



Manufacturer: Barco N.V.  
 Model: CRP-software with CMS or BCMS server  
 Device Type: System Control

### CONTACT SUPPORT:

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<b>NOTES:</b>	See CMS Quick Start Guide for explanation on used terminology

### GENERAL INFORMATION

<b>SIMPLWINDOWS NAME:</b>	Barco Control Room Proxy
<b>CATEGORY:</b>	System Control
<b>VERSION:</b>	1.1
<b>SUMMARY:</b>	Controls the CMS and BCMS server through the Barco Control Room Proxy software.
<b>GENERAL NOTES:</b>	<p>This module is used to control a CMS or BCMS server via TCP/IP.          This is done by communicating with the Barco Control Room Proxy software.          The port used is 9595(decimal).          After connecting, the module will automatically retrieve the list of displays, layouts, perspectives, sources &amp; tiles.</p>
<b>CRESTRON HARDWARE REQUIRED:</b>	2-Series controller with Ethernet.
<b>SETUP OF CRESTRON HARDWARE:</b>	<p>TCP/IP:          Install a TCP/IP Client          Use port 9595(decimal).          Be sure to set up the IP table to specify the IP address where Barco Control Room Proxy is running.</p>
<b>VENDOR FIRMWARE:</b>	Barco Control Room Proxy V1.1.6
<b>VENDOR SETUP:</b>	Install and configure Barco Control Room Proxy
<b>CABLE DIAGRAM:</b>	None



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**CONTROL:**

<u>Signal/Function Name</u>	<u>D,S,A</u>	<u>Digital, Serial, Analog signal property definition.</u>
Connected	D	Pulse to activate the initialization routine. Should be connected to TCP/IP Client Connected.
GetDisplayList	D	Pulse to retrieve the list of displays. Filter\$ is used.
GetDisplayListLong	D	Pulse to retrieve the list of displays with the resolution added to the names. Filter\$ is used.
Select_display_#	D	Pulse to select a display on the current page.
ClearSelectedDisplay	D	Pulse to clear the selected display.
GetLayoutList	D	Pulse to retrieve the list of layouts for a selected display. DisplayName\$ and Filter\$ are used.
GetActiveLayoutList	D	Pulse to retrieve the list of active layouts for a selected display. DisplayName\$ and Filter\$ are used.
LoadLayout	D	Pulse to load a layout for a selected display. LayoutName\$ and DisplayName\$ are used.
UnLoadLayout	D	Pulse to unload a selected layout for a selected display. DisplayName\$ is used.
Select_layout_#	D	Pulse to select a layout on the current page.
ClearSelectedLayout	D	Pulse to clear the selected layout.
GetPerspectiveList	D	Pulse to retrieve the list of perspectives. Filter\$ is used.
GetSharedPerspectiveList	D	Pulse to retrieve the list of perspectives for the selected display. DisplayName\$ and Filter\$ are used.
LoadPerspective	D	Pulse to load a perspective for a selected display. PerspectiveName\$, DisplayName\$ are used.  if UseLoadPersXYWH is low TileNumber is used if higher than 0.  if UseLoadPersXYWH is high X, Y, Width and Height are used.
CreatePerspective	D	Pulse to create a perspective.



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		<p>PerspectiveName\$ and Filter\$ and used.          Filter\$ is used to add an additional tag.          In the case where Filter\$ isn't empty,          UseCreatePersWH is used          if UseCreatePersWH is low:          Default Width and Height are used.          if UseCreatePersWH is high          Width and Height are used.</p>
<b>UnloadPerspective</b>	D	<p>Pulse to unload a perspective for a selected display.          PerspectiveName\$ and DisplayName\$ are used.</p>
<b>UnloadAllPerspectives</b>	D	<p>Pulse to unload all perspectives for a selected display.          DisplayName\$ is used.</p>
<b>Select_perspective_#</b>	D	<p>Pulse to select a perspective on the current page.</p>
<b>ClearSelectedPerspective</b>	D	<p>Pulse to clear the selected perspective.</p>
<b>GetSourceList</b>	D	<p>Pulse to retrieve the list of sources. Filter\$ is used.</p>
<b>CreateWebSource</b>	D	<p>Pulse to create a web source.          SourceName\$ and URL\$ is used.          Filter\$ is used to add an additional tag.</p>
<b>CreateVideoSource</b>	D	<p>Pulse to create a video source.          SourceName\$ and VideoURL\$ are used.          Filter\$ is used to add an additional tag.</p> <p>AudioUrl\$ is used to specify the audio Url of the source.</p> <p>In the case where AudioUrl\$ is not empty, DeviceUrl\$ and hostRdc\$ are also used.</p>
<b>CreateScreenSource</b>	D	<p>Pulse to create a screen source.          SourceName\$, PCHost\$,          setTypePRO, setTypeVNC, setTypeSCN are used.</p> <p>Filter\$ is used to add an additional tag.</p> <p>PassWord\$ is used to specify the password for the VNC, PRO or SCN server.          When password\$ is used, port will also be used and needs to be specified.</p> <p>When a SCN source is used, Password\$ is mandatory.</p>
<b>LoadSourceOnPerspective</b>	D	<p>Pulse to load a source on a selected perspective.          PerspectiveName\$, SourceName\$ are used.</p> <p>if UseLoadPersXYWH is low          TileNumber is used if higher than 0.</p> <p>if UseLoadPersXYWH is high          X, Y, Width and Height are used.</p>



