

CMS suite

Control room management software



Barco's CMS software is an advanced control room management suite which improves the decision-making process, allowing decisions to be taken faster and more effectively. Barco's control room management suite provides operators and decision-makers with easy access to information and allows them to connect to multiple information sources, to control how and where they are displayed, and to collaborate in the most efficient way

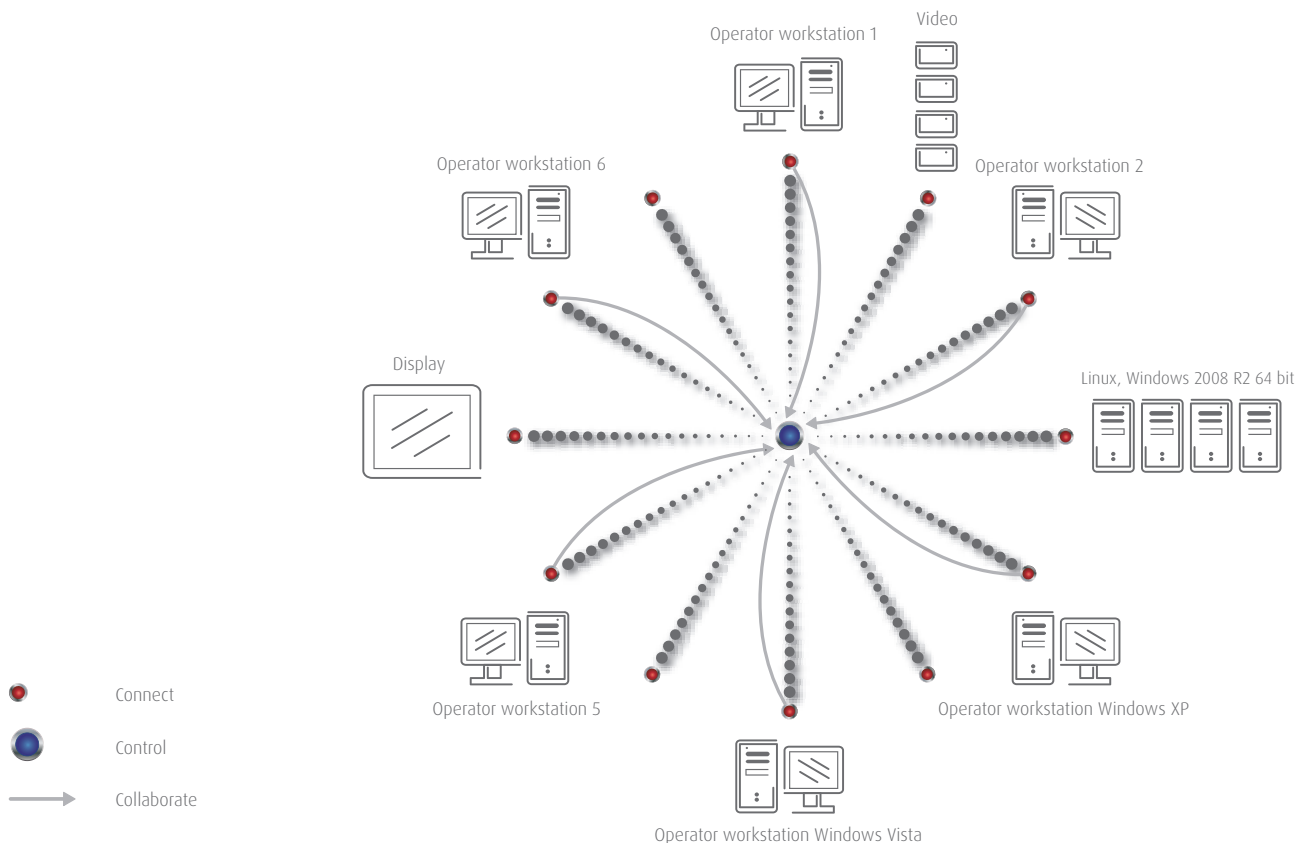
BARCO

Visibly yours

Connect. Control. Collaborate.

Today's control rooms are complex networked environments handling an ever increasing number of video and data sources. Efficient collaboration and decision-making is only possible if operators and decision-makers have easy and timely access to this information. In many cases, information even needs to be accessible to multiple users at the same time.

