station monitor**) and can be used in real time. All sources can be shifted from place to place or even operated by several operators at the same time. The operator can change work station in just a few seconds.
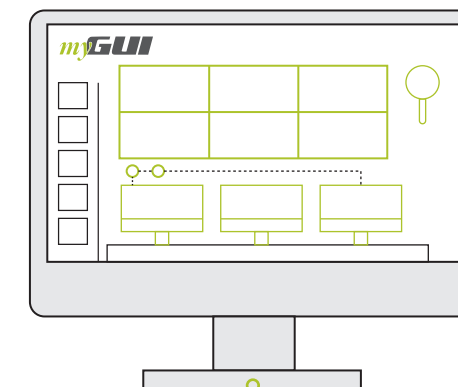
Respond instantly to alarms with the CommandButton Box

Automation for video walls and operator work stations: The operator can activate predefined scenarios by pressing a key on the Command-Button Box at the workstation.

Decentralised locations

ControlRoom Remote thanks to MultiConsoling®:

With the **MultiConsoling® concept** and the associated **myGUI® interface**, it is not only possible to control work stations and display walls easily. You are also able to connect to decentrally distributed computer systems independently of the IP network. This applies both for the decentralised technical room and remote back-up control room, including fully automated authentication.

As an option, the MultiConsoling® system can also be fitted with an IP interface. The distance from globally distributed control and technical rooms is then completely irrelevant.

TECHNICAL ROOM

The technical room contains grabbers, the MultiCenter, computers and myGUI® controller.

A

A

A

B

C

D

D

TV

A **Remote sources**
(computers, TV receivers, other hardware)

B **Grabbers** pick up the signals from the remote sources and forward these to the MultiCenter.

C **MultiCenter** provides up to 288 ports, depending on the model series, to connect the grabbers (computers) and the MultiConsoles.

D **MultiConsoles** are housed in the control room. They are the receivers and are used to flexibly connect remote sources to display walls and work station monitors

The **mouse**, **keyboard**, **monitor** and **audio** are connected to a MultiConsole.

myGUI

TV → TV

In **myGUI**®, simply drag the required source (PC) to your target monitor using Drag&Drop. Here: „**TV**" **to display wall.**

JST MultiStreaming®

TRANSFER YOUR DESK

Climb to a new level of control room operation with JST MultiStreaming®!
Outstanding performance: Intuitively switch any source with the myGUI® user interface to any desired display. Transform selected screens into a multi-display when needed. Only one mouse and keyboard for all applications. All this in a cost-saving way, with a sharpened focus on safety and the knowledge: Distances no longer matter!

FLEXIBLE // SECURE // COST-SAVING

Need more information?

Call us on

☎ **+49 4161 – 54044-0**

or visit our website: **www.jungmann.de**

← Here you can find out what makes JST MultiStreaming® so **unique**

Smart control station operation – highly available and secure

Efficient and reliable, secure and convenient - this is how KVM technology works today! With the JST MultiStreaming® succeeds the change to a new level of control room operation.

Special bonus of this high-performance solution: JST MultiStreaming® transforms the control station into a highly available real-time control center which can be flexibly scaled with regard to the issue of security. The options range from pure software systems, hybrid concepts, and hardware-based arrangements that meet even the **highest requirements for critical infrastructures (CI)**.

Flexible connection of any source to any screen with just one operating unit. Intuitive control with the Graphical User Interface myGUI®. The high level of functionality makes JST MultiStreaming® a trend-setting control room component.

The system provides impressive options, especially in the „remote access" discipline. Smooth, stable, with great transmission quality - **access to worldwide target locations** is established at lightning speed, even when security-related aspects are taken into account.

JST MultiStreaming® offers new perspectives in display usage: One of the most striking features is the **SplitView** function. A single screen serves as a playback device for various application combinations. Whether the entire screen content or a critical part of it - the user decides with which mix of sources he wants to turn the monitor into a multi-display.

Further plus points: When setting up the software-based streaming solution, time and costs are significantly minimized compared to conventional KVM structures. Future system expansions can be easily added - just as with a hybrid system in combination with JST MultiConsoling®.

With JST MultiStreaming®, there are no limits to the flexible interconnection of sources in the control room. Even newcomers can easily master the operation.
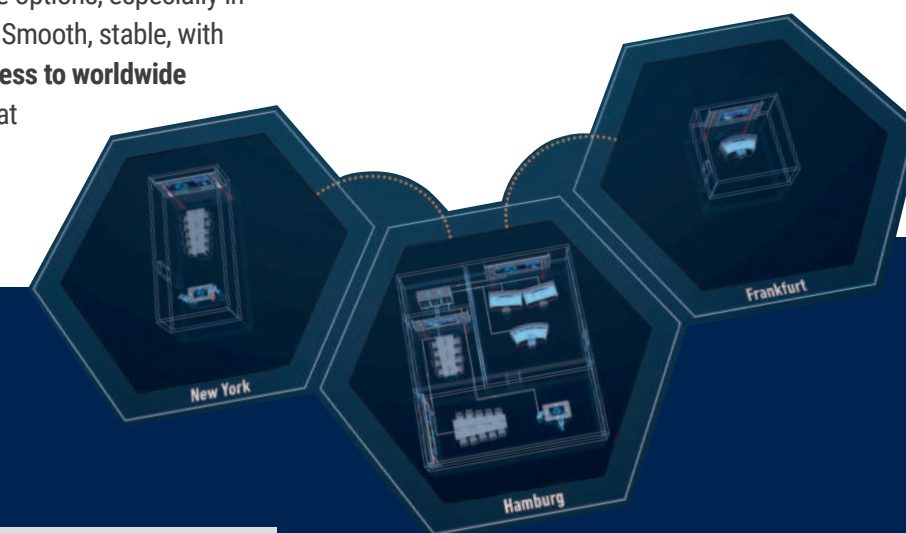
✓	**Inexpensive:** Integrate new computers at low cost		
✓	**Functional:** Streaming of all information over the network	✓	**Convenient:** Control of all systems with the myGUI® user interface
✓	**Flexible:** Each individual display becomes a multiscreen with SplitView	✓	**Clearly arranged:** Only one keyboard and mouse per workstation
✓	**Uncomplicated:** Just a single receiver software required	✓	**Compatible:** Hybrid solution with MultiConsoling® possible
✓	**Calculable:** No complex special hardware necessary	✓	**Secure:** Redundancy through distribution to different individual computers

SplitView

This way each single display becomes a flexible multiscreen

Gone are the days of rigid specifications based on fixed 16:9 formats. You determine the image section, size and positioning when displaying your applications. With JST MultiStreaming® you perfect the rendering on your displays and combine several sources on one screen thanks to the unique SplitView function.
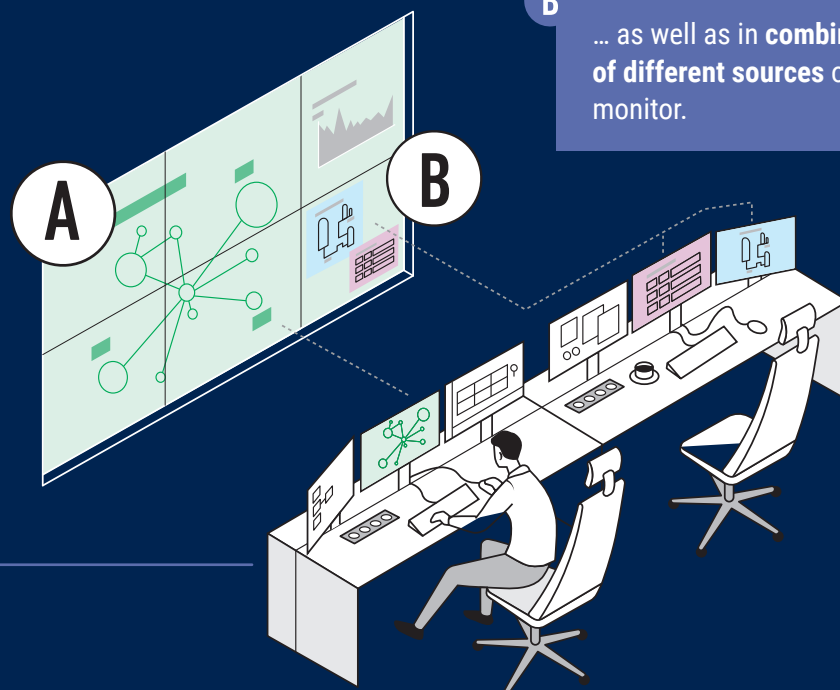
ONLY AT JST

A

B

… as well as in **combination of different sources** on one monitor.