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<b>RemoveSourceFromPerspective</b>	D	Pulse to remove a source from a selected perspective. PerspectiveName\$, SourceName\$ are used.
<b>Select_source_#</b>	D	Pulse to select a source on the current page.
<b>ClearSelectedSource</b>	D	Pulse to clear the selected source.
<b>GetTileList</b>	D	Pulse to retrieve the list of tiles. Filter\$ is used.
<b>GetDisplayAppliedTile</b>	D	Pulse to retrieve the currently applied tile on the display. DisplayName\$ is used
<b>GetPerspectiveAppliedTile</b>	D	Pulse to retrieve the currently applied tile on the perspective. PerspectiveName\$ is used
<b>UpdateDisplayTile</b>	D	Pulse to apply the tile to the display. DisplayName\$ and TileName\$ are used.
<b>UpdatePerspectiveTile</b>	D	Pulse to apply the tile to the perspective. PerspectiveName\$ and TileName\$ are used.
<b>CreateAndApplyTileOnDisplay</b>	D	Pulse to create and apply the tile to the display. DisplayName\$, TileName\$, TileSizeRows and TileSizeColumns are used.
<b>CreateAndApplyTileOnPerspective</b>	D	Pulse to create and apply the tile to the perspective. PerspectiveName\$, TileName\$, TileSizeRows and TileSizeColumns are used.
<b>RemoveSourceFromPerspectiveTile</b>	D	Pulse to remove a source from the given tile of a perspective. PerspectiveName\$ and TileNumber are used.
<b>Select_tile_#</b>	D	Pulse to select a tile on the current page.
<b>ClearSelectedTile</b>	D	Pulse to clear the selected tile.
<b>ApplyDecoratorToASourcePerspective</b>	D	Pulse to apply a decorator to a source within a perspective. PerspectiveName\$, SourceName\$ and DecoratorName\$ is used.
<b>RemoveDecoratorFromASourcePerspective</b>	D	Pulse to remove a decorator from a source within a perspective. PerspectiveName\$, SourceName\$ and DecoratorName\$ is used.
<b>DisplayNextPage</b>	D	Pulse to show the next page of displays.
<b>DisplayPreviousPage</b>	D	Pulse to show the previous page of displays.
<b>LayoutNextPage</b>	D	Pulse to show the next page of layouts.
<b>LayoutPreviousPage</b>	D	Pulse to show the previous page of layouts.
<b>PerspectiveNextPage</b>	D	Pulse to show the next page of perspectives.



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PerspectivePreviousPage	D	Pulse to show the previous page of perspectives.
SourceNextPage	D	Pulse to show the next page of sources.
SourcePreviousPage	D	Pulse to show the previous page of sources.
TileNextPage	D	Pulse to show the next page of tiles.
TilePreviousPage	D	Pulse to show the previous page of tiles.
DisplayName\$	S	Serial signal for the display name
LayoutName\$	S	Serial signal for the layout name
SourceName\$	S	Serial signal for the source name
PerspectiveName\$	S	Serial signal for the perspective name
TileName\$	S	Serial signal for the tile name
DecoratorName\$	S	Serial signal for the decorator name
UseLoadPersXYWH	D	High to indicate that signals X, Y, Width and Height are taken into account when using LoadPerspective.
UseCreatePersWH	D	High to indicate that signals Width and Height are taken into account when using CreatePerspective.
X	A	Analog signal to set the left position.
Y	A	Analog signal to set the top position.
Width	A	Analog signal to set the width.
Height	A	Analog signal to set the height.
TileNumber	A	Analog signal to set the tile number. Numbering starts at 1.
TileSizeRows	A	Analog signal to set the number of rows when creating a tile.
TileSizeColumns	A	Analog signal to set the number of columns when creating a tile.
Filter\$	S	Serial signal to set the filter text, used in several commands.
ClearFilter	D	Pulse to clear Filter\$
Url\$	S	Serial signal to set the web URL.



