Release Letter

<table>
<thead>
<tr>
<th>Product:</th>
<th>MPEG-ActiveX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version:</td>
<td>6.33.0138</td>
</tr>
</tbody>
</table>

This letter contains latest information about the above mentioned software version.

MPEG-ActiveX 6.33.0138 is a maintenance release based on the former release 6.33.0127 and incorporates updated VCA plug-ins.

It can be used for live viewing and playback and is required for VCA configuration via Web browser interface for CPP6, CPP7 and CPP7.3 cameras with firmware versions 7.50 and beyond.

Changes since last release are marked in blue.
1 Changes

- Includes latest plug-ins for configuration of Intelligent Video Analytics 7.50 and Essential Video Analytics 7.50, embedded in camera platform firmware 7.50.

2 System Requirements

Minimum configuration with the following specifications:
- Intel Pentium Dual Core, 3.0 GHz
- 2 GB RAM
- 100 Mbps Ethernet
- GPU: DirectX 11 compatible

High performance configuration with the following specifications:
- CPU: Intel 5th generation Core i CPU or better
- RAM: min. 8 GB
- LAN: Gigabit Ethernet
- GPU: Nvidia Quadro (Kepler- or Maxwell-based)

Hardware Decoding:
- Windows 8.1 or higher with Intel GPU HD2000 or better
- Windows 10 with NVIDIA graphics adapters (driver version 378.66 and higher)

Note:
- Systems incorporating both GPUs will not support hardware decoding.

Supported platforms are:
- Windows 7 SP1 (Business, Home; 32-bit, 64bit)
- Windows 8.1 (32bit, 64bit)
- Windows 10 (32bit, 64bit)
In addition to the system requirements listed above, MPEG-ActiveX 6.30 shall be able to run on the following graphics cards:

- **ATI**
  - FirePro V2460 V3700 V3800 V3900 V4800 V4900 V5700 V5800 V5900 V7900 V8800
  - FireGL V5600 V7200
- **NVIDIA**
  - Quadro series based on Fermi, Kepler and Maxwell
- **Onboard Graphics**
  - Typically supported starting with first generation of the Intel Core i-series

Additional graphics cards may be qualified and supported.

All Microsoft updates and hotfixes are expected to be installed on target PCs, graphics card drivers are also expected to have the latest officially released version.
3 Restrictions; Known Issues

- This version only supports Bosch IP encoders/cameras which are based on firmware 4.10 or higher. To ensure smooth and consistent replay the recordings must have been created with these firmware versions.
- The Web GUI of BVIP products with FW 4.10 and below is not fully functional with this MPEG-ActiveX version. MPEG-ActiveX 4.4x must be used instead.
- VIDOS-NVR, VJ800x, VIP-X1 and VIP-X2 devices are not supported.
- Bosch MPEG-2 encoders are not supported.
- For 32-bit color mode the PC must support YUV overlay.
- Streaming works only if a RCP+ connection is established. If multicast streaming is enabled, a device can only connect to the stream if a RCP+ connection exists. Although the multicast address is enabled, the IP address must be set in addition.
- Size estimation does not work properly if there are gaps in recording.
- Replay on limited bandwidth connections (e.g. DSL) does not work reliably.
- File open commands when loading exports fail under rare conditions. In these cases the operation fails without delivering a return code.
- If application runs out of memory calling up cameos might result in crashes. Hosting applications must prevent these conditions, e.g. by limiting the number of cameos that can be instantiated.
- The methods for setting the Databits and the BaudRate for PTZ cameras are not supported by BVIP devices.
- Time synchronization between multiple cameos might deviate some seconds during fast forward/backwards operation. Switching back to real time restores accurate synchronization.
- Cameos might flicker during resize operations.
- No watermarking (neither old nor new) for replay on webpage
- When viewing transcoded replay with video content analysis (VCA) overlays, the VCA overlays may be faded out after 10s in pause-mode (VSDK-2789)
- If AAC does not work for firmware 5.50 devices, use G.711
- Matrox Parhelia (and all other non-Direct3D 9 adapters) are not supported (Matrox Parhelia 128MB does not support dynamic textures and Radeon 9200 has only DirectX 8.1 support)
- H.263 half-decode mode is not supported
- NVIDIA drivers < 191.87 not supported with multiple graphics adapters
- Smooth reverse replay is only supported up to a maximum GOP length of 30 frames, for larger GOPs some frames will not be shown in reverse replay
- The simplified forensic search for any motion and motion in field may return more results when the search is executed on the device because only then all motion data (Flow, IVA, and Motion+) is available in parallel
- When viewing transcoded replay with video content analysis (VCA) overlays, the VCA overlays may be faded out after 10s in pause-mode
• Continuous timeline searches on local recordings of BVIP devices with firmware 5.60 may flicker for alarm recordings when an http or https URL is used for device proxy connection.
• Image Adjustment does not work for panoramic cameras.
• Click-on mode does not work for ROI Intelligent Tracking.
• In case of the selection 'client authentication with certificate' is activated exclusively, there will be no live video displayed in Internet Explorer 11, despite successful authentication. Only M-JPEG stream selection will show images.