A

SplitView makes it possible:

Each individual monitor can be used variably. The desired views can be **displayed across screens…**

A

B

ONLY AT JST

Dynamic Split Control

Feel free!

Dynamic split control opens the gate to a new performance world

Combine relevant systems independently in a clear presentation. Then operate the sources directly in the user interface! Then operate the sources directly in the user interface! With this decisive performance advantage, Dynamic SplitControl turns every single monitor at the operator workstation into an individual instrument of control room operation.

The user decides: one screen – many possibilities

With the split function that can be operated without delay display performance becomes an innovative experience! With this tool, the MultiStreaming software outshines the performance potential of known control systems. Dynamic SplitControl provides the

operator with absolute freedom and the flexibility to adapt to changing requirements in an event-oriented manner. Effortlessly, different selected sources can be combined and displayed on a suitable monitor via drag & drop.

This convincing monitoring solution was developed especially for control room workstations. The operator constructs a dynamic arrangement of the most important systems directly in his user interface, which can be changed depending on the task at hand. There is no need for a detour via the configuration interface. Special advantage: The connected sources are operated directly – without delay!

The operator decides situationally on which image section his current focus lies, which window is displayed how large. A functional mask that can be continuously modified. With Dynamic SplitControl, the workstation becomes a control center in which each operator not only makes demand-oriented adjustments to his sources, but can also change or rescale them at any time – all while the control room is in operation.

Remote access with JST MultiStreaming®: effortless and convenient!

Fast, fluid, secure, with excellent transmission quality and no noticeable delays – in the discipline of "remote access", JST MultiStreaming® shines as an unbeatable frontrunner. Regardless of whether you are accessing the control center from your home office or connecting to other sites. Would you like to see for yourself the impressive performance of the remote solution via JST MultiStreaming®? Our expert **Dirk Lüders** will show you how effortlessly this can be done.

Limitless remote to the world: fast, secure and constantly stable

Sensationally fast remote access – regardless of spatial distances. JST MultiStreaming® proves to be unbeatable in this discipline. But it is not only the exceptional speed that makes the remote aspect so impressive: Stable and at the same time " smooth" transmissions are among the convincing features of this control option.

Flexible scalability: The network architecture grows with your needs

"Standstill" – this word does not exist in modern control rooms. Tasks and requirements grow continuously. To take into account this digital expansion, we have designed the JST MultiStreaming® System in such a way that expansions are possible at any time – perfectly uncomplicated, even from an economic point of view.

AlarmLight, text ticker and source activation – this is how alarm detection works today

Detect alarms faster and shorten response times. JST MultiStreaming® not only controls warnings via the AlarmLight, but also switches on alarm sources at the workstation or large screen wall. Security is also provided by individual information via the text ticker – a message line that is impossible to miss on the monitors.

Three concepts for system operation in the control room: software-based variant, hardware solution or hybrid alternative

Do you want to conveniently control and operate every source in the control room? Do you want to conveniently control and operate every source in the control room? Three solution options are available based on JST MultiStreaming®. Depending on your priorities, the system can optimize the work in the control room both on a software basis and as a hardware version. Even the combination with existing MultiConsoling® systems is possible.

All three JST solutions for system operation in the control room have something in common: **Every single workstation in the control room effortlessly accesses any desired source.** With the intuitive myGUI® interface, operation becomes child's play.

Depending on the security level and budget planning the three concepts provide powerful tools to enjoy flexible and future-proof operating options.

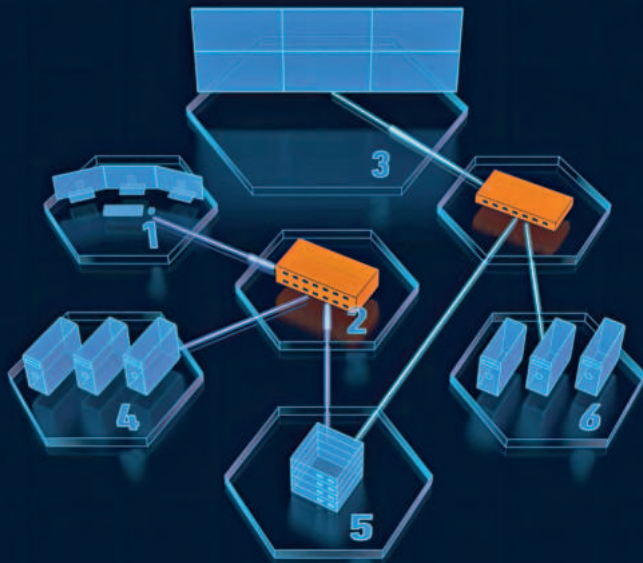|	**Multi Streaming**	**Multi Consoling**
Switching sources on the Display-Wall and at the workstation	⊘	⊘
Transmission type	TCP/IP (network)¹	Proprietary ²
Compatibility with JST CockpitView®/PixelDetetction®	⊘	⊘
Mousehopping	⊘	⊘
Remote dial-in	⊘ Low latency	⊘ Latency due to IP conversion
IT Security	⊘ AES 128 bit encrypted	⊘ Proprietary signal
Picture in picture (Pip)	⊘	⊗
Control and operation of sources in SplitView	⊘	⊗

JST Multi Streaming®
TRANSFER YOUR DESK

All sources of the control station can be easily switched via the network. The advantages of the software-based control option are obvious: economical and manageable, functional and flexible, future-proof and efficient. Innovative USP: the functions SplitView and Dynamic SplitControl.

1 JST MultiStreaming® consoles at the workstation:
Target sources are switched on here at lightning speed and can be operated directly.

2 Network switch takes over the connecting role:
The switch connects workstations and DisplayWall with the relocated source PCs.

3 Video wall with MultiStreaming consoles:
IP streams are sent directly over the network to the MultiStreaming consoles.

4 Source PCs send KVM signals:
The choice is yours - transmission via hardware grabber or via MultiStreaming software.

5 Remote access:
From home office or on the road - secure dial-in allows control and also direct operation of the systems.

6 Networking of worldwide locations:
Remote branch offices are bundled in central control station. Geo-redundancy creates security.

Multi Consoling®
THE OPERATOR'S HAND
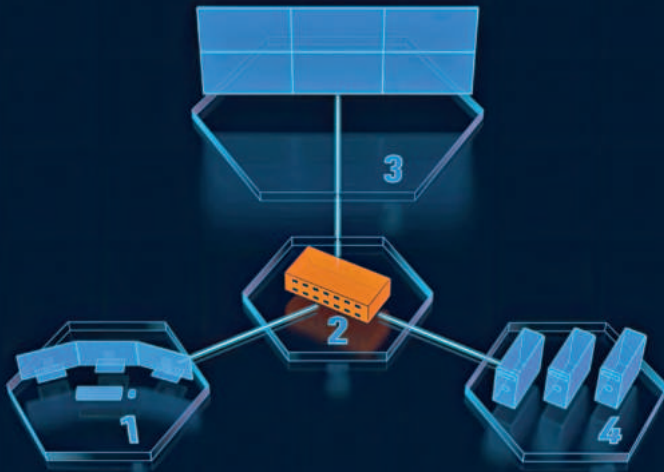
Hundreds of control rooms have relied on the superior performance of control room management with MultiConsoling® for years. No additional software on your source computers! Maximum security thanks to well thought-out hardware components. A real-time control center - highly available and network-independent.

1 MultiConsoling® consoles at the workstation:
The selected target sources are switched on directly on the workstation monitor in a flash and are immediately available for operation.

2 MultiCenter control unit:
A classic KVM matrix offers flexible options. Proprietary signals in the MultiConsoling® network serve as the basis for interconnection with the MultiCenter.

3 Video wall with MultiConsoles:
Sources are switched to the large-screen displays without delay and compression; as BigPicture even across multiple displays (in 16:9 format).

4 Signal transmission via hardware:
The MultiConsoling® grabbers forward the keyboard-video-mouse signals to the MultiCenter, the heart of the hardware-based system.

Hybrid Steuerung

The best of both worlds: Do you want to add the benefits of JST MultiStreaming® to your MultiConsoling® system? Or you generally favor hardware solutions for your control room? No problem! In combination with the MultiStreaming grabbers, mixed operation can be realized effortlessly.

