Platform/Software	Package version	Status	Release date
ICMP Software	1.3.1.5	Service Release	October 17th, 2017

1 Introduction

1.1   About this document

This document provides the release notes of the different versions of the ICMP software and it should be used by anyone wishing to install a software version of ICMP. The release note is provided in the software update package and is available on the secured Barco website (https://www.barco.com).

1.2   About ICMP

The Integrated Cinema Media Processor (ICMP) stores, decrypts and decodes the cinema content and delivers it to the projector in a usable format, all integrated into a single assembly placed directly in the projector.

1.3   About this release

Version 1.3.1.2 is the new version of the ICMP firmware available for both hardware revisions:
- R7681061
- R7681270 and R7681271 (no mezz)

On top of support of HDMI 2.0 on ICMP Hardware revision R7681270 and R7681271 (no mezz), this version enables support of HDR for HDMI2.0, gives you access to Dark Screen Detection settings (available in Barco Communicator), and enables the "Play Now" playback mode.
Version 1.3.1.5 is a service release.

2 ICMP Software Release Notes

2.1   Version 1.3.1.5 – October 17th, 2017

In order to have access to all 1.3.1.5 features and improvements, please install:

Software	Version	Reference
Barco Communicator Software		
Barco Communicator (Windows)	5.7.0 or higher	R33002303 /29
Barco Communicator (Mac)	5.7.0 or higher	R33002302M /26
Barco Communicator (Linux)	5.7.0 or higher	R33002303L /26
Barco Commander Software		
Barco Commander (Windows)	1.7.0 or higher	R33051752 /12
Barco Commander (Mac OS X)	1.7.0 or higher	R33051754 /12
Barco Commander (Linux)	1.7.0 or higher	R33051755 /12
Clone package		
Clone package for Galaxy 4K projectors without Infitec	dpBaseCloneIcmp_Galaxy4K.2.7.8*	R33051784 /03
Clone package for Galaxy 4K projectors with Infitec	dpBaseCloneIcmp_Galaxy4K.2.7.8*	R33051769 /05
Clone packages for 2K/4K projectors	dpBaseCloneIcmp.2.8.1*	R33051762 /07
Clone packages for 4K Laser projectors	dp4K-60L_BaseCloneIcmp.2.7.7*	R33051796 /03
Cinema Controller Software		
Cinema Controller for L series	1.4.4 or higher	

Cinema Controller for B and C series	2.4.42 or higher	
Cinema Controller for CLP series	2.4.42 or higher	
Cinema Controller for S and E series	1.10 or higher	
Other files		
Configuration files (Automation for CPXXX)	-**	R33051807 /02
Hardware	**Version**	**Reference**
ICMP***	Rev 19 or higher	R98011351
ICMP+****	Rev 19 or higher	R7681270 and R7681271

* See Barco Communicator manual for more info on cloning.

** Those xml files can be merged to the existing ICMP Automation cues library. Once merged, it is advised to change the IP address of the new added device.

*** **ONLY required for LTC !** All previous HW rev. are fully compatible with version 1.2.5, but will not output LTC.

**** This hardware revision has two HDMI 2.0 ports (needed to display HDMI 2.0 formats).

2.1.1   Feature Improvements

1.3.1.5 (SERVICE RELEASE)
§ Fix a bug on network connection drop/reconnect timeout settings that could lead to failing ingest jobs

1.3.1.4 (SERVICE RELEASE)
§ Fix an ingest timeout issue
§ Fix an issue on displaying Test Patterns on Laser Phosphor projectors
§ Improve the behavior of the "Black Screen Detection" on startup

1.3.1.3 (SERVICE RELEASE)
§ Fix a "Play Now" issue when trying to play an Interop CPL with Closed Caption
§ Automatic selection of the target color space for HDMI 2.0 inputs
§ Fix reported HDD size and total storage capacity

1.3.1.2 (INITIAL RELEASE)
§ Improve syslog download
§ Fix a dimming issue
§ Prevent saving a show with an empty title

1.3.1.1 (BETA RELEASE)
§ Improve "Play Now" robustness

1.3.1.0 (BETA RELEASE)
§ The "Black Screen Detection" mechanism is now fully editable. Please use Barco Communicator 5.6 or higher in order to be able to access those settings
§ HDR can be enabled on HDMI2.0 ports. You have to enable this feature by adding a license using Barco Communicator
§ "Play Now" is now available in the ingest panel. The selected CPL will be directly loaded in the player, ready to be played (without being ingested). Please refer to Barco ICMP User manual for a full description of this feature and its limitations

