



Blimp

OSD development tool

By  **ANALOG
DEVICES**

Release notes for Blimp 3.9 Rel

Rev 1.0

Advantiv[™]
Analog Devices

No part of this document may be reproduced in any form or by any means without the prior permission of Analog Devices Inc.

Contents

1	Revision History.....	6
2	Released Package	6
3	Supported Operating Systems	6
4	System Requirements	6
5	Obtaining Technical Support	6
6	Version information:	7
7	New features and Fixes	7
7.1	ADV7625 Static OSD Framework.....	7
7.1.1	Benefit.....	7
7.2	Fixes and Improvements in ADV7625.....	7
7.2.1	OSDListbox: Issue total item size 150 and text size required more than 1 Tbox to render	7
7.2.2	OSDHistogram: Emulator struck at GDB window as segmentation fault when passing third invalid parameter to SetBinsvalue() in code window	8
7.2.3	Emulator window gets flickered or some screen corruption appears for a second and recovers when changing resolution	8
7.2.4	OSDLabel Component text are not clear when Tbox scaling is applied to max value and then size is reduced to small when resizing in canvas window	8
7.2.5	“Changes detected “warning message appears even when no changes were made, even a simple open-close in the project file	8
7.2.6	Emulator window:-Label Text Location Y slightly moved down when scaling is enabled	8
7.2.7	For scaling value 2, List box text/contents are visible outside of the component in canvas window	8
7.2.8	External Flash: Blimp "Programming data" not updated while loading flash.....	8
7.2.9	OSDImage: No difference is observed for the animation speed 10 and 15 in emulator window	8
7.2.10	OSDListbox: Hidden Items Feature is not supported in 7625	8
7.2.11	Unicode settings: In custom range we need to add the "0x" for each value, can't able to enter the value "20" directly instead of have to enter "0x20"	9
7.2.12	OSDPage: Page size is not updated properly when using copy resolution.....	9
7.2.13	OSDLabel set visible in animation Enabled changed event.	9
7.2.14	OSDLabel: spacing between the vertical text is larger in emulator when compared to canvas	9

7.2.15	Code Window: Exception happened if we call show page API from load event	9
7.2.16	OSDListbox: Item Index is wrongly updated while scrolling.	9
7.2.17	OSDListbox: Item text suspended while scrolling.	9
7.2.18	OSDLabel: readtextW is not working while using page manager.....	9
7.2.19	OSDLabel horizontal scrolling get interrupt when osdListbox get vertical scroll ...	9
7.2.20	OSDListbox: Item texts are not visible while vertical scrolling.	9
7.2.21	OSDListbox: Item text are not visible properly in emulator window	9
7.2.22	OSD Label: Scrolling content affects the non-scrolling contents.....	10
7.2.23	Emulation slow down if we choose build settings as "Internal" in settings	10
7.2.24	Language settings: Characters are corrupted in ADI DEMO while selecting the languages multiple times	10
7.2.25	OSDLabel: The characters are moving right/left for a moment while scrolling enabled and Text Repeat on condition	10
7.2.26	OSDListbox: Highlighted event index values are updated wrongly .Please use the attached project.....	10
7.2.27	OSDImage: Irrelevant message appeared in canvas window	10
7.2.28	Advanced Settings:Black fin flash memory programming: binary file name is wrong in data file path text area	10
7.2.29	Hangup occurred when we large OSD binary(1 MB binary) is flashed	10
7.2.30	Canvas window is small for few seconds while we reopen any project.....	10
7.2.31	"MINGW is not properly installed in C:\MinGW" message displayed while cancel the emulation	10
7.2.32	OSDProgressBar current value get changed while changing the max value.....	10
7.2.33	TboxImage: "Image size exceeds the maximum size" warning message appear while adding 50x50 image.....	11
7.2.34	OSDLabel is not visible in emulator window if we set the orientation as vertical.	11
7.2.35	Color value is not effect in emulator window for static OSD.....	11
7.2.36	Exception happened if we try to copy the resolution in static OSD	11
7.2.37	OSDLabel disappeared from canvas window when the vertical orientation is set.	11
7.3	Issue Fixes and Improvements in ADV800X:	11
7.3.1	Installation: Unable to compile and run emulator when MinGW is not installed properly, message should be clearer as to what the problem is.....	11