1 MultiConsoling® consoles at the workstation:
Target sources are available at the workstation in a flash and can be operated directly.

2 MultiCenter control center:
KVM matrix offers flexibility. Proprietary signals form the basis for interconnection with the MultiCenter.

3 Video wall with MultiStreaming consoles:
Signals are received by the consoles via the IP network and automatically recognized.

4 Signal transmission via hardware:
The MultiConsoling® grabbers take over the forwarding of the KVM signals to the MultiCenter.

5 Signal converter:
The KVM signals are transferred from the MultiConsoling®- directly into the JST MultiStreaming® system and converted.

6 Choice of software or grabber:
KVM signals are forwarded from source PCs alternatively with a software- or hardware-based solution.

Pixel Detection®

THE OPERATOR'S EYE

PixelDetection®, "the operator's eye", supports operators if too many surveillance monitors are superimposed on the work station. Tried and tested for many years: PixelDetection® **shortens response times in case of critical alarms.**

ONLY AT JST

Powered by JST

PixelDetection®
the operator's eye

PixelDetection®
the operator's eye

SERVIEW CERTIFIED TOOL 2 PROCESSES
IT SERVICE MANAGEMENT

Need more information?

Call us on
📞 **+49 4161 – 54044-0**

or visit our website: **www.jungmann.de**

PixelDetection®, the Operator's Eye

In the past, many operators referred to the Pixel-Detection® software as **"the operator's eye"**. And indeed, PixelDetection® works on the same principle as an operator in a control station. He always needs to keep an eye on his surveillance monitors. **PixelDetection® films (monitors) the content of the desired monitors and compares the recording with reference values** that you have defined beforehand. These reference values are defined colours or texts in your applications.

Operating the PixelDetection® software is easy: You mark the areas that are to be monitored with one or several frames. The areas within the frames are monitored by PixelDetection® for changes in colour or text. You can also draw a frame around the entire screen if you don't know where an alarm is likely to appear. As soon as the preset reference value is reached, an alarm is triggered on the display board or at the work station.

PixelDetection® has already been successfully in use for years in the "MMS" control center at Audi Ingolstadt.

In contrast to the human eye, PixelDetection® can monitor countless screens or computers. There's no need to program or adapt any interfaces, because PixelDetection® works on a purely pixel-oriented basis. JST does not need to install any software on the computers to be monitored. We just work with your application's video signal!

Four good reasons for choosing the multi-award-winning software from JST:

01 | Supports concentration:

There's no longer any need to watch various green displays, since PixelDetection® is event-controlled, and **only notifies the operator when an alarm appears on the monitoring computer**.

02 | Scalable:

The most important alarms are forwarded across locations or for the stand-by team with a screenshot of the alarm situation. In this way, staff can still make the decisions **even if they are not actually in the control room**.

03 | Space-saving:

No need for lots of monitors at the work station and reduction in excessively large DisplayWalls.

04 | Flexible:

You keep your monitoring tools, and do not need to coordinate any interfaces or make sure that lots of different protocols are compatible. The reason: **PixelDetection® detects texts and colours solely on a pixel basis**.

JST CockpitView®

THE OPERATOR'S DASHBOARD

JST CockpitView® supports you in the effective monitoring of your computers and systems.

ONLY AT JST

powered by JST

Cockpit View

Need more information?

Call us on

+49 4161 – 54044-0

or visit our website: **www.jungmann.de**

The IP–independent cockpit for your control room

JST CockpitView® is also called "the operator's dashboard" by its users, since the operator can put together his panel of instruments in the control room exactly as he needs to give an overview. This is what modern system and plant control looks like nowadays. "Fast, secure, flexible and scalable" – these are the four factors that make JST CockpitView® globally unique:

- ✓ **Fast:** The most important information at a glance, keyboard and mouse operation in real time
- ✓ **Secure:** Transmission without network
- ✓ **Flexible:** No additional software on your source computers, immediate implementation
- ✓ **Scalable:** Display at the work station monitor or on VideoWalls for the entire control room team

To be able to monitor the IT systems, video cameras, building technology, production equipment, servers, software management systems, etc. in control rooms, all sorts of monitors with different applications are essential. For the operators in the control room, this means keeping a permanent eye on a large number of monitors. Monitoring the host of different applications means that the number of monitors at the work station is increasing. In addition, there are often large display systems, which are actually intended to make things easier for staff; but ultimately, these become an additional display that needs to be watched.

In this way, the amount of data to be monitored on the large display system and the work station is constantly rising, and **the point is reached where careful monitoring of all the applications is no longer possible**. A recent study by the Federal Institute for Occupational Health and Safety (BAuA) on the subject of "Screen working in control stations" showed that the long-term monitoring of more than three monitors at the work station is not possible without errors.

Put your important data all together on a central Cockpit Monitor. Cut out the relevant information from different computers and group it together in

JST CockpitView®. It doesn't matter if the computers are working in different network segments. Operate your systems with the keyboard and mouse in real time.

No additional software needs to be installed on any of your computers displayed in the JST CockpitView® monitor. **This is what modern system and plant control looks like nowadays!**


Monitoring more than three screens at the workstation is not possible on a permanent basis without errors.

Results of the recent study by the Federal Institute for Occupational Health and Safety (BAuA) on the subject of "Screen working in control stations".

JST MyLogin®

THE OPERATOR'S SECURITY

The **Free-Seating concept** specially developed for control centers allows an automated login and logout process using a chip card – without passwords.
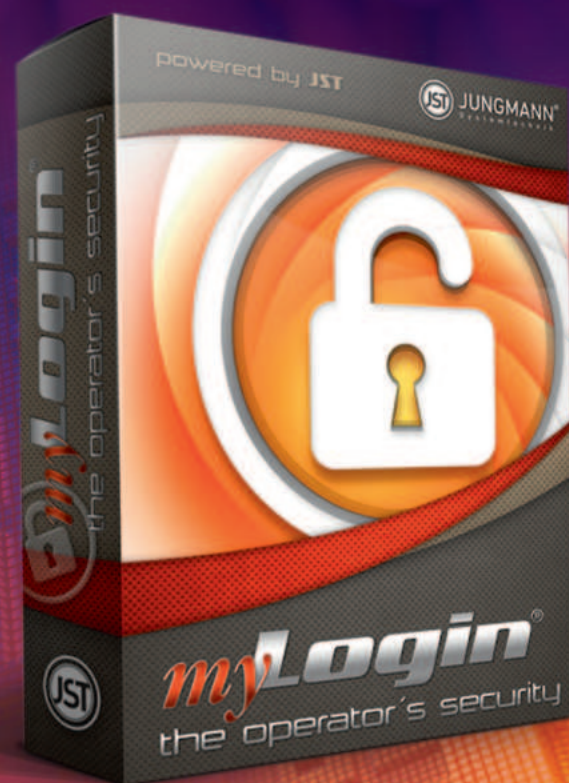
Need more information?

Call us on

📞 **+49 4161 – 54044-0**

or visit our website: **www.jungmann.de**

More flexibility in your control room with better security – this is what JST myLogin® offers

Ease of use and transparency are two important arguments in favor of JST myLogin®.

Every employee has his own card on which individual authorizations are stored. If he leaves his workstation, his team colleagues can unlock the computer's keyboard and mouse by means of their own login. **Lightning fast and uncomplicated.** In this way, a free-seating concept can be combined with maximum security standards, if required.