Barco's CMS software has been designed to facilitate decision-making and to allow more efficient collaboration wherever there is a need to bring information to multiple persons at the same time, wherever they are located. Barco's control room management suite provides operators and decision-makers with an easy way to create a common overview – also called situational awareness – by providing access to individual sources or complete sets of information. This information, which can be any video or data source, can be shared and viewed at the same time over multiple locations – while simultaneously controlling exactly what can be seen and accessed by the users. This creates a new collaboration experience which has an enormous positive impact on speed and quality of the decision-making process.



Barco's control room management suite

Connect.

Thanks to its networked concept, Barco's CMS software enables users to easily connect to a multitude of sources, regardless of where the information has to be presented – on small LCD displays, video walls or operator workstations. Since all sources are available over the network, no dedicated hardware is necessary to visualize the information.

Control.

Barco's CMS suite offers nearly unlimited possibilities to control and manage displays and sources. Thanks to the usability-engineered CMS environment, managing information is done intuitively.

Collaborate.

With the CMS software, Barco has redefined control room collaboration. Through the unique concept of Perspectives, CMS allows to make more efficient use of the control room display estate, and to share user-defined information views with colleagues more efficiently.

Visualizing any information anytime, anywhere

Thanks to its networked architecture, Barco's CMS allows to monitor operations and visualize real-time content from anywhere in the control room facility. Be it on a small display, a workstation or a video wall, the sources can be distributed and displayed as many times as required in any location. Moreover, by using a distributed IP architecture, the investments for viewing and monitoring systems are smaller, because there is no use for AV switches and expensive cabling.

Efficient use of display estate

When every pixel counts, efficient use of the control room's display estate is of essential importance. Barco's CMS software contains a set of advanced features which allow operators to easily work with high-density information and share it more efficiently. For example, an operator can compose a personal layout with a variety of sources, but only send that particular part of the information to a video wall which really needs to be shared with the group or a supervisor.

Seamless and risk-free integration into your control room

Barco's CMS suite is a hardware independent, networked visualization software package which seamlessly integrates into your control room environment. CMS relies on industry standard networks, application servers, software, decoding technologies, workstations and video walls. The risk-free approach of combining proven technology with a networked architecture gives your control room system an unmatched flexibility and availability. Through the transparent use of industry standard hardware acceleration, the CMS software leverages the full potential of current and future off the shelf PC components and dedicated Barco components.

Future-proof hardware acceleration

Performance demands are increasing with every new PC generation and they are not always in sync. In order to meet the demands and provide a guaranteed performance, Barco also offers dedicated, firmware upgradeable, hardware accelerator cards which significantly extend standard PC capabilities. The CMS software is therefore fully compatible with Barco's PWS and NGP controller series.

All-round control room management

Barco's CMS monitoring and collaboration software proves its power in various control room type of environments. From Traffic and Surveillance scenarios to Utilities, Process Control, C4I and Broadcast uses, Barco's CMS suite allows operators to make the most of their complex networked control room environment.



Barco's CMS ...

... for broadcast monitoring

In modern broadcast environments, the number of sources that needs to be viewed and controlled simultaneously is increasing dramatically. The networked architecture of CMS allows broadcast professionals to monitor, process and visualize their real-time content from any location, just by using off the shelf hardware. This way for example a sports reporter could see a live feed of a football game and at the same time compile and submit up-to-minute reports from a laptop computer. The reporter could even view multiple live games and report on them at the same time.

... for Command & Control applications

Barco's CMS software allows Command & Control operators and commanders in mission-critical environments to share situational content with other shipboard, air-based and field-deployed systems or with Joint Operations Centers. The distributed concept of Barco's CMS suite accelerates decision-making for all stakeholders, because it enables interconnection of multiple display systems and insertion of situational variables for battlefield understanding, force management, planning and resource allocation. In addition, it allows efficient information control across services and echelons and on individual operator workstations as well as on large-area COP displays. Barco's CMS suite has also been awarded with a Certificate of Networkiness (CoN) by the US Army's Network Technology Command.



Barco's CMS ...