1.3.0.1 (SERVICE RELEASE)
§ Enable support of HDMI 2.0 ports on R7681270 and R7681271 hardware revision

1.2.7.12 (SERVICE RELEASE)

§ Improve DMD timings for 4K formats on DisplayPort
§ Fix a missing vertical pixel line in the SCC

1.2.7.11 (SERVICE RELEASE)
§ New timeout mechanism with new log messages in case the ICMP becomes non-responsive
§ Fix of potential software bug in USB monitoring
§ Blanking control improvement for DP2K-6E with new log messages
§ Improvement for satellite communication
§ Fix of 3D sync controller wrong reporting

1.2.7.10 (SERVICE RELEASE)
§ Fix an issue with RSC formatter
§ Fix a database issue that could cause slow response of the ICMP (and front end disconnection)
§ Fix an issue when a Immersive sound KDM is available for a non-immersive sound CPL

1.2.7.9 (SERVICE RELEASE)
§ Fix an ATMOS CPL playout issue that could occurs on a start/stop action

1.2.7.8 (SERVICE RELEASE)
§ Fix a memory leak on playlist xml generation
§ Improve the behavior of the black screen detection

1.2.7.7 (SERVICE RELEASE)
§ Added support of new DMDs for S serie projectors

1.2.7.6 (SERVICE RELEASE)
§ Fix an issue where HDMI was not working for some sources on 4K projectors
§ Fix an issue on HDMI resizing
§ Fix an issue with player actions on a 1sec black clip
§ Improve API behavior when trying to delete a content that doesn't exist anymore

1.2.7.5 (SERVICE RELEASE)
§ Fix an issue when reaching the end of a show with a specific ATMOS CPL
§ Disable black image detection on slave projectors
§ Fix a CRC EDID issue on HDMI port

1.2.7.4 (SERVICE RELEASE)
§ Fix a subtitle issue
§ Increase the selection timeout validation for an ATMOS CPL

1.2.7.3 (SERVICE RELEASE)
§ Added support of SLP/BLP projector types
§ Fix an InsertShow intermission issue on DCPs with PNG Subtitles

1.2.7.2 (INITIAL RELEASE)
§ Enable AuroMax playout
§ Implemented API commands to read and change the status of GPIO
§ Improved reliability of SNMP sub-agent
§ Added a command to verify the local storage partition table, available in Communicator
§ Added synchronization of storage files before entering the standby mode
§ Improved communication with Close Caption devices
§ Add black image detection at the output of the projector. When image is black during more than 10

seconds while a content is playing or an alternative input is selected, an error is triggered

1.2.7.1 (BETA RELEASE)
§ Enable resizing for 4K HFR content
§ Fix an audio issue SMPTE content
§ Add support for 21.81 fps (low frame rate CPL)

1.2.7.0 (BETA RELEASE)
§ Fixed synchronized Display Port playout in a multi-projector setup
§ Improved Display Port video path latency predictability
§ Improved logging on the formatter interface & communication

1.2.6.3 (INITIAL RELEASE)
§ Enable ATMOS playout with LDM
§ Full support for BLP and SLP projectors

1.2.6.2 (INITIAL RELEASE)
§ Fix an issue with cues executed at zero offset
§ Fix a sync issue between video and sound on some HFR CPLs
§ Improve show management
        o Reject a show if the duration of a clip is equal to 0
        o Reject a show it if contains no clip
        o Write error details to system logs in case of an error during ingest of a show

1.2.6.0 (BETA RELEASE)
§ LDM : a brand new KDM mechanism with a counter associated to a time window

1.2.5.8 (SERVICE RELEASE)
§ Extension to the 1.2.5.6 fix for the communication issues causing color flashing/drop outs, covering very
   specific corner cases as well
§ Fix a communication issue with Sony Close Caption device

1.2.5.6 (SERVICE RELEASE)
§ Fix some color issues

1.2.5.4 (SERVICE RELEASE)
§ Fix an issue with LTC-SCC files when performing an upgrade to 1.2.5
§ Fix an issue with the size of the ICMP error messages list

1.2.5.2 (INITIAL RELEASE)
§ LTC: ICMP is now generating by default a LTC sync (Linear Time Code) on "Sync - Out" port, according to
   SMPTE-12M-1 standard. ICMP HW rev. 19 or higher is required to output this sync signal (**R98011351**)
§ Alternative Input Clip : New kind of Special Clips to switch directly to an alternative input (HDMI, Display
   Port)
§ Improve show total duration calculation, including the intermission duration
§ New emergency cue : "On Player Stopped On Error", preventing leaving rooms in the dark
§ Standardize the "Pause" UI behavior between Barco WebCommander and Commander
§ Grouping Cues in the Show Editor
§ Added support of Interop CPLs with Close Caption
§ Restrictions on the choice of ip addresses are lowered. The ip address of LAN1 or LAN2 can now be in the
   same range as the projector LAN.
§ Fix a HDMI source behaviour. It was possible that, during an HDMI playout, the image was switching to an

internal test pattern.

