



From
ST-VS/MKP1

Product Management

Nuremberg
20.04.2015

Release Letter

Product:	<i>VIDEOJET decoder 7000</i> <i>VJD-7000</i>
Version:	<i>Firmware 54.8.01</i>

This letter contains latest information about the above mentioned product.

1 General

This firmware is a feature release for the multi-stream, dual-monitor HD Decoder VIDEOJET decoder 7000.

Changes since last release are marked in [blue](#).

Note:

This firmware update requires FW 54.8.0 installed.

VIDEOJET decoder 7000 running FW 54.7.0 must have applied FW 54.7.1 to correct a partitioning issue on the internal storage before it accepts firmware 54.8.x files to be uploaded.



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2 Applicable products:

- VJD-7000

3 New Features

- An RCP message has been added to be sent whenever the decoder spots a FREEZE of the incoming video stream. This allows an external program to intercept this message and trigger controls of a supervisory safety system.

4 Changes

- An issue with multi-channel encoders VIDEOJET multi 4000 and VIP-X16XF-E under high load where connections have been dropped sporadically has been fixed.



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5 Restrictions; Known Issues

- IntuiKey keyboard is not supported.
- IP Matrix license is not supported.
- Analogue monitors are not supported.
- ~~AES Encryption is not yet supported.~~
- Connecting encrypted streams without proper signalling may result in crashing the software decoder instance, resulting in black video displayed.
- Alarms will not be signaled with a red border around the cameo if connection was established using CONNECT_PRIMITIVE.
- Using CONNECT_PRIMITIVE via TCP is not possible.
- CONNECT_PRIMITIVE does not support "first available" feature.
- Audio may remain audible despite layout change to other than single view.
- RCP+ command CONF_ALARM_CONNECT_TO_IP is not supported.
- Alarm connection does not support audio.
- Maximum password length is 19 characters.
- ONVIF 2.0 conformance is not yet provided with this firmware release. (Earlier ONVIF specifications do not include decoder support yet.)
- VJD-7000 is supported by BVMS 4.5.x only with a single monitor.
- Audio level control is only possible with active speakers connected.
- IP matrix remote monitor is only possible with UDP. TCP not supported.

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6 System Requirements

For configuration purposes:

- Configuration Manager 5.01 or newer

For operation purposes:

- Bosch Video Client 1.4 SR3 or newer
- Bosch Video Management System 4.5.5 or newer

For 3rd party software integration check with IPP.



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7 Previous Revisions

7.1 *New Features with release 54.8.0*

- The number of decoders can be configured to match licensing in management systems. The number of allowed decoders per monitor is calculated from the number of decoders divided by the number of monitors. Layout selection will be restricted to those with number of cameos not exceeding the number of allowed decoders per monitor by 20%.
- A video stretch mode allows using the full cameo space when accepting distortion.
- Resolutions up to 8 MP are supported but may fall back to I-frame-only display mode if system runs into performance issues.
- Cameo 1:1 selection added to allow 3x2 layout on a 16:9 or 16:10 monitor.
- Connection text displayed within empty cameo can be hidden.
- Hidden Web page added to reset password via our Service & Support.

7.2 *Changes with 54.8.0*

- VideoSDK overlay icons are only displayed if metadata display is enabled.

7.3 *Change with 54.7.1*

Due to a manufacturing problem, the 16 GB DOM (Disc-On-Module), that holds the firmware and should provide space for uploading a firmware upgrade file, was only partitioned to usable 8 GB, thus not providing sufficient space for newer firmware to be uploaded.

This firmware does correct the partitioning and allows upgrading to e.g. FW 54.8.0 once applied. It does not change anything in FW 54.7.0 nor does it bring any new features or fixes issues.



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7.4 Features with initial release 54.7.0

- VJD-7000 displays high definition and standard definition video from cameras and encoders using H.264 or MPEG-4 encoding at up to 60 images per second over IP networks.
- VJD-7000 provides bi-directional G.711 audio for the video stream shown in single view on the first monitor
- VJD-7000 provides three monitor outputs, DVI-I, HDMI and DP; where two out of them can be used simultaneously.
- Monitors are automatically discovered and set for optimal display performance.
- Monitor layouts can be switched independently for each monitor.
- Upright monitors (portrait mode) are supported.
- Video window (cameo) aspect ratio can be set to **4:3**, 16:9, 9:16 or 3:4.
- Active camera connections and layout are stored and automatically reconnected after reboot. To avoid deadlock in case of an overload situation the automatic reconnect will be deactivated after VJD-7000 was forced into reboot for 3 times within 10 minutes.
- TCP connections are supported.
- Discovery port is configurable.
- Cameo distance is configurable.
- VJD-7000 can be used as an extended monitor to IP Matrix in single and quad view.
- The RCP+ command CONNECT_PRIMITIVE is supported.
- VJD-7000 is able to display VCA metadata.
- Configuration is made using the Configuration Manager.
- The number of decoders presented in capabilities is configurable to regulate the consumption of VMS licenses. Default value is 25.
- System access is password-protected with two levels.
- The system firmware can be upgraded remotely.
- Operation is possible with
 - Bosch Video Client 1.4 SR3 and
 - Bosch Video Management System 4.5.5

Note:

VJD-7000 is supported by BVMS only with a single monitor.



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Decoding Performance

- VJD-7000 is capable of decoding streams according to the following table:

<i>Encoding</i>	<i>Streams</i>	<i>Resolution</i>	<i>Max. bit rate</i>
H.264 HD	4	1080p30	10 Mbps
	6	1080p30	5 Mbps
	8	1080p30	2.5 Mbps
	4	720p60	10 Mbps
	6	720p60	5 Mbps
	8	720p60	2.5 Mbps
	6	720p30	10 Mbps
	10	720p30	5 Mbps
	14	720p30	2.5 Mbps
H.264 SD	12	4CIF/432p	5 Mbps
	20	4CIF/432p	2.5 Mbps

System

- VJD-7000 is based on the latest Intel H77 Express Chipset on a Mini-ITX board with a Core i3 CPU running at 3.1 GHz.
- The system has a 16 GB Flash module as boot medium for operating system and application.
- The system runs a tailored and Bosch-branded Microsoft Windows 7 Embedded operating system, which has been designed to be highly resistant to viruses and other malware, and Monitor Wall software based on HD-capable VideoSDK 5, both fine-tuned for High Definition video decoding support.
- It uses a Gigabit Ethernet port.
- Monitor Resolutions are:
 - DVI-I 1920 x 1200 max (WUXGA) at 60 Hz
 - HDMI 1920 x 1200 max (WUXGA) at 60 Hz
 - DP 2560 x 1600 max (WQXGA) at 60 Hz
- The system can be directly mounted to the back of a monitor, using the VESA mount options of 75 mm (2.953 in) or 100 mm (3.937 in).

For detailed technical specification please refer to the datasheet.