... for Traffic and Surveillance centers

With CMS Barco has taken shared situational awareness one step further. Designed for network-enabled information sharing, CMS allows operators to define, select and share their own Perspective according to the current situation and share it with other operators. Looking at the same visual information allows for faster and more efficient communication and briefing, and hence for faster and smarter coordinated responses to incidents in the field. For example, operators can share their view with their supervisors, or a composed view in a briefing room can be shared with personnel on site. Nearly any source can be displayed, including streaming video, web pages and applications. Thanks to its extensive API, the distributed functionality can be easily integrated into third-party applications.

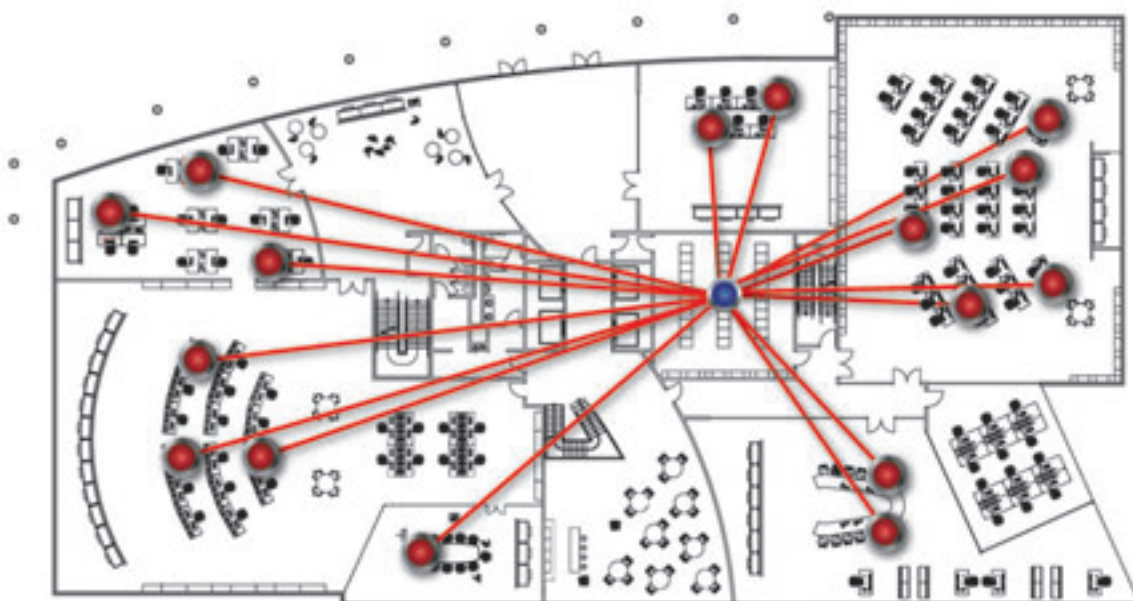
... for Utilities & Process Control centers

When managing dynamic processes, it is essential to get to the right information fast and share it with experts and managers. CMS brings this flexibility in an intuitive matter. Easy connection to local and remote displays and cameras allows for a flexible working environment that promotes faster and smarter decisions. CMS allows process control room operators to easily connect, monitor and share remote or local displays onto a group display. The software supports audit trails for NERC and CIP-7.

Control room management at your fingertips



With Barco's CMS, control room management is at your fingertips. The software provides instant access to your sources anywhere in your facility, and removes all limitations to ensure efficient control room collaboration.



Barco's CMS allows to monitor operations and visualize real-time content from anywhere in the control room facility.



Connect

Barco's CMS control room management suite is able to connect to a wide variety of sources and displays via the network. The control room management suite fully supports the Barco PWS and NGP controller series which allow offloading software decoding and rendering tasks from the CPU onto the specialized acceleration boards. All available sources can be selected and previewed in full quality from the source list in the Sidebar. Installing new displays is straightforward, as you only need to browse to the central server and click the link to load the software onto the required display.

Easy access

Easy user interfaces allow operators to view sources by simply clicking on them on the local workstations desktop. The drag and drop capabilities provide an intuitive interaction which operators can easily master.