Another feature of the JST myLogin® technology offers additional convenience and maximum traceability: **Every login and logout process can be seamlessly tracked in a report.**
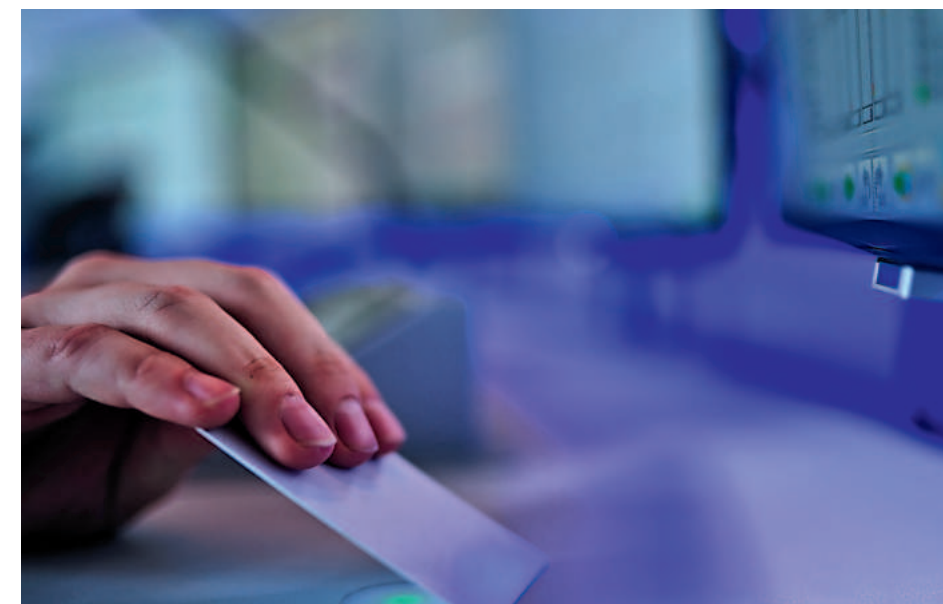
Red RGB-LED light band: Work station not in use (employee has logged out)

Green RGB-LED light band: Work station actively in use (employee is logged in)

Fast, flexible & secure

JST myLogin® is a revolutionary solution allowing you to log in and out **at all operator work stations** centrally and quickly using your company ID card.

The login/logout process only takes a few moments and **will also save your personal screen content layout preferences if you wish.**

✓	**Fast:** Logging in and out in just a few seconds
✓	**Free seating:** The operator can change work stations and the screen content follows him.
✓	**Simple:** No software needed on your computers
✓	**Secure:** Collective users & group accounts can continue to be used
✓	**Flexible:** Use a JST myLogin® user card or your company ID card
✓	**Logbook:** On request traceable evaluation of login data

Mouse Radar

MORE VISIBILITY FOR YOUR MOUSE CURSOR

Maximum usability! With an individually adjustable timer, your mouse will always be visible even in the resting position. So no more annoying shaking and searching. The cursor changes into a clearly visible moving icon.

POWERED BY JST

Mehr Sichtbarkeit für Ihren Mouse-Cursor!

MouseRadar
MORE VISIBILITY FOR YOUR MOUSE CURSOR

Showing the cursor

At a work station with several monitors, it sometimes happens that you no longer know which screen you've left the cursor on. If you also use the proactive large display wall as an active work interface, the search for the mouse can turn out to be pretty tricky – and sometimes the operator will move the mouse roughly backward and forward so that the cursor becomes visible again.

This is exactly where the MouseRadar can help: After a variable time, the cursor automatically becomes visible. An animation, which you can configure freely, appears around it. The advantage: The program does not need to be installed on your computer.

- ✓ **Fast:** No more annoying "shaking the mouse" and searching for the cursor
- ✓ **Secure:** No more accidental mouse clicks
- ✓ **Clear:** You see the cursor immediately
- ✓ **Individual:** You can use your own graphics (e.g. company logo)

Need more information?

Call us on

☎ **+49 4161 – 54044-0**

or visit our website: **www.jungmann.de**

ControlRoom automation

THE OPERATOR'S ASSISTANT

With the CommandBox, you automate routine tasks and still retain full control. A tap on the JST CommandPad® touchscreen or a press of a button on the CommandButton Box is all it takes to quickly process recurring events and recall predefined scenarios.

Need more information?

Call us on

☎ **+49 4161 – 54044-0**

or visit our website: **www.jungmann.de**

Automation for video walls and operator work stations

The CommandBox, which is designed on a redundant basis, is able to reliable receive and **process almost all alarms** and to **forward them at lightning speed to the display wall and work stations**.

The input signals processed include, include floating contacts, audio signals, TCP-IP traps, image data evaluations by PixelDetection®, SNMP and many more. In addition, predefined scenarios can be activated by the operator by pressing a key on the JST CommandPad® at the work station.

Quickly deal with recurring events or call up pre–defined scenarios at the push of a button

With CommandBox, you can automate routine work and still stay totally in control. You can call up recurring tasks at the push of a button or let everything run completely automatically, just as you wish.

The CommandBox communicates with wire-connected technology (e.g. floating contacts) and with software programs. This means that potentially useful constellations can be created for day-to-day operation – get some advice!

The CommandBox acts as the operator's personal assistant. It is responsible for the reliable receipt of all alarms and for their immediate forwarding to the required screens.

- ✓ **Making work easier:** Operators are reliably supported
- ✓ **Lightning fast:** Alarms transferred to work stations and display walls
- ✓ **Secure:** Important alarms will never get lost again
- ✓ **Teamwork:** Systems transferred to large display wall
- ✓ **Flexible:** Almost all input signals are processed
- ✓ **Situation-related:** Complex (alarm) scenarios are also available at the push of a button

CommandBox: An action or the color change of the AlarmLight is triggered by pressing a button. The CommandButton Box consists of either five or ten buttons. An LED ring around each button shows the operator which switch-on is active. This is particularly helpful in the case of visually similar process control or system monitoring images. The button bar is recessed almost flush into the tabletop of the Stratos X11® operator console. The buttons are labeled individually.

So, for example

- **the computer with the myGUI® operation** could be switched to a previously selected monitor,
- **a specified computer could be switched as a Big Picture** to a display wall or to different computers as a Single Picture,
- **using an SOS button, a specified group of peoples**, the IT department or the department manager could be informed of the alarm.

ControlRoom remote

THE OPERATOR'S GLOBAL ACCESS

Distances no longer matter!

The JST GrabberVM® and GrabberIP systems integrated into the control room control system enable the comprehensive and convenient integration of decentralized structures and locations. So you can connect up your decentralised situation centers, crisis rooms, standby teams, etc. really easily. Cross-locational backup scenarios for complete control rooms are also possible!

Need more information?

Call us on

☎ **+49 4161 – 54044-0**

or visit our website: **www.jungmann.de**

ControlRoom Remote: an elegant solution for integrating decentralised structures, systems and locations

Our MultiConsoling®-based systems Grabber IP and Grabber VM enable you to connect up decentralised systems and locations comprehensively and conveniently. Integrate computers in decentralised technical rooms using Grabber IP or access remote virtual machines using Grabber VM. Connect with a decentralised control station using Grabber IP. The operator can connect up local computers as quickly and conveniently as distant systems, since operation is via our uniform myGUI® graphical user interface.

✓ **Intuitive:** Only one user interface for the control and connection of display walls

✓ **Secure:** Cross-locational backup scenarios of complete control rooms

✓ **Flexible:** Simple connection of situation centers, crisis rooms, standby teams, etc.

✓ **Fast:** Fully automated authentication

Technical room **BARCELONA**

Control room **CHICAGO**

Situation center **MUNICH**

Standby team **BERLIN**

Control room **BERLIN**

Technology room **FRANKFURT**

©roywimzy, ©bloomicon (AdobeStock.com)

With just one single user interface – the interactive myGUI® in the 3D layout of your control room – it is not only possible to control display walls with ease; you will also be able to switch in to systems and locations across the globe. That applies for decentralised technical rooms, distant backup locations, or your flexible standby team – all with one standardised operating concept.

Geographical distances don't count any more!

Kontrollraum **BERLIN**

JST TacticTable®

CONTROL THE SITUATION

Crisis management and information exchange:
Interactive multi-touch screens create new possibilities for communication in the control room

MADE IN GERMANY

Would you like more information?
Call us at
☎ **+49 4161 – 54044-0**

or visit our website!

← **Performance and flexibility** – experience the interactive JST TacticTable® here

JST TacticTable® – smart technology as a source for team-based solutions in the control room

An interactive touch screen integrated into a desktop solution – this approach to promoting constructive, team-based security activity is becoming increasingly important in the control room industry. Yet when looking for practice-oriented models that offer more than just futuristic-looking packaging for large LCD displays, the market is reaching its limits. **JST now provides the answer for professional control room applications: the JST TacticTable®.**

↑ **JST TacticTable®:** Whether using applications from the control center or displaying external users - different data can be freely and simultaneously positioned in the desired size.

The idea behind this product: a central node, a smart information hub that can consolidate all of the data from the control room on demand. The goal of this innovative approach to work is obvious – optimized performance based on concentrated mutual incentives. The performance potential and skills of the individual are multiplied by bundling creative solutions in a team.

To achieve this effect, the JST developers designed the JST TacticTable®. This is a technical innovation which, thanks to being fully integrated with the JST MultiConsoling® control system, makes it possible **to access all sources and processes available in the control room** when required and with appropriate authorization. The comprehensive compatibility with MultiConsoling opens up unlimited flexibility.