2.1.2 Limitations

Features not yet activated:
- § LTC : SMPTE12M-1 does not support HFR or interlaced field
- § 3G-SDI: color space setting via PCF file only when not available in stream payload.
- § HDMI :
  - o Some image artefacts might appear when switching from one HDMI 4K format to another or rebooting/reconnecting the HDMI device
    - § WORKAROUND: reapply the correct HDMI macro.
  - o Select a TestPattern when HDMI source is selected is not working
  - o Side-by-side full sources are not supported
  - o 480i sources are currently not supported
- § Display Port : 3D formats on single display port are not supported (2048x1080 and 1920x1080)
- § Alternative content decoder (MPEG-2 DCPs are readily supported)
- § Cannot parse drives with more than 100.000 files.
- § No content must be selected in the player in order to change the ICMP player settings or in order to reset the ICMP factory settings.
  - o Audio-channel settings can be changed while playing.
- § When using the USB Tethering from your tablet to connect to the ICMP, your tablet will not charge when in use (or charge very slowly).
- § Post Production Communicator: CLUT is not supported and no color adjustment on some internal test patterns
- § The IP address range 192.168.254.xxx is also not allowed for ICMP Lans or Projector IP address. Please refer to the Barco Communicator Manual for more details
- § DCP-Publishing:
  - o The FTP client has to be configured in "Binary mode" in order to be able to retrieve files from the ICMP.
  - o When using the FXP protocol (between an ICMP and a TMS for example), it is recommended to transfer one file at a time in order to avoid any file corruption.
  - o FTP username and password are not editable by users.
- § It's not possible to perform an update from ICMP 1.1.5 to ICMP 1.2.6.1 (this update will lead to a timeout). In order to perform such an update, we have to install ICMP 1.2.5.X first.
- § For exertnal usb drives, NTFS file system partitions are limited to 2TB
- § Play Now feature is limited to the following sources :
  - o NFS
  - o USB3.0 (no recovery available)

2.1.3 Software defects

Barco puts utmost efforts in testing software, however the errors listed below or other issues may occur. Please contact your Barco support in case of any trouble.

- § Some USB keys and USB3.0 drives may sometimes fail to be recognized by the ICMP.
  - o WORKAROUND: for USB3.0 drives try high-quality cables (gold plated connectors).
- § There is no warning when a show with invalid content or invalid/missing KDM is scheduled.
- § In some cases an intermission cue that includes a Stop action (e.g. to switch to an alternative content input), may result in this intermission being played in a loop continuously, instead of only once.
  - o WORKAROUND: make sure to delay the first stop by one second. E.g. this cue configuration will

properly execute an intermission of 15 seconds (delays in msec):

PLAYER	Stop	1000
PROJECTOR	Macro->DP	5000
PROJECTOR	Macro->MediaPlayer	18000
PLAYER	Play	20000

§ Dual Projection setup have some limitations :
  o While doing the setup, please only use numerical IP addresses to define the Slave setup (hostname is not working).
  o Text error messages for the same error are different on Master and Slave interfaces.
  o It is possible to configure both Master and Slave to display the same eye. With such a configuration the stereoscopic effect is lost, but no specific warning is displayed.
  o If the Master ICMP is going offline (hard shutdown, power failure, …), playback will continue on the slave projector.
    § WORKAROUND: please connect with Commander/Web Commander on the slave projector to stop the playback manually.

§ Escape Projection setup have some limitations :
  o If the Master ICMP is going offline (hard shutdown, power failure, …), playback will continue on slave projectors.
    § WORKAROUND: please connect with Commander/Web Commander on slave projectors to stop the playback manually.
  o If one of the two slave projector is going offline (hard shutdown, power failure, …), playback will continue on the other slave projector until the next transition. Then the playback will be stop on both slaves.
    § WORKAROUND: please connect with Commander/Web Commander on the running slave projector to stop the playback manually.
  o As an Escape DCP is always SMPTE compliant, Interop content (including subtitles) are not supported.
  o When the master ICMP is in a "Paused" state, Slaves projectors are still displaying "Playing" as a status (but they are paused, waiting for the Master ICMP to restart the playback).

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