

This document addresses known errata and documentation issues for the MegaCore® functions in the Video and Image Processing Suite, v7.1. Errata are functional defects or errors, which may cause the Video and Image Processing Suite MegaCore function to deviate from published specifications. Documentation issues include errors, unclear descriptions, or omissions from the current published specifications or product documents.

Table 1 shows the issues that affect the Video and Image Processing Suite, v7.1.

Table 1. Video and Image Processing Suite, v7.1 Issues		
Applicability	Issue	Page
All MegaCore functions	Output Directory Must be Same as Project Directory	1
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Currently, there are no specific errata for the Color Space Converter, Chroma Resampler, 2D FIR Filter, 2D Median Filter, Deinterlacer, or Line Buffer Compiler MegaCore functions.



For existing 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.

Video and Image Processing Suite Issues

Altera has identified the following issues that affects all MegaCore functions in the Video and Image Processing Suite:

Output Directory Must be Same as Project Directory

The output directory specified in the MegaWizard interface must be the same as the project directory.

Affected Configurations

This issue affects all MegaCore functions in the Video and Image Processing Suite.

Design Impact

If the output directory of a MegaWizard interface generated file is different from the project directory, an error is issued the generation fails to complete.

Workaround

Specify the same directory for your output files and the Quartus II project.

Solution Status

This issue will be fixed in a future release of the Video and Image Processing Suite.

Cannot Interrupt Hardware Generation

The **Cancel** button in the MegaCore function Generation Report window may not immediately take effect because the "Generating hardware..." stage will only respond to an interrupt once it has completed.

Affected Configurations

This issue affects all MegaCore functions in the Video and Image Processing Suite.

Design Impact

The hardware generation phase must be allowed to complete. This may take several minutes. You can then exit from the generation report window and re-invoke the MegaWizard Plug-In Manager to update the MegaCore function.

Workaround

You must wait until the hardware generation phase has been completed.

Solution Status

This issue will be fixed in a future release of the Video and Image Processing Suite.

MegaCore Function Issues

Altera has identified the following issues that affect specific MegaCore functions in the Video and Image Processing Suite:

M4K Write Operations May Fail for Cyclone II Devices

M4K block write operations may fail for Cyclone II devices with the Alpha Blending Mixer and Gamma Corrector MegaCore functions.

Affected Configurations

This issue affects configurations using Cyclone II devices and the Alpha Blending Mixer or Gamma Corrector MegaCore function.

Design Impact

The following error message is issued:

```
Error: M4K memory block WYSIWYG primitive
"vhdl_gam:vhdl_gam_inst|TTA_X_smem_av:gamma_lut|altsyn
ncram:\dsl:altsyncram_component|altsyncram_rvh1:auto_
generated|ram_block1a0" utilizes the dual-port dual-
clock mode. However, this mode is not supported in
Cyclone II device family in this version of Quartus II
software. Please refer to the Cyclone II FPGA Family
Errata Sheet for more information on this feature.
```

Workaround

If you are targeting any affected revision (Rev a or b of the 2c35 or Rev a of any other Cyclone II part), set the CYCLONEII_SAFE_WRITE variable to RESTRUCTURE. This causes the Quartus II software to fix the problem at a cost in M4Ks and F_{max} . If you are using a newer revision device, set the CYCLONEII_SAFE_WRITE variable to VERIFIED_SAFE which turns off the error message. Refer to the *Cyclone II FPGA Family Errata Sheet* for more information about this issue.

Solution Status

This issue has been fixed for the latest silicon devices but remains an issue if you are using the earlier silicon.

Long Generation Time for the Scaler

The generation time for some configurations of the Scaler MegaCore function can be several hours.

Affected Configurations

This issue affects configuration of the Scaler MegaCore function with more than 9 horizontal and 9 vertical taps used in conjunction with run-time control.

Design Impact

Selecting run-time control in conjunction with a large number of taps (more than 9) can cause long generation times. For example, a scaler with 16 horizontal taps and 16 vertical taps may take 3 hours to generate.

Workaround

There is no workaround.

Solution Status

This issue will be fixed in a future release of the Video and Image Processing Suite.

Precision Must be Set When Using Lanczos Coefficients

When configuring the Scaler MegaCore function, you must choose the correct coefficient precision when using Lanczos coefficients.

Affected Configurations

This issue affects configurations of the Scaler MegaCore function using the polyphase algorithm with Lanczos coefficients.

Design Impact

The MegaCore function fails to generate.

Workaround

If you select polyphase mode with Lanczos coefficients, you must set the coefficient precision to be signed with 1 integer bit. Fraction bits can be set within the full range available in the GUI.

Solution Status

The coefficient precision restriction will be enforced in future releases of the Video and Image Processing Suite.

Clipping Cannot be Enabled if Resolution Less Than Window

Clipping in the Scaler cannot be enabled when the input resolution is smaller than the value shown for the clipping window.

Affected Configurations

This issue affects configurations of the Scaler MegaCore function where the input resolution is smaller than the disabled value for the clipping window (default 1024×768).

Design Impact

Clipping cannot be enabled.

Workaround

Set the input resolution to be larger than the clipping resolution. Then enable clipping and make the clipping window small enough to be inside the required input resolution. Set the input resolution as required.

Solution Status

This issue will be fixed in a future release of the Video and Image Processing Suite.

Scaler with Run-Time Control Can Give Incorrect Data

The Scaler MegaCore function can produce too little data and incorrect values in a small set of configurations.

Affected Configurations

This issue affects the v7.1 Scaler MegaCore function with run-time resolution control enabled and the input/output sizes set to be unequal. (These sizes refer to the maximums that values that can be set during run time.) All filtering algorithms are affected.

Design Impact

When the run-time registers are set to scale video streams down, there may be too little output data and the data will have incorrect values.

Workaround

Set the input/output resolutions to be the same, and large enough to cope with the largest values you intend to set at run time.

Solution Status

This issue will be fixed in a future release of the Video and Image Processing Suite.

Contact Information

For more information, contact Altera's mySupport website at www.altera.com/mysupport and click **Create New Service Request**. Choose the **Product Related Request** form.

Revision History

Table 2 shows the revision history for the *Video and Image Processing Suite, v7.1 Errata Sheet*.

Version	Date	Errata Summary
1.1	August 2007	Added errata for "Scaler with Run-Time Control Can Give Incorrect Data"
1.0	May 2007	First release of this errata sheet



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