- ✓ **Access to all sources** and processes of the control room
- ✓ Full integration into the **MultiConsoling®** control system
- ✓ **Flexible gesture control**
- ✓ The basis for **constructive teamwork**
- ✓ **Secure handling** with the intuitive myGUI® user interface
- ✓ Visual signals with the **integrated AlarmLight**
- ✓ Possibility to display **external data**

Swipe, zoom, rotate – interactive touchscreen makes handling quick and easy

Critical infrastructure or process control system, disaster control or crisis response, training or shift handover - as an interactive multi-touch tool, the JST TacticTable® provides the basis for sophisticated analyses within a selected team. In addition to the control center information, **data from external experts** can also be easily fed in. Various workstations can be freely and simultaneously positioned in the desired size.

Installed JST CommandPads® create the best conditions for reliable handling via the intuitive myGUI® user interface. Text input is even possible thanks to superimposed keyboards. Users can receive visual signals while working on the JST TacticTable® via the JST AlarmLight, which is integrated into its solid metal construction.

Whether you swipe, zoom, rotate or drag – **gesture control elements are as simple as on a smartphone,** making the use of the JST TacticTable® effortless for employees. A central instrument that creates new opportunities for communication and thus for team-based decision-making.

Stratos X11®

THE OPERATOR'S DESK

The Stratos X11® control room furniture system for years of use in **24/7 operation**.

◎ The VOC room air sensor (Volatile Organic Compounds)
◎ Login / logout process within seconds
◎ Height adjustment
◎ JST CommandPad®
◎ Qi charging pad

MADE IN GERMANY

Every system handcrafted
Made in Germany

Table configurations available
in straight and semi-circular layout

Need more information?

Call us on

📞 **+49 4161 – 54044-0**

or visit our website: **www.jungmann.de**

X11 Stratos
EACH STRATOS X11 PLANTS A TREE

Stratos X11®: the ergonomics bestseller

Professional, modular and robust - these are just some of the demands that JST control room furniture fulfills. The masterpieces of the Stratos X11® series are used in hundreds of control rooms. The control room bestsellers not only impress with their durability and stability, they also set new standards in technology and ergonomics with their convincing functions.

Optically, technically, and ergonomically the highlight of the Stratos model series – the masterpiece Stratos X11®.

With its well-thought-out construction and convincing features, our control room classic has become an absolute bestseller. The perfect choice for those who want to benefit from ergonomic comfort and essential features for increased safety in the control room.

X11 Stratos

Here, price and performance meet in the proverbial "golden mean." The Stratos X9, with a fixed width of two meters, also complies with the legal ergonomic requirements for control room workstations. Robust construction and electric height adjustment are indispensable basics for JST consoles.

The X9 can be perfectly customized through an **optional range of upgrades**.

X9 Stratos

A control room desk that utilizes resources both spatially and economically? However, ergonomic and comfortable aspects should still be taken into account? With the Stratos X3, JST can provide a control room table that meets these requirements

Visually, the entry-level model follows the lines of "its big brothers" – albeit in a more airy construction that still scores in terms of stability.

X3 Stratos

Height adjustment: When it comes to the health of your workforce. The entire unit can be freely moved to the best sitting or standing height using an electric motor. The height adjustment range is between 65 and 125 cm, as specified in DIN EN 527-1.

Optics and safety in combination: Clean lines define the look of the Stratos X11®. The generously dimensioned storage area, which is hidden behind a convenient flap construction, contributes to the accurate overall appearance. The illuminated supply compartment offers plenty of space for large quantities of cables and technical installations.
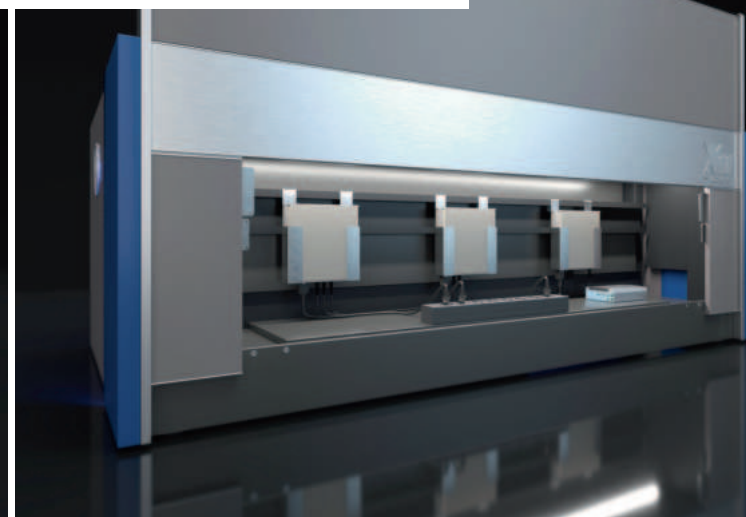
Full control in the blink of an eye:

With the **JST CommandPad®**, a control panel specially optimized for 24/7 operation, the operator has the myGUI® user interface and thus the entire control room control permanently in view. Whether in the integrated variant or as a flexible desktop solution, an endless selection of predefined myActions can be triggered with just a tap of the finger.

This component distinguishes the Stratos X11® in its function as a control room console: Comprehensive and constant overview of all systems is provided by the JST CommandPad® with the **myGUI® user interface** – optionally available as integrated solution **(A)** directly in the console surface or as flexible desktop variant **(B)**.

A

B

Flexible, secure, and in a matter of seconds: With a user card or company ID card, the login/logout process is completed via an integrated card-reading sensor. Simply swiping the card is sufficient for the login process. The system recognizes personal identification and authorization at each workstation. Comfort without compromise.

The smartphone must always be at hand, even in the control room? Constant power is a basic requirement? The new Qi charging pad - integrated into the surface of the Stratos control room table - offers a convenient solution. Wireless charging! The power socket was yesterday. Stratos consoles always ensure 100 percent!was yesterday.

Fatigue-free work in a healthy climate! With the AI-supported VOC room air sensor (VOC = Volatile Organic Compounds), the Stratos X11® replaces human senses. If the air quality deteriorates, the control room operators receive immediately a message. Temperature, humidity and oxygen content are constantly monitored.
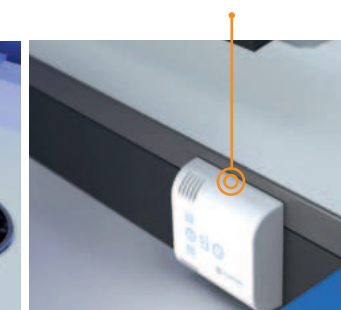
The Stratos X11® Curve

The Stratos X11® Curve in half-round shape has generous dimensions from 300 to 360 centimeters; without sacrificing stability. Taking ergonomic aspects into account, the Curve is also equipped with electric height adjustment.

The Stratos X11® in the „Curve" variant is particularly well **suited to workstations where a large number of screens are required**. The curved lines open up new possibilities for room design. Whether round or straight, all units can be combined according to the customer's wishes. The 360-centimeter-wide version, shown in the picture above, can also comfortably accommodate two employees.