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VideoUrl\$	S	Serial signal to set the video URL.
AudioUrl\$	S	Serial signal to set the audio URL.
DeviceUrl\$	S	Serial signal to set the device URL.
HostRdc\$	S	Serial signal to set the HostRdc.
PCHost\$	S	Serial signal to set the PC Host.
SetTypePRO	D	High to indicate that PRO-server is used.
SetTypeVNC	D	High to indicate that VNC-server is used.
SetTypeSCN	D	High to indicate that SCN-server is used.
Password\$	S	Serial signal to set the password.
Port	A	Indicates the port number. PRO: 4950 VNC: 5900
DisableSorting	D	High to indicate that the lists of names don't need to be sorted.
SetWallOn	D	Pulse to turn wall on.
SetWallOff	D	Pulse to turn wall off.
GetWallStatus	D	Pulse to retrieve the status of the wall.
GetWallHealthSummary	D	Pulse to retrieve the health summary of the wall.
GetSelectedWall	D	Pulse to retrieve the number of the selected wall.
SetSelectedWall	D	Pulse to use the selected wallnumber. The WallNumber signal is used
SetProjectorOn	D	Pulse to turn on one Projector. The projector number is set with ProjectorNumber.
SetProjectorOff	D	Pulse to turn off one Projector. The projector number is set with ProjectorNumber.
GetProjectorStatus	D	Pulse to retrieve the status of one Projector. The projector number is set with ProjectorNumber.
GetWallAlarms	D	Pulse to retrieve the alarm list of the wall.



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GetPreferredSourceList	D	Pulse to retrieve the preferred source list.
SetWallSource1Preferred	D	Pulse to set all projectors to use input 1
SetWallSource2Preferred	D	Pulse to set all projectors to use input 2
SetProjectorSource1Preferred	D	Pulse to set one projector to use input 1. The projector number is set with ProjectorNumber.
SetProjectorSource2Preferred	D	Pulse to set one projector to use input 2. The projector number is set with ProjectorNumber.
GetNumberOfWalls	D	Pulse to retrieve the number of walls.
GetNumberOfProjectors	D	Pulse to retrieve the number of projectors.
GetProjectorRows	D	Pulse to retrieve the number of rows in the wall.
GetProjectorColumns	D	Pulse to retrieve the number of columns in the wall.
UpdateBrightnessControl	D	Pulse to update the brightness parameters of the wall. Uses MaxBrightnessUserConstraint and MinBrightnessUserConstraint.
MaxBrightnessUserConstraint	A	Indicates the maximum brightness value
MinBrightnessUserConstraint	A	Indicates the minimum brightness value
UpdateBrightnessModeECO	D	Pulse to set the brightness mode to economic.
UpdateBrightnessModeMax	D	Pulse to set the brightness mode to maximum.
RenewColorAdjustment	D	Pulse to renew the color adjustment
GetBrightnessList	D	Pulse to retrieve the brightness parameters.
UpdateCRPBCMWall	D	Pulse to send a command to the Control Room Proxy to update his data. This is done whenever the new wall is configured in BCM or the existing wall is updated.
ProjectorNumber	A	Analog signal to set the projector number.
WallNumber	A	Analog signal to set the wall number.
PrefSourcePrev	D	Pulse to show the next page of preferred sources.
PrefSourceNext	D	Pulse to show the previous page of preferred sources.
StatusNextPage	D	Pulse to show the next page of projector states.



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StatusPrevPage	D	Pulse to show the previous page of projector states.
From_crp\$	S	Serial signal to be routed from the TCP/IP Client.

**FEEDBACK:**

Busy	D	High while communication is in progress.
Initializing	D	High while initializing after connection is made.
Selected_Display_#	D	High to indicate the selected display on the current display page.
DisplayName\$_#	S	Serial signal containing the display names on the current page.
Selected_Layout_#	D	High to indicate the selected display on the current display page.
LayoutName\$_#	S	Serial signal containing the layout names on the current page.
Selected_Perspective_#	D	High to indicate the selected perspective on the current perspective page.
PerspectiveName\$_#	S	Serial signal containing the perspective name on the current page.
Selected_source_#	D	High to indicate the selected source on the current source page.
SourceName\$_#	S	Serial signal containing the source names on the current page.
DisplayAppliedTileName\$	S	Serial signal containing the applied tile on the display.
PerspectiveAppliedTileName\$	S	Serial signal containing the applied tile on the perspective.
Selected_tile_#	D	High to indicate the selected tile on the current tile page.
TileName\$_#	S	Serial signal containing the tile names on the current page.
NumberOfDisplayPages	A	Indicates the number of pages with displays
CurrentDisplayPage	A	Indicates the current display page.
NumberOfLayoutPages	A	Indicates the number of pages with layouts.