7.3.2	OsdProgressBar: Unhandled exception throws and Empty Image/Filled Image preview Changed to Red color crossbar	11
7.3.3	Not able to Change location through mouse for all components whenever component visible property becomes false.....	11
7.3.4	Unhandled exception error occurs when try to create project name as "*" and then click create button.....	11
7.3.5	ExternalOSD:"System Argument exception: Parameter is not valid "error appears when ExternalOSD Resolution is set 32769, 32769/ -32770,-32770 via Customize option. 12	
7.3.6	OSDSlider:A small Cut is displayed in the bar image right side.....	12
7.3.7	OSDBox:Alpha difference mismatch in canvas and emulator window for OSDBOX.....	12
7.3.8	Caret image disappears when max and min value is set as int32	12
7.3.9	OSDImage: The scaled images are also added in image library.	12
7.3.10	When creating the list with over 128 item, focus disappears when scrolling through the cursor from item130 to 120	12
7.3.11	OSDMultiColumnListbox: Slider doesn't move when we change the Multicolumnlistbox location.....	12
7.3.12	Page Image Animation effect: noise occurs before fly in effect in the emulator window	12
7.3.13	OSDMulticolumnListbox: When setting multicolumnlistbox as "false" in code window using "key code", single item text is visible in emulator window.....	12
7.3.14	OSDImage: Initial frame image appears in output instead of Final frame sometimes while "onetime animation"	13
7.3.15	File Settings: In Blimp "Remote emulator" is in the view option, nothing happens when we selecting that option	13
7.3.16	OSDTextbox:Units should be in Hertz and not in frames as currently implemented. Document needs to be updated when this is corrected also. would apply to IPTTextbox also	13
7.3.17	Project Explorer: This (Resolution Size) property comes under the behavior instead of layout in blimp tool	13
7.3.18	Splash Page get deleted along with the folder.	13
7.3.19	Splash Page: unhandled exception occur while adding folder in splash page.....	13
7.3.20	Splash page is able to set as starting page and able to add two or more page by selecting Add items in project toolbar.....	13
7.3.21	OSDImage: Move up option in image settings is always highlighted.....	13

7.3.22	OSD Image: Two color depth options are added wrongly in Property Navigator..	13
7.3.23	ExternalOSD: User cant able to change the External OSD Resolution.....	13
7.3.24	ExternalOSD: ZLayer property is not working in Code window for ExternalOSD component	14
7.3.25	OSDImage: Current frame, Initial frame and Final frame is not working in code window.....	14
7.3.26	OSDSlider: Position value not works if we write the values in load event	14
7.3.27	OSDTextbox: Some noise occurs while changing the Alpha through Remotekey press	14
8	Known Issues and Limitation:	14
8.1	Known Issues	14
8.1.1	ADV800xframework:	14
8.1.2	ADV7625framework:	15
8.1.3	ADV7625 static OSD framework:.....	16
8.2	Limitations:	16
8.2.1	ADV7625framework:	16
8.2.2	ADV7625 Static OSD framework:	17
8.2.3	ADV800X framework:	17

1 Revision History

Date	Version	Blimp version	Description
20Nov 2015	1.0	3.9Rel	<ul style="list-style-type: none">• Release for Blimp new ADV7625 static OSD framework• Issue fixes and improvements in ADV 7625 framework and ADV800X framework

2 Released Package

Blimp_3.9Rel 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	3.9.5801.28093 Rel
800x Framework Version	3.9.5801.28093 Rel
7625 Framework Version	3.9.5801.28098 Rel
7625 Static Framework Version	3.9.5801.28092 Rel

7 New features and Fixes

7.1 ADV7625 Static OSD Framework

The new framework selection is available to create a static age 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

7.1.1 Benefit

- The framework make 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 Fixes and Improvements in ADV7625

7.2.1 OSDListbox: Issue total item size 150 and text size required more than 1 Tbox to render

Warning message is shown emulator when exceeding maximum Tbox Limit

7.2.2 OSDHistogram: Emulator struck at GDB window as segmentation fault when passing third invalid parameter to SetBinsvalue() in code window

Third argument is not a valid one. We should give the buffer value; the code is updated for giving warning message.

7.2.3 Emulator window gets flickered or some screen corruption appears for a second and recovers when changing resolution

Emulator display size is now updated before changing resolution content.