Supported sources:

- Analog and digital PC sources (DVI & RGB)
- Screen scraping of Unix and Microsoft Windows servers, workstations & applications
- Web based applications, portals and internet sources
- Application management on displays
- Analog video
- Streaming video, including MPEG2, MPEG4, H.263, H.264 and JPEG2000 streams
- Full support for various video formats, both file-based or streams, by using Microsoft Windows Media Player technology

Connect

Browse the network and select your user interface.

Control

Use the Sidebar to control your displays and sources, and create your favorite source sets.

Collaborate

Send your views to a networked display or video wall and share them with your colleagues.



The CMS software is fully compatible with Barco's PWS controller series.

Connect

Browse the network and select your user interface.

Control

Use the Sidebar to control your displays and sources, and create your favorite source sets.

Collaborate

Send your views to a networked display or video wall and share them with your colleagues.



Control

The control room management suite allows operators to quickly and effectively organize sources, displays and workstations throughout the control room.

Fast installation

CMS allows for a fast click & point, browser-based installation over the network for displays, workstations and screen scrape sources. The Central Server contains all the necessary binaries, drivers and configuration for automated remote installs.

Intuitive configuration

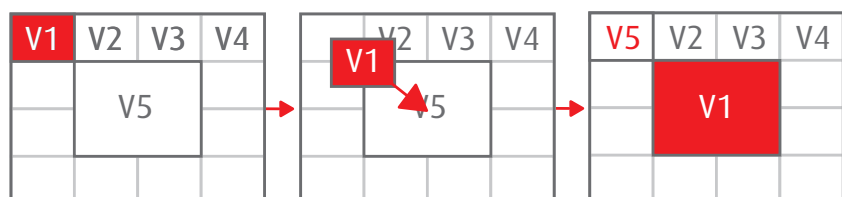
CMS can be easily configured via the Sidebar, which contains all features to access, control, configure and display sources, displays and Perspectives. The Sidebar contains a wide variety of decoration components, called Decorators, which visualize metadata on these sources. Decorators include the source name, date and time, labels, logos and borders. System assets are automatically detected. During the configuration phase each and every capability can be verified immediately. This reduces the configuration time drastically as well as the amount of configuration errors.

Remote Control

Via the Mini-Display module, CMS provides direct remote control over a certain display's content. Loading presets of applications and sources can be managed from here, as well as moving and sizing of the windows on the remote display. You can drag and drop from the Sidebar, which is an easy and intuitive way of changing the content on the remote display.

Role Based User Management

Administrators can control users and groups and assign permissions and roles very easily. Automatic integration with Microsoft Active Directory or other LDAP systems makes the integration of the software into the existing IT solution extremely simple and secure.



With a simple drag and drop action, it is possible to easily switch sources within a Perspective.

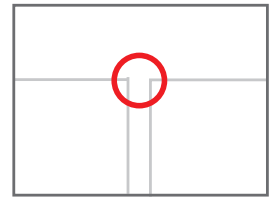


Smart layout management

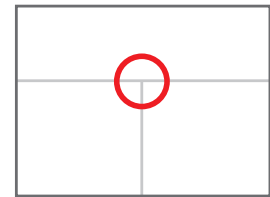
Layout management is made easy, thanks to smart features. Perspectives can have predefined Tilings. These are predefined placeholders for sources, which make the often tiresome alignment of sources superfluous when creating source arrangements for video walls.

Selecting a specific Tiling will cause the Perspective to rearrange the sources into placeholder configuration. The Snapping functionality makes sure that no pixels are lost, and that separate windows are perfectly aligned. With a simple drag and drop action, it is possible to easily switch sources within a Perspective.

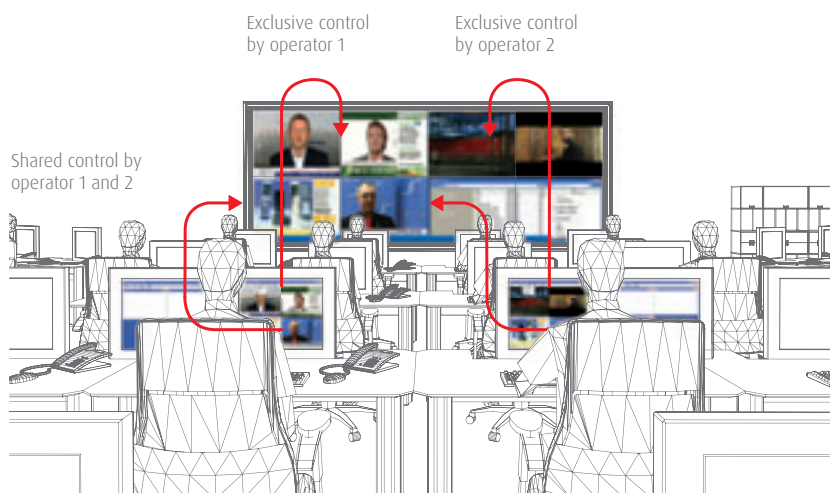
Without snapping.



