



Blimp

OSD development tool

By  **ANALOG
DEVICES**

Release notes for Blimp 3.9 SP1

Pr 1.0

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1 Revision History

Date	Version	Blimp version	Description
12 Feb 2016	1.0	3.9SP1	<ul style="list-style-type: none">• Issue fixes and improvements in ADV 7625 framework and ADV800X framework.• 32MB flash support on ADV800x• Fbox color allocation and deallocation in RAM on ADV7625• Multi page and Multi resolution support for ADV7625 static osd framework

2 Released Package

Blimp_3.9SP1 Folder contains “Setup.msi” windows Installer Package and Application executable “setup.exe”

3 Supported Operating Systems

This release of Blimp software is supported on the following operating systems:

- Windows 7 Professional, Enterprise, or Ultimate (32and 64-bit)

4 System Requirements

Verify that your PC has these minimum requirements for the Blimp installation:

- 2 GHz single core processor;3.3GHZ dual core or better recommended
- 1 GB RAM; 4GB or more recommended
- 2 GB available disk space
- One open USB port

5 Obtaining Technical Support

You can reach Analog Devices software and tools technical support in the following ways:

- Post your questions in the Video Community at EngineerZone<http://ez.analog.com/community/video>
- Email tools questions to processor.tools.support@analog.com

- Submit your questions to technical support directly via <http://www.analog.com/support>
- Contact your Analog Devices Sales office or authorized distributor

6 Version information:

Blimp Version	3.9.5886.28108 SP1
800x Framework Version	3.9.5886.27949 SP1
7625 Framework Version	3.9.5886.27954 SP1
7625 Static Framework Version	3.9.5886.27948 SP1

7 New features and Fixes

7.1 ADV7625 Static OSD Framework

The new framework selection is available to create a static page OSD with ADV7625 in master mode. The option is called “ADV7625 Static OSD framework” when creating project. When setting the ADV7625 in master mode, the OSD data is read directly from flash to ADV7625 OSD RAM.

With this framework, all pages are static meaning that each page is stored in the flash and read as is with no animation or text scrolling features.

The components currently supported for the static page framework are:

- OsdBox
- OsdProgressBar
- OsdHistogram
- OsdLabel
- OsdTboxImage
- OsdImage

Multi page and multi resolution supported as like ADV7625 framework

7.1.1 Benefit

- The framework makes the code size in MCU much smaller. The Blimp generated code only generates API to command ADV7625 to read data from flash.
- RAM requirements are much lower since it does not manipulate data from flash.

7.2 New features in ADV800x Framework

7.2.1 32MB flash support added in Blimp

Since ADV8003/5 has only 3 bytes addressing for 16MB, the data must be divided into 2 blocks of maximum size of 16MB compressed data. Each block must be compressed separately.

The serial flash contains a SPI command to select first segment memory (0 - 16MB) and second segment of memory (16-32MB).Each data block must be written in their respective segment.

7.2.2 Fbox / Tbox/ Ibox Color Allocation and Deallocation in RAM

The Fbox / Tbox / Ibox Color is allocated in RAM only if it is visible and the color RAM register is deallocated when the Fbox / Tbox / Ibox visible is set to false. All color are deallocated in RAM when the Active Page is set to Visible false.

7.3 Issue Fixes and Improvements in ADV7625

7.3.1 Property Navigator: Component size doesn't update properly while changing the resolutions.

The focus is changed to page while changing the resolution.

7.3.2 OSDPage: Page Visible is not working

The Page visible property is removed in Property navigator.

7.3.3 OSDBox: OSDBox get overlap with OSDProgressBar as individual boxes

The Progress bar priority is changed and overlapping is resolved.

7.3.4 OSDLabel: Text get mismatch in emulator window when compare to canvas window

Corrected the handles for Multiglyph Font when using multiline.

7.3.5 OSDProgressBar: Progress bar border is seperated from the component when we set border width as 255

Created a condition when border size is greater than width.