7.2.4 OSDLabel Component text are not clear when Tbox scaling is applied to max value and then size is reduced to small when resizing in canvas window

The Components are validated while resizing.

7.2.5 “Changes detected “warning message appears even when no changes were made, even a simple open-close in the project file

Checked whether the file is modified or not

7.2.6 Emulator window:-Label Text Location Y slightly moved down when scaling is enabled

The alignment is adjusted when scaling is enabled.

7.2.7 For scaling value 2, List box text/contents are visible outside of the component in canvas window

The List box Alignment is adjusted when scaling is enabled.

7.2.8 External Flash: Blimp "Programming data" not updated while loading flash.

The progress bar value is updated while flashing memory.

7.2.9 OSDImage: No difference is observed for the animation speed 10 and 15 in emulator window

Added different speed interval for values 10 and 15 in emulator window.

7.2.10 OSDListbox: Hidden Items Feature is not supported in 7625

Hidden Items is implemented in Blimp 3.9 Rel

7.2.11 Unicode settings: In custom range we need to add the "0x" for each value, can't able to enter the value "20" directly instead of have to enter "0x20"

Unicode settings feature for entering decimal values directly without "0x" in custom range.

7.2.12 OSDPage: Page size is not updated properly when using copy resolution

Since the page size is updated by corresponding resolution, the page size would not able to update by the user

7.2.13 OSDLabel set visible in animation Enabled changed event.

Animation Enable changed event is executed after page is shown

7.2.14 OSDLabel: spacing between the vertical text is larger in emulator when compared to canvas

The space between the vertical text is changed same as that of appearing in canvas window.

7.2.15 Code Window: Exception happened if we call show page API from load event

Warning message is shown as "Other page's object should not called when page loading"

7.2.16 OSDListbox: Item Index is wrongly updated while scrolling.

Hidden item's drawing function is updated

7.2.17 OSDListbox: Item text suspended while scrolling.

Hidden item's drawing function is updated

7.2.18 OSDLabel: readtextW is not working while using page manager

Another page object is properly configured as PageManager.Page1.OsdLabel1

7.2.19 OSDLabel horizontal scrolling get interrupt when osdListbox get vertical scroll

Horizontal scrolling and vertical scrolling can be processed parallel.

7.2.20 OSDListbox: Item texts are not visible while vertical scrolling.

Hidden item's drawing function is updated

7.2.21 OSDListbox: Item text are not visible properly in emulator window

Hidden item's drawing function is updated

7.2.22 OSD Label: Scrolling content affects the non-scrolling contents

The front and back scrolling handle are initialized as -1

7.2.23 Emulation slow down if we choose build settings as "Internal" in settings

Flash data is packed using BitConverter namespace instead of byte by byte appending

7.2.24 Language settings: Characters are corrupted in ADI DEMO while selecting the languages multiple times

Corrected the condition for allocation and deallocation, while changing multiple times

7.2.25 OSDLabel: The characters are moving right/left for a moment while scrolling enabled and Text Repeat on condition

The front and back character handle for scrolling are initialized as -1

7.2.26 OSDListbox: Highlighted event index values are updated wrongly .Please use the attached project

Highlighted event index value is passed to the event

7.2.27 OSDImage: Irrelevant message appeared in canvas window

Relevant warning message is shown when the image list is empty

7.2.28 Advanced Settings:Black fin flash memory programming: binary file name is wrong in data file path text area

File name "ddr2_dump_raw.bin" changed to "ddr2_dump.bin"

7.2.29 Hangup occurred when we large OSD binary(1 MB binary) is flashed

Increased the Heap memory size and assigned the multiglyphFont variable to 0.

7.2.30 Canvas window is small for few seconds while we reopen any project

Changed the size to default window size while reopening

7.2.31 "MINGW is not properly installed in C:\MinGW" message displayed while cancel the emulation

A condition has been checked while cancelling the emulation

7.2.32 OSDProgressBar current value get changed while changing the max value

Modified the current value while changing the Maximum value.

7.2.33 TboxImage: "Image size exceeds the maximum size" warning message appear while adding 50x50 image

The warning message is updated " Image which contains more than 32 unique colors" in next Blimp 3.9 SP1 release

7.2.34 OSDLabel is not visible in emulator window if we set the orientation as vertical

Corrected the handle allocation for multiglyphfont for vertical orientation.