Legislation on screen work in control rooms: Due to its many years of activity in the planning of control rooms, JST has a wealth of experience and particularly deep insights into the activities of operators. Thanks to this background, JST was able to support the Federal Institute for Occupational Safety and Health in the study "Screen Work in Control Rooms". Use this know-how to plan your control room according to the best technical and ergonomic aspects.
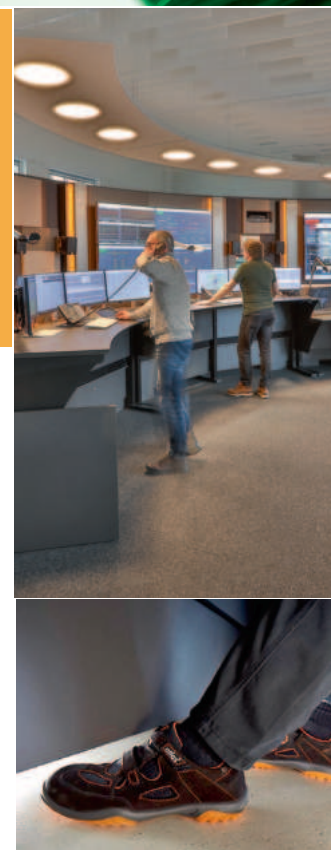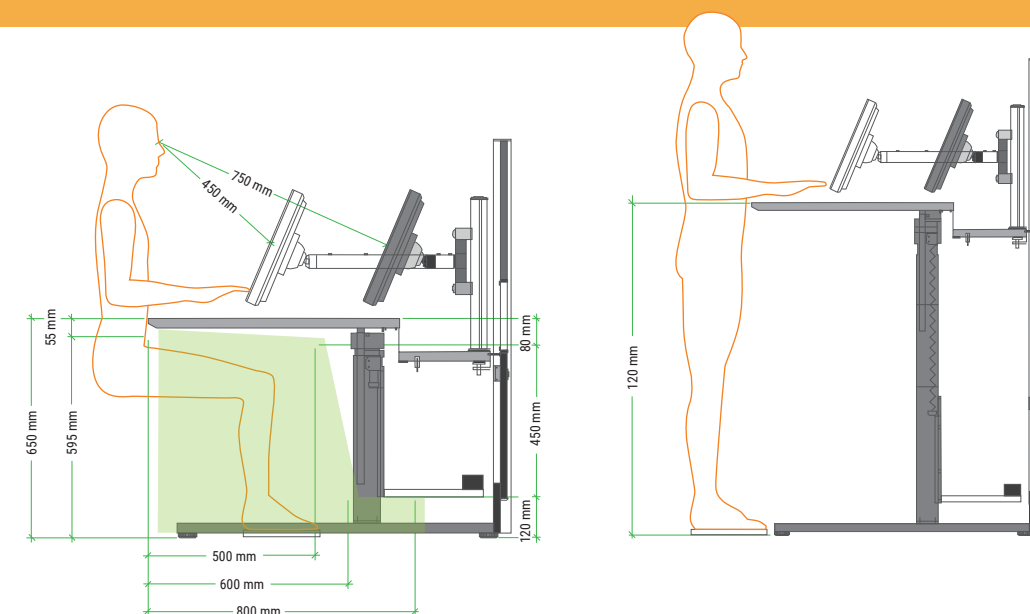
JST CommandPad®

THE OPERATOR S TOUCH INTERFACE

More safety, more efficiency, more comfort!
With the JST CommandPad®, the operator team keeps the entire control room management permanently in view. Desired presets are activated at the touch of a finger on the myGUI® user interface, which has been optimized for touchscreens. In a flash and intuitively, the operator takes over the sovereign control of all systems.

One look, one click – with the JST CommandPad® you take control immediately

Making the right decision in a fraction of a second and executing all adequate operating steps?
The JST CommandPad® supports the user in this challenging task. The practical test has proven it: With one glance at the panel, the entire control room operation can be identified safely and efficiently. This is ensured by the myGUI® user interface with its intuitive 3D layout of the whole control room architecture. The unique myGUI® is already successfully in use in hundreds of control rooms.

Symbiosis with myGUI® creates maximum benefit

The symbiosis of myGUI® user interface and JST CommandPad® provides the control center team with immediate and unrestricted access over all control room components. The real-time operating systems JST Multi-Streaming® and MultiConsoling® can be used effortlessly and without delay. A tap of the finger on the touchscreen is all it takes - no cumbersome command entries, no delays.

↑ **Perfect integration into the Stratos X11® operator console:** Together, JST developers and furniture designers have created the ultimate combination of technology and usability: The built-in version of the JST CommandPad® is integrated directly into the Stratos X11® operator console, leaving sufficient room for movement for working with mouse and keyboard.

Smart solution leaves no room for errors and incorrect entries

Contemporary control rooms require components with outstanding performance. Seamless security is one of the indispensable requirements for controlling the systems.

The solution: an unmistakably visual and functional operating option. With the JST CommandPad® and the myGUI® user interface, mistakes and accidental input errors are eliminated a priori. At the same time, the protection of highly sensitive sources can be reliably implemented via the myGUI® controller - with strategic rights and role management.

Two options: Integrated into the Stratos X11® - the number 1 among control room consoles - the CommandPad constantly creates a fully comprehensive overview of all systems in the control room infrastructure. Alternatively, the smart solution is also available as a mobile version, which is suitable for meeting or crisis rooms, for example.

- ✓ **Lightning fast:** Get instant control with a tap of your finger
- ✓ **Safe:** Predefined scenarios leave nothing to chance
- ✓ **Clear:** Display in 3D layout of the working environment
- ✓ **Flexible:** Also available as a mobile version – for crisis rooms, etc.
- ✓ **Convenient:** No time-consuming control commands necessary
- ✓ **Effortless:** Convenient handling thanks to predefined presets
- ✓ **Functional:** Any number of desired presets possible

Need more information?

Call us on

📞 **+49 4161 – 54044-0**

or visit our website: **www.jungmann.de**

← **React quickly and intuitively!** Learn more!

JST Air Quality Sensor

Health protection in the control room! AI-controlled air quality sensor replaces human senses. This way, the ability to concentrate and well-being can be increased.
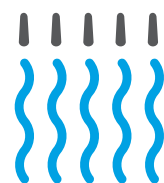
- Room temperature
- Humidity
- VOC detection (Volatile Organic Compounds)
- Control of indoor air

Need more information?

Call us on

+49 4161 – 54044-0

or visit our website: **www.jungmann.de**

Functional solution creates optimized working conditions

✓ **Air quality sensor checks status of indoor air**

Keeping concentration and attention at a constantly high level for hours on end - a requirement that control room employees in particular must perform. The problem: *Volatile organic compounds (VOCs)* impair the indoor air quality, but are not consciously registered by the employee. The result is fatigue and a lack of concentration.

Perform air analyses - the human nose is not made for that. This task is performed by sensors that have been developed to permanently monitor the indoor air for concentrations of undesirable compounds. JST has now optimized this option into a functional solution especially for work in the control room: The JST Air Quality Sensor complements the many ergonomic benefits of the **Stratos X11® control room console**.

If defined threshold values are reached, the system actively alerts the operator with a warning message. A traffic light system makes it easy to identify deviations on the JST CommandPad integrated into the Stratos surface. The basis for this is the myGUI® graphical user interface, which is used for convenient control room operation with MultiConsoling®.

In addition to VOC detection, the sensor, which calibrates itself independently with AI control, also has **additional functions**: Room temperature and humidity are also measured continuously.
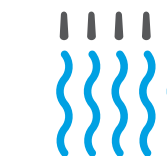
"Electronic nose" as a permanent companion at the workplace: The VOC air quality sensor can be optionally attached directly at the Stratos desk - discreetly on the back.

Body reacts to gradual change: Everyone remembers the situation from the school days: just a moment ago, the air in the room seemed acceptable. But even after leaving class for a short time, it becomes clear upon returning how "thin" the air suddenly seems. Oxygen is missing here. However, the human senses do not consciously perceive the gradual change. Rather, the body reacts to what it is missing. The spectrum ranges from concentration problems and exhaustion to irritation of the eyes and mucous membranes or headaches

✓ **Monitoring of indoor air prevents negative effects on well-being**

✓ **Volatile Organic Compounds (VOCs) are continuously detected**

✓ **Basis for increased attention to monitoring tasks in the control room**

✓ **AI-driven analysis reliably replaces warning signals from human senses**

✓ **Easy to identify via traffic light system in the myGUI® user interface**

✓ **Values for temperature and humidity are also permanently determined**

Recaro 24

THE OPERATOR'S CHAIR

Headrests that can be adjusted in height and angle of inclination for relaxed working. Optional: interchangeable washable headrest covers for shift operation (hygiene)

Angle of back-rest can be adjusted using handwheel on both sides

Individually adjustable lumbar spine support. Use of high-strength materials for the frame and cover (decades of experience in the design and manufacture of high-quality vehicle seats)

Armrests can be folded up, adjustable angle of inclination and tested to maximum load

Pump (Airmatic®) for pumping up air cushoin in lumbar spine area.

Optional seat area extension for larger thigh rest

Need more information?

Call us on

📞 **+49 4161 – 54044-0**

or visit our website: **www.jungmann.de**

24 MONTHS WARRANTY*

*Also in 24/7 operation

The ultimate Recaro operator's chair for 24/7 use in the control room

RECARO 24 – the operator's chair that adapts to you. Ideal for 24-hour use in the control room and control station. Because people who spend several hours at a time sitting down and still need to stay physically and psychologically fit make very tough demands on their chairs.