7.3.6 Segmentation fault occurs while image visible is set as false

The Icon RAM is deallocated when the image visible is set to false.

7.3.7 OSDListbox horizontal scrolling is not working if we initiate the OSDListbox in load

stringLength set function call added in allocatestring function

7.3.8 Image size exceeds warning message appeared even the size is 30x30

The image used contains more than 32 colors. Hence the Error message has been changed for this image to "Image Color exceeds the maximum limit".

7.3.9 Tbox color and Ibox color allocation and deallocation in ADV7625 for Multipage

The Color for the Tbox and Ibox is allocated when visible and deallocated while hiding.

7.3.10 Vertical text alignment for High resolution font in OSDLabel

The vertical text is correctly aligned for High resolution fonts.

7.3.11 Exception Happened in TBox image animation

The code is updated for TBox image RAM allocation and deallocation

7.3.12 OSDTboxImage: Segmentation fault occurs when animation is in progress

The code is updated for TBox image RAM allocation and deallocation

7.3.13 Exception Happened if we write " *cancel=true;" in remote key event

Boolean parameter is added as a second parameter in remote key press event.

7.3.14 Unhandled Exception occurs while saving the project using "Save project as..." option.

substring calculation index overflow handled

7.3.15 Exception happened in Demo Project under settings Page

The code is updated for TBox image RAM allocation and deallocation

7.3.16 OSDListbox: Segmentation fault occurs while browsing the listbox

The code is updated for flash memory buffer in Host.cs for external

7.3.17 7625 Demo: Exception Happened when browsing the contents

The code is updated for flash memory buffer in Host.cs for external

7.3.18 OSDLabel: Segmentation fault occurs while changing the text through Remote key press

The code is updated for flash memory buffer in Host.cs for external flash

7.3.19 Exception Happened in TBox image animation

The code is updated for TBox image RAM allocation and deallocation

7.3.20 Arithmetic exception occurs if we set the Total Bins, Max Value and Min Value as "0" in code

Logic added to avoid arithmetic exception

7.3.21 Color Table Index not found :The error message is not user friendly and not display image names

Color table name is added in warning message

7.3.22 Exceeded the fbox color maximum limit warning message occurs even if we use only 3 colors.

Fbox color allocation and deallocation is implemented and this release has the issue fix.

7.3.23 Segmentation fault occurs while emulating the project with osdListbox

Color table array size is updated correctly in firmware

7.3.24 OSDPage: Page name is not get updating after renaming it.

Whenever changing property values of page/component user should provide enter key or mouse click in same layout pane or other layout pane.

7.4 Issue Fixes and Improvements in ADV800X:

7.4.1 Horizontal Scrolling: The scrolling duration mismatched between two resolutions

The frame value for the animation should change for each video frame rate (vfr) then only text scrolling speed should be same. So user has to set scrolling speed in that way for the string/text.

$$\text{frame} = \text{scrollLength} * \text{Vfr} / \text{scrollLength} * \text{scrollingspeed}.$$

7.4.2 OSD Binary is not updated when we set Flash size settings under project settings

Flash size checking added while emulating

7.4.3 Same image resource added to flash binary two times

New bitmap object is created in process image crc function

7.4.4 OSDSlider: Resume layout is not working properly in code window

OSEG_updateComponent(hObj) is called when calling resume Layout

7.5 Fixes and Improvements in ADV7625 Static OSD

7.5.1 OSDLabel: Multiline is not working for emulator window, but it works in canvas window

Multiline feature is added for static osd in emulator window.

7.5.2 OSDImage and OSDTboxImage get junk in emulator if uncheck all the unicodes

When no range is selected, error message is added.

7.5.3 OSDLabel: Font size above 13pt, the text is not visible in emulator window

The verticalGlyphfont value is not correctly stored in buffer. This is fixed by storing the correct value in buffer.