With snapping.



The snapping functionality makes sure that no pixels are lost.



Possible scenarios:
Operator 1 can control region 1 and 3, Operator 2 can control region 2 and 3. Region 3 is used for alarm situations where both operators have to work together to handle the emergency.

Connect

Browse the network and select your user interface.

Control

Use the Sidebar to control your displays and sources, and create your favorite source sets.

Collaborate

Send your views to a networked display or video wall and share them with your colleagues.



Collaborate

Through the unique concept of Perspectives, CMS allows to make more efficient use of the control room display estate, and to share user-defined information views with colleagues more efficiently.

Create a personal view

Barco's CMS software allows the operator to generate a local view of a multitude of sources (e.g. video, application screen data, external DVI feeds, etc.). By combining all these sources into a new perspective, users have a unique way to generate new knowledge.

Share your content with anyone

Once a personalized view has been created, the operator can send (push) it to any video wall, small display or PC with CMS loaded on it - with pre-approved access. The view can be shared privately with other operators or supervisors for collaboration or approval and then pushed on to more public group display walls locally or at remote locations.

Sharing Perspectives between manned and unmanned displays creates a multitude of collaboration possibilities. First it is no longer necessary to put a layout on a video wall if only one other operator has to see it. Second, from one workstation it is very simple to share a Perspective with a colleague. Whenever this colleague accepts the Perspective, it will be presented and now both of the operators can make changes or interact with sources in real time.

Collaborate locally and remotely

CMS is also able to bring up (pull) sources that are displayed at remote display walls or workstations with CMS loaded on them onto the local operator's screen. If required, the operator can push this remote view to the local video wall or any other PC with CMS loaded on it.

Full Software KVM with remote keyboard and mouse control

CMS has also an integrated remote keyboard and mouse control (KVM functionality) which allows operators to view and take over the active control of the server, PC or display. Centralized permissions as well as local access control prevent unwanted intrusions. An operator can now use the local keyboard to control a server application directly on the display wall or open an application view locally on the workstation. This enables many operators to interact with the display wall sources at the same time, with the best possible ergonomics.



The Sidebar allows to easily access, control, configure and display sources, displays, Perspectives and Decorators.

Support and maintenance

The system's central backup and restore makes sure that the configuration is safe. Software upgrades can be installed centrally, from one location, and can then be performed over the network for all clients. Asset management tools give an overview of the overall system health and generate regular reports on the system performance. An extensive logging mechanism provides support engineers with the best possible tool to optimize performance, perform fault tracking and do general maintenance.

Integration via API

All CMS functionality is also made available through an Application Programmer's Interface (API). With the API, higher level software can use CMS as a middleware service to complement its operations in an integrated fashion. Examples of higher level software include, but are not limited to Video Management Software, Command and Control software, traffic management software, SCADA control software, access control software, and device control software from Crestron/AMX.

- **Button panel for quick layout changes**
- **Simple user interfaces**
- **Barco Apollo backwards compatible**
- **Fully featured web service API**
- **Simple TCP/IP API**

About Barco

Barco, a global technology company, designs and develops visualization products for a variety of selected professional markets. Barco has its own facilities for Sales & Marketing, Customer Support, R&D and Manufacturing in Europe, North America and Asia Pacific. Barco (Euronext Brussels: BAR) is active in more than 90 countries with about 3,200 employees worldwide. Barco posted sales of 638 million euro in 2009.



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Barco is an ISO 9001 registered company.
Technical specifications are subject to change without prior notice.
The latest version of this product sheet can be found on www.barco.com

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