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CurrentLayoutPage	A	Indicates the current layout page.
NumberOfPerspectivePages	A	Indicates the number of pages with perspectives.
CurrentPerspectivePage	A	Indicates the current perspective page.
NumberOfSourcePages	A	Indicates the number of pages with sources.
CurrentSourcePage	A	Indicates the current source page.
NumberOfTilePages	A	Indicates the number of pages with tiles.
CurrentTilePage	A	Indicates the current tile page.
SelectedDisplayName\$	S	Serial signal indicating the selected display name.
SelectedLayoutName\$	S	Serial signal indicating the selected layout name.
SelectedSourceName\$	S	Serial signal indicating the selected source name.
SelectedPerspectiveName\$	S	Serial signal indicating the selected perspective name.
SelectedTileName\$	S	Serial signal indicating the selected tile name.
ErrorString\$	S	Shows the message returned from Barco Control Room Proxy in case of an error.
WallHealthStatus	A	Indicates the health status of the wall. 1: Health : ok 2: Health : warning 3: Health : error
SelectedWall	A	Indicates the selected wall.
ProjStatus	A	Indicates the status of a single projector. 1: Projector : on 2: Projector : idle
ProjConnStatus	A	Indicates the connection status of a single projector. 1: Connection : ok 2: Connection : not responding
ProjHealthStatus	A	Indicates the health status of a single projector. 1: Health : ok 2: Health : warning 3: Health : error
ProjLedHours	A	Indicates the runtime hours of the LEDs
ProjRunTimeHours	A	Indicates the runtime hours of the projector.



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NumberOfWalls	A	Indicates the number of walls.
NumberOfProjectors	A	Indicates the number of projectors.
NumberOfProjectorRows	A	Indicates the number of rows used in the wall.
NumberOfProjectorColumns	A	Indicates the number of columns used in the wall.
ReMaxBrightnessUserConstraint	A	Indicates the maximum brightness set through user constraint.
ReMinBrightnessUserConstraint	A	Indicates the minimum brightness set through user constraint.
BrightnessModeECO	D	High to indicate the brightness mode set to ECO.
BrightnessModeMax	D	High to indicate the brightness mode set to maximum.
MaxBrightnessControlParamValue	A	Indicates the maximum brightness.
MinBrightnessControlParamValue	A	Indicates the minimum brightness.
WallBrightness	A	Indicates the wall brightness.
PreferredSource1_#	D	High to indicate if preferred source is set to 1
PreferredSource2_#	D	High to indicate if preferred source is set to 2
NumberOfPrefSourcePages	A	Indicates the number of pages with preferred sources.
CurrentPrefSourcePage	A	Indicates the current preferred source pages.
Proj_Status_#	A	Indicates the status of each projector.
Proj_ConnStatus_#	A	Indicates the connection status of each projector.
Proj_HealthStatus_#	A	Indicates the health status of each projector.
Proj_LEDHours_#	A	Indicates the LED runtime hours of each projector.
Proj_RuntimeHours_#	A	Indicates the runtime hours of each projector.
NumberOfStatePages	A	Indicates the number of pages with states.
CurrentStatePage	A	Indicates the current state pages.
To_crp\$	S	Serial signal to be routed to the TCP/IP Client.



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### PARAMETERS:

<b>HostID\$</b>	P	Name of Host used in the communication.
<b>NumberOfDisplaysPerPage</b>	P	Number of displays to show on one page. Maximum is 32.
<b>NumberOfLayoutsPerPage</b>	P	Number of layouts to show on one page. Maximum is 32.
<b>NumberOfPerspectivesPerPage</b>	P	Number of perspectives to show on one page. Maximum is 32.
<b>NumberOfSourcesPerPage</b>	P	Number of sources to show on one page. Maximum is 32.
<b>NumberOfTilesPerPage</b>	P	Number of tiles to show on one page. Maximum is 32.
<b>NumberOfStatesPerPage</b>	P	Number of projector states to show on one page. Maximum is 32.
<b>NumberOfPrefSourcesPerPage</b>	P	Number of preferred sources to show on one page. Maximum is 32.

### TESTING:

<b>OPS USED FOR TESTING:</b>	4.008.0008 / 1.011.0023
<b>SIMPL WINDOWS USED FOR TESTING:</b>	4.03.15.00
<b>DEVICE DB USED FOR TESTING:</b>	67.07.003.00
<b>CRESTRON DB USED FOR TESTING:</b>	52.05.013.00
<b>SYMBOL LIBRARY USED FOR TESTING:</b>	508
<b>SAMPLE PROGRAM:</b>	Barco Control Room Proxy Demo
<b>REVISION HISTORY:</b>	V. 1.0 – Original Release V. 1.1 – Updated for 3-series