- ✓ Specially made for **24/7 use**
- ✓ **Seat height adjustment** with pneumatic spring
- ✓ **Very comfortable seat** because of firm upholstery
- ✓ **Synchronised setting:** individual weight adjustment facility (approx. 60 –130 kg, optional up to 200 kg)
- ✓ **Tested to British Standard** expressly for control center chairs in 24-hour use (by LGA Bayern)

Controller 24 V3

THE OPERATOR'S CHAIR

Comfortable: headrest with adjustable side pads - flexible in inclination and height

Dynamic: Optimized for 24/7 use, the CONTROLLER 24 can be used either permanently mobile in free-swing mode or locked in the desired position. A gas pressure spring regulates the height setting. The backrest is adjustable in the inclination several times. The mechanism can be individually configured to the user's weight - an option that not only supports correct sitting and working, but also increases the durability of the control room chair at the same time.

Gentle on the back: low-fatigue and back-friendly sitting! An air pelvic support enables infinitely variable adjustment to the respective user.

Flexible: Shock-resistant folding armrests can be adjusted in inclination or angled upwards with a rotary wheel. 4D armrests are available as an option, also in combination with the folding armrests. These can not only be adjusted horizontally and in width and height, they are also equipped with a 360° swiveling rest.

Need more information?

Call us on

☎ **+49 4161 – 54044-0**

or visit our website: **www.jungmann.de**

24 MONTHS WARRANTY*

*Also in 24/7 operation

CONTROLLER 24 V3
Perfect partner for shift operation in control rooms

Hard-wearing and durable, ergonomic and convenient - convincing features of the CONTROLLER 24. Its plus points make it the perfect partner for control room activities in shift work - even for people with wider backs. Among its key features is a free-swing mode that can be permanently activated if desired. In addition, the chair's mechanism can be individually adjusted to the weight of its user. The result: correct sitting is supported and the service life of the control room chair is increased at the same time.

Standard cover: black / faux leather / center panel: robust fabric cover /grey mottled

Free swing mode

Weight adjustment (~ 60 - 150 kg)

Air-pelvic support

Frame construction: stable / self-supporting / Gas spring for height adjustment

Folding armrests: inclination adjustable / folding mechanism upwards

Comfort neck rest, adjustable

Castor versions: optionally for hard floors or alternatively for carpeted floors

AllMedia

CONFERENCE-SYSTEM

Leading furniture designers have designed this multipurpose table **exclusively for JST**. The combination of shape, colours and materials produces durability plus timeless design.

The AllMedia is vastly superior to traditional conference tables. The reason? The integrated MultiConsoling® system, through which all sources (such as computers, cameras and television) can be immediately accessed and operated on monitors, large-format displays and projectors.

Conference tables for:
→ Situation centers
→ Deployment centers
→ Crisis teams
→ Restart rooms
→ High-quality meeting rooms
→ Training rooms

AllMedia Conference System – attractive, timeless design

Flexible thanks to MultiConsoling®: The MultiConsoling® system integrated in the AllMedia system means that every source – TV, notebook, workstation or DVD player – is available immediately everywhere, even in different rooms or locations.

AlarmLight – the event-controlled light signal: This system dramatically increases the level of attention to critical alarms.

Secure: Even occasional visitors to the conference room can operate the MultiConsoling® system quickly and intuitively, without previous training.

A safe investment: Even the most complex technology can be integrated without compromise and is prepared for future changes.

Expertise from one source: DisplayWalls (large-format systems) can also be combined visually and technically using the AllMedia concept. JST can install the right DisplayWall at the same time.

ControlRoom
Furniture

Whether it's a crisis/conference table, sideboard,
display wall cover or cupboards –
we'll take care of all of it!

Control center furniture to match your corporate design

The **Stratos X11® Control Room Furniture System**
is the professional, modular, robust solution for
furnishing your control center, control room and
control station. We can furnish your control room
and your meeting room in your own individual cor-
porate design.

Elegant coverings for display walls and clean installation

We cover your display wall system to go with the room furnishings. The cover can also be supplied in an
acoustic version if required. This means that noises from the large-format display will not reach the control
room. In addition, the noise level in the entire control room is lowered.

Need more information?

Call us on

📞 **+49 4161 – 54044-0**

or visit our website: **www.jungmann.de**

Wall cupboards

The wall cupboards are adapted to the **design of your Stratos Command-Desk**. The functions and interior fittings of the cupboard systems are planned individually for you.

Storage lockers

The storage lockers hold **lockable drawers** which can be placed under the table top of the Stratos CommandDesk. The lockers are designed for shift workers so that every can access the personal items securely and quickly right at the work station.

Functional furniture

We provide your control room with functional furniture to meet your individual requirements. What makes it special: To create a completely quiet working atmosphere, not just the wall surfaces but also the furniture is clad with **sound-absorbent material**.

The control room furniture factory "Made in Germany"

JST's furniture items set new standards visually as well as practically. In our affiliated furniture factory, the top priority is not only using the best possible materials; design aspects are also of crucial importance. And it all bears the label "Made in Germany" – by specialists for specialists.

Individual and practical in an appealing design

We aim to supply made-to-measure cupboard solutions – customised completely to your requirements – so that we can offer practical solutions for everyday shift work in your control room. At the same time, we hope that your furniture components will complement the visual appearance of your control station. You'll be amazed at what's possible.

OPAL X11®

OPERATOR ACOUSTICS LIGHT

The creative, practical solution
for improving noise levels and lighting
in your control station – attractively
and effectively!

Need more information?

Call us on

📞 **+49 4161 – 54044-0**

or visit our website!

Opal X11® – a new level for the operator work station

Extensive, clearly structured spaces, a clean atmosphere and, usually, high reinforced concrete ceilings – the classic picture of a modern control room. What often makes this concept problematic in reality is the **level of noise**. JST has picked up the challenge of finding an alternative to the costly option of using a complete acoustic ceiling: "Opal X11®" is a component that takes the operator work station to a new level.

In close collaboration with experts in the fields of spatial acoustics and lighting design, the control room specialists have developed the "Operator Acoustics Light – Opal X11®", a ceiling sail that is adapted spatially to the operator desk and is attractive in more ways than one.

OPAL not only effectively lowers the noise level. An integrated HCL (human centric lighting) light source, i.e. a form of illumination that takes into account the visual, emotional and biological effects of the light, **and the colour values of which affect concentration and performance**, makes this system uniquely attractive particularly for shift work in control stations.

A further advantage of the system: OPAL is linked with the JST myGUI®. That means that, in the case of an incident, the integrated │ **AlarmLight** │ is illuminated or flashes, depending on how it has been preset. The operator's attention is drawn to an event, not just visually but also via an integrated audio component.

- ✓ **Easy installation** and manageable budget

- ✓ Insulation material with absorption of αw 0.80, i.e. **80 percent of spoken noise is absorbed**

- ✓ **Flexible design options** to suit individual needs

- ✓ Integrated HCL (human centric lighting) **improves concentration and performance**

- ✓ Developed on the basis of **occupational health requirements** for shift operation in control rooms

- ✓ Integration of visual and acoustic **alarm systems** (including third party systems)

The advantage for the operator

The Opal X11® ceiling sail gives clear added value to the operator's work station. Alongside sound absorption and the individual adjustment of the lighting, the element has another advantage: The integrated audio system can be activated both via the myGUI® cabling and also, as an option, via Bluetooth.

Knowing what's coming

Thanks to the professional software, the effectiveness of the Operator Acoustics Light can be determined before installation. It is thus possible to define beforehand what improvements in room acoustics will be achieved, i.e. how high the absorption will be before and after installation of the ceiling sail.