To work around this limitation, start IE 11 as administrator.
4 Previous Revisions

4.1 Changes with 6.33.0127

- Includes latest plug-ins for configuration of Intelligent Video Analytics 7.10 and Essential Video Analytics 7.10, embedded in camera platform firmware 7.10.

4.2 Changes with 6.32.0093

- Includes latest plug-ins for configuration of Intelligent Video Analytics 6.60 and Essential Video Analytics 6.60, embedded in camera platform firmware 6.60.

4.3 New Features with 6.30.0062

- Supports hardware-accelerated decoding of H.264 and H.265 video streams on Windows 10 with NVIDIA graphics adapters (driver version 378.66 and higher).

4.4 Changes with 6.30.0062

- Error handling has been made more rigorous by introducing error frames. These might lead to previously incorrectly decoded non-key-frames not to be displayed anymore. This change was made since some hardware decoders do not support signaling of defective frames and in order not to render defective frames that may be visually indistinguishable from correct ones.
- The background image that is presented until a connection is established has changed from carrying a Bosch logo to a neutral grey background.
4.5 Changes with 6.13.0084

- An issue has been fixed where a black cameo was displayed when replay was paused and window resized.
- An issue was fixed where IVA counter display was not showing in FW 6.41.
- Stability improvements by fixing several race conditions and access violations.
- Improved resilience to invalid data received via the network.

4.6 New features with 6.12.0078

- Updated VCA plugins to support Intelligent/Essential Video Analytics.

4.7 Changes with 6.12.0078

- Connect operation after remove operation not lost anymore.
- Size limitation added to reception of various network responses.
- Updated FFMPEG to version 3.3.2.

4.8 New features with 6.11.0060

- Support of H.265 decoding.
- Support of cameras running FW 6.4x.
- Updated VCA plugins to support Intelligent/Essential Video Analytics.

4.9 Changes with 6.11.0060

- The requirement for a minimum latency for video has been removed as this prevents to control the latency of streams where the display time has been set to the future.
- The FFMPEG decoder component has been upgraded to 3.2.2, providing improvements in performance and stability.
4.10 Changes with 6.04.0259

- An issue, where the Nvidia driver crashes with both Intel and Nvidia GPUs were active, has been fixed.
- An incorrect application of window aspect ratio on snapshot size when dewarping is disabled has been fixed.
- Support for cropping video left and right has been added.
- All restrictions for event searches on BVIP devices (not VRM) for HTTP and HTTPS control connection protocols now apply also for the RCP+ connection protocol for devices with firmware 5.80 and higher.

4.11 New Features with 6.02.0221

- Hardware-accelerated decoding of H.264 video streams on PCs with Intel HD Graphics chips.
- BVIP firmware 6.30 devices are now supported.

4.12 Changes with 6.02.0221

- Due to use of DirectX 11 old hardware with feature level below 11 will not be supported. Older MPEG-ActiveX version is recommended on such hardware.

For older history information please refer to MPEG-ActiveX 5.9x release notes.