7.2.35 Color value is not effect in emulator window for static OSD

Color value is extracted instead of color name

7.2.36 Exception happened if we try to copy the resolution in static OSD

Copy resolution is not supported in Blimp 3.9 Rel, user defined message is displayed. This feature is planned to support in next release Blimp 3.9 SP1

7.2.37 OSDLabel disappeared from canvas window when the vertical orientation is set

Corrected the alignment for Top Left, TopCenter and Top Right for Vertical orientation

7.3 Issue Fixes and Improvements in ADV800X:

7.3.1 Installation: Unable to compile and run emulator when MinGW is not installed properly, message should be clearer as to what the problem is.

User friendly message is displayed when MINGW is not properly installed

7.3.2 OsdProgressBar: Unhandled exception throws and Empty Image/Filled Image preview Changed to Red color crossbar

Return statement added when we set wrong border settings

7.3.3 Not able to Change location through mouse for all components whenever component visible property becomes false

Code modified user to allow change location of component when component visibility is false.

7.3.4 Unhandled exception error occurs when try to create project name as "" and then click create button

Exception handled by adding user friendly message for "Invalid project name"

7.3.5 ExternalOSD:"System Argument exception: Parameter is not valid "error appears when ExternalOSD Resolution is set 32769, 32769/ -32770,-32770 via Customize option

Invalid value for resolution. It should be in the limit - 0 to 4095. Error message added.

7.3.6 OSDSlider:A small Cut is displayed in the bar image right side

When slider has overlapping bar image regions with alpha < 16 caused this issue. To avoid overlapping first and last region size of bar image is changed.

7.3.7 OSDBox:Alpha difference mismatch in canvas and emulator window for OSDBOX

Color ARGB conversion added as like in emulator window

7.3.8 Caret image disappears when max and min value is set as int32

Blimp and requirement updated as Int16 for max, min and position value;

7.3.9 OSDImage: The scaled images are also added in image library.

Condition is added to exclude scaled images into image library

7.3.10 When creating the list with over 128 item, focus disappears when scrolling through the cursor from item130 to 120

Negative offset value caused this issue. Data type of OldFocusIndex variable changed to UINT8

7.3.11 OSDMultiColumnListbox: Slider doesn't move when we change the Multicolumnlistbox location

Added runtime location change

7.3.12 Page Image Animation effect: noise occurs before fly in effect in the emulator window

Hardware Emulator code issue is fixed

7.3.13 OSDMulticolumnListbox: When setting multicolumnlistbox as "false" in code window using "key code", single item text is visible in emulator window.

Child object visibility set is added

7.3.14 OSDImage: Initial frame image appears in output instead of Final frame sometimes while "onetime animation"

Error message added if beta animation speed is very low.

7.3.15 File Settings: In Blimp "Remote emulator" is in the view option, nothing happens when we selecting that option

Option removed from view menu

7.3.16 OSDTextbox:Units should be in Hertz and not in frames as currently implemented. Document needs to be updated when this is corrected also.

Textbox and IPTextbox animation speed unit changed to frames/second

7.3.17 Project Explorer: This (Resolution Size) property comes under the behavior instead of layout in blimp tool

Changed to Layout

7.3.18 Splash Page get deleted along with the folder.

User doesn't allow delete/move splash page folder

7.3.19 Splash Page: unhandled exception occur while adding folder in splash page

Null pointer exception is handled

7.3.20 Splash page is able to set as starting page and able to add two or more page by selecting Add items in project toolbar

Added condition to check whether it is splash page or not

7.3.21 OSDImage: Move up option in image settings is always highlighted

Tab index is modified

7.3.22 OSD Image: Two color depth options are added wrongly in Property Navigator

Visibility is changed

7.3.23 ExternalOSD: User cant able to change the External OSD Resolution

Static list cleared when project is loading

7.3.24 ExternalOSD: ZLayer property is not working in Code window for ExternalOSD component

Added "zLayer" in property transformer

7.3.25 OSDImage: Current frame, Initial frame and Final frame is not working in code window

Current frame, Initial frame and Final frame property names are added in Property transformer

7.3.26 OSDSlider: Position value not works if we write the values in load event

Update component API is called when component come to visible

7.3.27 OSDTextbox: Some noise occurs while changing the Alpha through Remotekey press

Added separate set alpha function in textbox.c other than object functions and checked if component has active animation

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 SP1

8.1.1 ADV800xframework:

- Label text scrolls slowly when change resolution to 1080p30
In hardware, when change the resolution from any other resolution to 1080p30, then Label text will scroll slowly, but after reset the hardware, the problem will be resolved
- Horizontal Scrolling: The scrolling duration will mismatch between two resolutions 1080p24 and 1080p60.

