

These release notes for the Video and Image Processing Suite of MegaCore® functions, v7.1 contain the following information:

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## System Requirements

The Video and Image Processing Suite is part of the MegaCore IP library which is distributed with the Quartus® II software.



For system requirements and install instructions, refer to the *Quartus II Installation & Licensing for Windows* manual or the *Quartus II Installation & Licensing for UNIX and Linux* manual on the [Altera Literature website](#).



The Video and Image Processing Suite is supported on Windows and Linux only and is not currently available for UNIX.

## New Features & Enhancements

The following list outlines new features and enhancements in this release:

- New polyphase mode provided by the Scaler permits scaling with a user defined numbers of taps and phases and either user defined or preset coefficients.
- The Scaler supports run-time control of input and output resolutions and clipping area.
- In polyphase mode, the Scaler supports run-time reloading of coefficients.
- The Scaler now provides full control of coefficient and result precision, and makes more efficient use of DSP blocks.
- A more flexible and efficient Color Space Converter gives full control of coefficient and result precision and uses fewer DSP blocks.
- All Video and Image Processing Suite MegaCore functions support arbitrary input and output bit depths in the range 4–20 bits (4–16 bits in the case of the Gamma Corrector).

- Arbitrary input and output resolutions selected at generation time are supported by all Video and Image Processing Suite MegaCore functions.
- All Video and Image Processing Suite MegaCore functions provide preliminary support for Arria GX.

## Errata Fixed in This Release

The following errata were fixed in this release:

- The previous Suite version was not supported in Quartus II software.
- 64-bit Linux operating systems were not supported.
- Unnecessary Avalon clock and reset ports were generated.
- The Deinterlacer had a restricted base address range.
- Memory initialization file missing from generation report for Scaler.

Known errata for the Video and Image Processing MegaCore functions are listed in a separate errata sheet.



For the most up-to-date errata, refer to the *Video and Image Processing Suite, v7.1 Errata Sheet* on the [Errata Sheets](#) page of the Altera literature website.

## Interface Changes

The following changes have been made to the MegaCore function user interfaces:

- The signals in Avalon-MM master and slave ports used by Video and Image Processing Suite MegaCore functions have changed.
- The control port register maps have changed because all cores with control now have both a `Go` and a `Status` register.
- The Alpha Blending Mixer control port is now 16 bits wide.



Refer to the Interfaces chapter in the *Video and Image Processing Suite User Guide* for more information about these changes.

## How to Contact Altera

Although every effort has been made to ensure that this version of the Video and Image Processing Suite works correctly, if any problems occur, please use the following contact information to communicate issues to the appropriate Altera representative.

Information Type	Contact <i>Note (1)</i>
Technical support	<a href="http://www.altera.com/mysupport/">www.altera.com/mysupport/</a>
Product literature	<a href="http://www.altera.com">www.altera.com</a>
Altera literature services	<a href="mailto:literature@altera.com">literature@altera.com</a>
FTP site	<a href="ftp://ftp.altera.com">ftp.altera.com</a>

*Note to Table 1*

(1) You can also contact your local Altera sales office or sales representative.

## Revision History

Table 2 shows the revision history for the *Video and Image Processing Suite*.

Version	Date	Revision
7.1	May 2007	<ul style="list-style-type: none"> <li>• Scaler: New polyphase mode supports a user-defined number of taps and user-defined or preset coefficients. Run-time control of input/output resolutions and clipping area. Run-time reloading of coefficient in polyphase mode. Full control of coefficient and result precision. More efficient DSP block usage.</li> <li>• Color Space Converter: Full control of coefficient and result precision. More efficient DSP block usage.</li> <li>• All cores: Input/output resolution and bit depth can be set at compile time.</li> <li>• Added preliminary Arria™ GX device support.</li> </ul>
7.0	December 2006	Added preliminary Cyclone III device support.
6.1	December 2006	<ul style="list-style-type: none"> <li>• Included as part of the Quartus II v6.1 software MegaCore IP library.</li> <li>• Added preliminary Stratix® III device support.</li> <li>• Avalon® Streaming and Avalon Memory-Mapped interface support.</li> <li>• Reduced MegaCore function generation time.</li> <li>• Enhancements to the 2D FIR Filter and Scaler MegaCore functions.</li> </ul>
1.0	April 2006	First release of the Video and Image processing Suite.



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