7.5.4 OSDLabel: Vertical line spacing is increased in emulator window when compared to canvas window

Adjusted the line spacing as per the font height.

7.5.5 TboxImage: 256x16 pixel image is cropped as 16x16 pixel in emulator window

The Height and Width of the TboxImage is assigned wrongly. It has been modified.

7.5.6 OSDLabel: Text is not visible in emulator window when multiline enable is set as TRUE.

Since the page name is not added for multiline, the label is not visible. Added the page name in the instruction buffer for multiline.

7.5.7 Multi page and multi resolution should be supported as like 7625 framework including 4K2K resolution The Page visible property is removed in Property navigator.

The Add item is enabled for Static OSD and Multipage and Multi resolution support

7.5.8 "Copy resolution" option is missing in StaticOSD framework

"Copy resolution" option is enabled

7.5.9 Scaling property is not working properly in emulator window.

Location of the component is properly updated as per scalar value

7.5.10 OSDLabel: Exception occurs if we click the Property Navigator->scrolling finish event in osdLabel.

Since the events are not supported for 7625 Static OSD, the events are disabled.

7.5.11 4k2k option is missing in copy resolution drop down box in canvas window

4K2K option is added in copy resolution for 7625 Static OSD

8 Known Issues and Limitation:

8.1 Known Issues

Some known issues and limitation described below is planned to be fixed in next release 3.9 SP2

8.1.1 ADV800xframework:

- Space from Left for OSDLabel Text is more in canvas window compared with emulator window

Place an osdLabel in canvas window and set large font size >12 and other settings like Size: 347, 93, TextAlign: Middle Left&Location: 0, 0, now the label content has more

space from left corner in canvas window. Run the Emulator and the label content have less space from left corner compared with canvas window.

- Blimp will take long time to generate the binary files for large projects.

The project created used 10 different fonts with full Unicode range (0x0 - 0xffffd). So fonts build will take considerable amount of time. It is expected behavior. We can save time without doing clean project command every time when project modified.

8.1.2 ADV7625framework:

- All components: Location X&Y property will not work in code window
Open a new project and add any component. Write the code for location change of the component and emulate it. There will not be any change in location of the component in emulator window

- Compilation error will occur if we rename the page name in canvas window
- OSDLabel text characters will merge if we set orientation as vertical
- Priority will not work in code window for OSDLabel component
- Exception may happen while changing the copy resolution option when we are in code window
- Exception may happen if we change the font in runtime
- "FATAL - TboxImage: Maximum 8 color is supported" may happen if we use Ibox image as TBox image

Create a project, add Image component and add 10 images with each image use one color, now the color table added as 10 colors. Add Tbox image component and add single image from image library. Use existing image used for ibox and emulate it. In emulator window, the fatal warning will occur but we used only single color image. It might happen because of TBox image color table is same as IBox image color table

- Switching between the pages may cause the black border inside the OSDProgressBar.
- "INFO - Exceeded the fbox unit maximum limit - 64" warning message may appear if we use 63 Fbox in a page.
- Sometimes components will not display in correct position in emulator window while switching resolutions

8.2 Limitations:

8.2.1 ADV7625framework:

- Z layer priority has some limitation for the combination of same components.
For overlapping two F boxes or T boxes or I boxes, the lower z layer value overlaps with a higher number, means smaller number will be drawn on top of bigger number.

If there are two F boxes or T boxes or I boxes have same z layer value, the one with the lowest address at the instruction RAM will be drawn on top.

8.2.2 ADV7625 Static OSD framework:

- Property of the components can only be set. But it cannot be changed dynamically since code window is not supported and very little code will be generated for this framework.
- Only one API to load a page and one page at a time. Key press events are not supported
- Multi languages string loading feature is not supported.
- Label scrolling and Image animation is not supported
- It supports 32 icons only where it could support 64 icons.

8.2.3 ADV800X framework:

- While adding more components to designer, designer become heavier and mouse cursor takes some time to stabilize the location of the component in ADV800X framework