EIQMPPRN

eIQ Media Processing Pipeline Release Notes

Rev. 4 — 10 January 2024 **Release notes**

Document information

Information	Content
Keywords	eIQ, Media, Media Processing, Processing Pipeline, Library
Abstract	This document is the release notes for the Media Processing Pipeline software library for MCUs.

1 Overview

This document contains information about the content, new features, and limitations of the eIQ Media Processing Pipeline. eIQ Media Processing Pipeline is a software library for constructing media-handling components graphs for Vision-specific applications on NXP hardware.

2 Development tools

The MCUXpresso SDK is compiled and tested with these development tools:

- MCUXpresso IDE, version is 11.9.0
- GCC Arm Embedded, version is 12.2.Rel1

3 Supported development system

This release supports boards and devices listed in table below. The boards and devices in bold were tested in this release.

Table 1. Supported boards and devices

Development boards	MCU devices
MIMXRT1170-EVK, MIMXRT1170-EVKB	MIMXRT1176AVM8A, MIMXRT1176CVM8A, MIMXRT1176DVMAA, MIMXRT1171DVMAA, MIMXRT1171AVM8A,MIMXRT1171CVM8A, MIMXRT1173CVM8A, MIMXRT1175DVMAA, MIMXRT1175AVM8A, MIMXRT1175CVM8A, MIMXRT1172DVMAA, MIMXRT1172AVM8A, MIMXRT1172CVM8A
EVKB-IMXRT1050	MIMXRT1052DVL6B, MIMXRT1052DVL6B, MIMXRT1052CVJ5B, MIMXRT1051DVJ6B, MIMXRT1051CVL5B, MIMXRT1052DVJ6B, MIMXRT1051DVL6B, MIMXRT1052CVL5B, MIMXRT1051CVJ5B

4 New features

The following features are added to this release:

- Added API allowing to change run-to-completion tasks cycle duration.
- Added Open-CMSIS-Pack support.

5 Fixed issues

- Fixed pipeline execution performance regression with TensorFlowLite Micro.
- Fixed pipeline execution performance regression with DeepViewRT.
- Fixed examples using the mpp_api_params_t structure (un-initialized variable).
- Removed unused `mpp_element_split()` API function.

6 Known issues

The following are the known issues:

- The PXP driver does not support RGB888 as output format.
  Note: *The RGB888 output format is obtained with a combination of the PXP conversion and a CPU conversion from BGR888 to RGB888.*
- TFLite, DeepViewRT, and GLOW inference elements support only a single instance.

- IAR and MDK toolchains are not supported.
- PXP output window left position does not work.
- `camera_mobilenet_view_tflm` example application freezes with armgcc toolchain in debug configuration with XMCD (only DCD works).

7 Revision history

Table 2 summarizes the changes done to this document since the initial release.

Table 2. Revision history

Revision number	Date	Substantive changes
0	30 June 2022	Initial release
1	06 September 2022	Updated for MCUXpresso SDK 2.12.1
2	09 January 2023	Updated for MCUXpresso SDK 2.13.0
3	27 July 2023	Updated for MCUXpresso SDK 2.14.0
4	10 January 2024	Updated for MCUXpresso SDK 2.15.000

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