PSM: Proactive System Monitoring

Your new control room houses all sorts of equipment: displays[1], MultiCenters, MultiConsoles, grabbers, myGUI® controllers, CommandBoxes, redundancy/backup modules and more …

## How can this control room technology be effectively monitored?
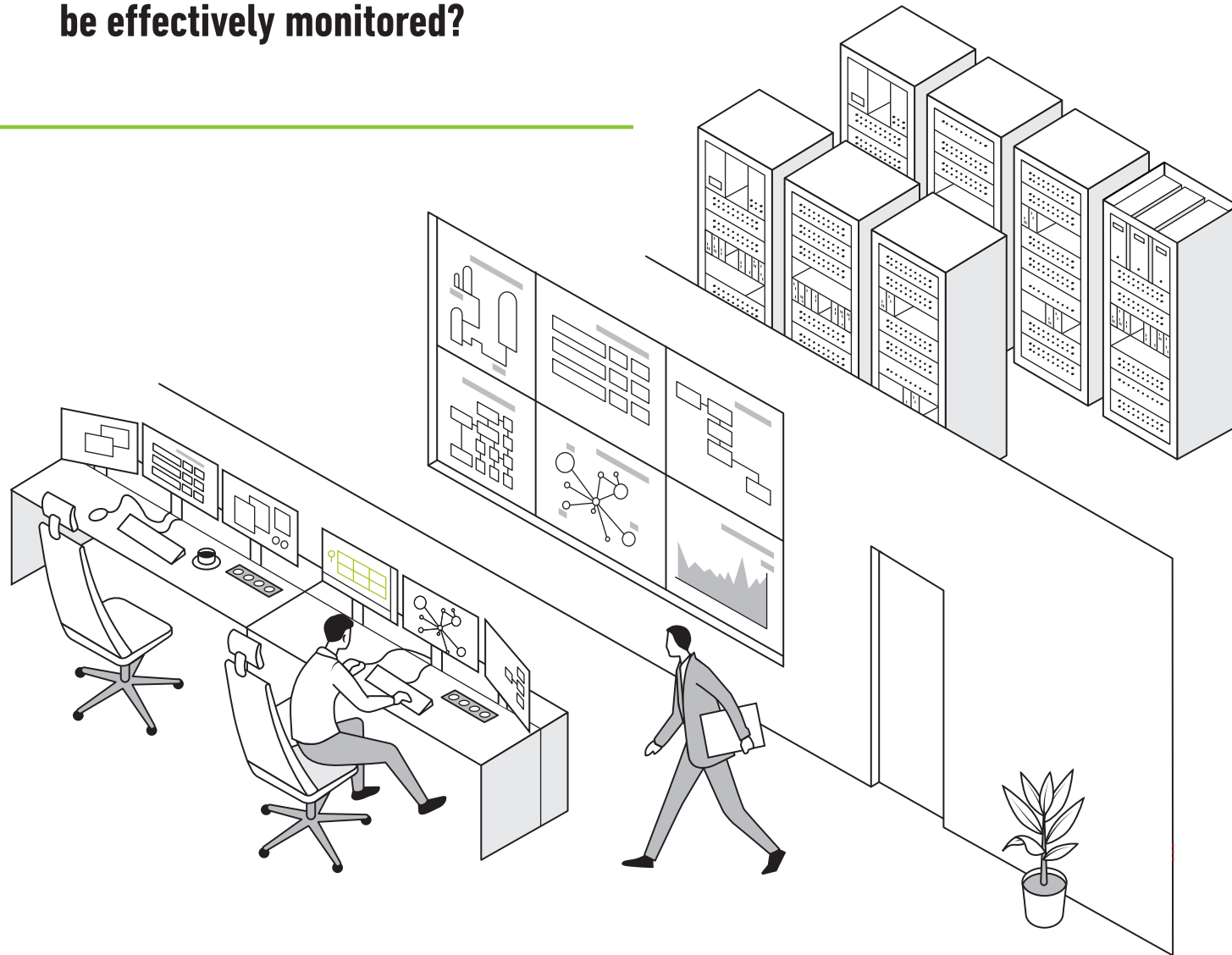
We think of everything and have the right answers!

Our professional **PSM system** can monitor all your control room technology – **proactively!** We can discover defects, irregularities and wear **before** any faults arise, and can take the necessary measures.
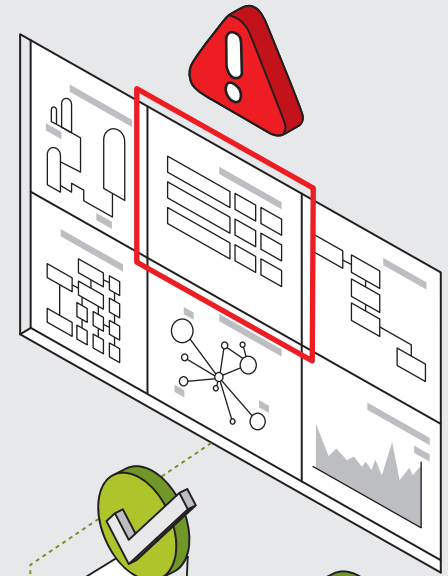
PSM works simply and efficiently:

1 **myGUI® software** with optional P**SM module**[2] is connected to the devices in your control room.
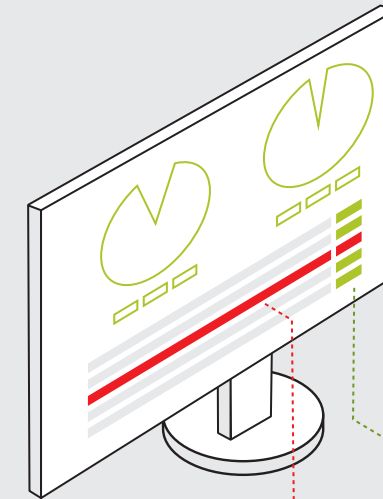
The PSM module constantly checks the status and diagnosis data of all devices:

2

PSM sends the information about the faulty device in real time to **your server**. This in turn forwards the information to the **JST server**[3].

3 PSM interprets the data and, if necessary, triggers actions which have been defined in advance. **JST Service takes action!**

Need more information?
☎ **+49 4161 – 54044-0**

1) Possible with most displays, depending on model type. 2) Available from myGUI Version 3.0, rev. 1.350
3) If no data transfer to JST is required, the PSM server can also be installed "on premises" at the customer's location. Monitoring is then carried out by the customer.

ControlRoom
Simulator
DISCOVER THE FUTURE

JST **Tactic**Table®
CONTROL THE SITUATION

Experience the workplace standards of tomorrow today: innovative large-screen systems and their control options JST MultiStreaming® and MultiConsoling®, PixelDetection®, JST CockpitView®, Stratos X11®, intuitive touch-screen operation, latest security concepts, interactive situation table, creative lighting design, acoustic concepts, etc.

Book a workshop now!

📞 **+49 4161 – 54044-0**

se our **remote workshops** for turbo entry into the JST control room world - without travel time.

On-site appointments can still be booked as well.

Having a vision of the future is good. Experiencing it is better!

Off we go on a big-screen hunting.

Take a look into the future and see the latest large screen technology. From the interactive Multi Touch Screen to the DisplayWall, you can expect technology at the highest level, of course also in terms of software. Our JST-PixelDetection® software shows you the automated alarm activation on the large screen wall. The alarm and management tools you use are only displayed when they require your attention; reaction times are drastically reduced!

Enjoy your new freedom.

In the Control Room Simulator you can actively test the flexible workstation interconnection Multi-Consoling® and experience the advantages close up.

Discover unimagined comfort.

Test smart solutions for team-based control station activities: Specialized furniture such as the Stratos X11® control room desk, operator chairs for continuous 24/7 continuous operation or the new JST Tactic-Table®. Discover acoustic large screen wall cladding, ConferenceDesk with various PC connection interfaces, meetingpoint and much more.

Visit the control room simulator virtually – get advice as if you were live on site.

All you need is a computer with Internet access and, if necessary, a telephone for voice transmission. Also be used optimally for meetings with employees at decentralized locations.

Thanks to state-of-the-art camera technology, we can advise you live from the control room simulator. You and your team experience an online tour of our control room simulator with our experts - also in parallel from variable locations, in German or English.

Online control room analysis – how fit is your control station?

Would you be interested in finding out the improvement potential of your control room and making best use of your resources and opportunities? JST offers **free advice and analysis for your control room**, control station, control center and control point.

- ✓ How do you assess the **room conditions**?
- ✓ What **ergonomic requirements** do the work stations meet?
- ✓ What **technical equipment** for the work station do you use?
- ✓ How do you rate **ease of operation**?
- ✓ … and lots more aspects of your control room

TECHNOLOGY

ERGONOMY

LAW

COMFORTABLE

OPERATING CONCEPT

PARAMETER

Are you interested?

Then request your personal, free access code now!
Please check the box "Free potential analysis" in the contact form!

www.jungmann.de/kontakt

Guides, **checklists**, **practical examples**, **solutions**, and **specialist articles** on setting up your control room, control station, control center and control point

I WOULD LIKE TO KNOW MORE ABOUT
"THE GREAT PRACTICAL BOOK OF CONTROL ROOMS"

Need more information?

Call us on

📞 **+49 4161 – 54044-0**

or just check out our website!

www.jungmann.de

JUNGMANN
S y s t e m t e c h n i k