In hardware, press remote key and set scrolling speed as 100.

Calculate the scrolling duration for the 1080p24 and 1080p60 and there will be mismatch in the results.

- 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.

- OSDLabel : In scrolling speed effect ,there is no difference between 200 and 2000
Create a project withosdLabel component is added and set scrolling enabled as true, Scrolling speed as 200.Emulate and check the speed effect. Change the speed as 2000 check the speed effect and compare the results ,no differences observed.
- OsdSlider: Resume layout will not work properly in code window
Open a new project by addingOsdSlider and focus the component and write the code in remote key press event for “SuspendLayout” and “Resumelayout” for the Key code configurations. OsdSlider is not resumed. If we press anyother key code then only it updates to the current position.

8.1.2 ADV7625framework:

- Component size doesn't update properly while changing the resolutions.
Place any osdBox on canvas window in 480p.Now component size will be 304,182.Change the resolution from 480p to 720p. Now component size remains the same in property navigator. After clicking on canvas and select the component, then only component size will be updated in property navigator. The issue is fixed by the focus is changed to page while changing the resolution and is available in next release
- OSDBox get overlap with OSDProgressBar as individual boxes
If you open a new project withosdProgressbar and osdBox added, then Place the osdProgressbar at half of the osdBox and set the osdBoxzlayer as 1. After emulate it, OsdBox will get overlap with OSDProgressBar as individual boxes.This issue is resolved by changing the Progress bar priorityand overlapping. This issue fix will be available in next release.
- Page Visible Property does not work
Open a new project and add any component and set the page visible property as false. After emulate it, the component placed in the page will be visible in emulator window. The Page visible property is removed in Property navigator and this will be available in next release.
- Segmentation fault will occur when image visible property is set as false
Open a new project with OsdImage component with some images on it and set the animation as True and visible as false. After Emulate, the segmentation fault will occur.
- 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
- OsdListbox horizontal scrolling will not work.
OsdListbox horizontal scrolling will not work if we initiate the OsdListbox in load
- Image size exceeds warning message will appear even for the size as 30x30.
Create a project by droppingTbox image and load the image of size 30x30 and warning message “Image Size exceeds the maximum size” message will appear

- Progress bar border is separated from the component when we set border width as 255

Add progress bar to the canvas window and set the border width as 255 and emulate it. Now the border is displayed in some other place in the emulator screen. This issue fix will be available in next release.

- Sometimes Images will be cropped even we use the allowed ranges of size and color
Some icons are cropped even we use the allowed ranges of size and color for Images

8.1.3 ADV7625 static OSD framework:

- OsdImage and OsdTboxImage get junk in emulator if uncheck all the Unicode
Create a new project with ADV7625 static osd framework and add OsdLabel, OsdImage and OsdTboxImage component and add images for OsdImage and OsdTboxImage component. Then remove the check from Unicodesettings (0x0000 - 0x007F - Basic Latin) and emulate it. Here the OsdImage and OsdTboxImage will get junk. This issue will be resolved in next release by adding an Error message when no range is selected.

- Multiline is not working for emulator window

Create a new project by adding osdLabel with text as "osdLabel1\nAnalog". Set the Multiline property as True and Emulate it. There is no effect in emulator window. This Multiline feature will be added in next release

- osdLabel: Font size above 13pt text is not visible in emulator window

Open a new project with osdLabel with Font size set as 15pt. Add Unicode for the Text. Emulate it. The osdLabel is not visible in emulator window

- osdLabel: Vertical line spacing is increased in emulator window when compared to canvas window

Open a new project with osdLabel added and set the orientation as Vertical. Now emulate it.

Here the line spacing is increased in emulator window when compared to canvas window.

- TboxImage: 256x16 pixel Image is cropped as 16x16 pixel in emulator window

Create a project with Tbox Image with 256x16 pixel image and emulate it. Here 256x16 pixel image which is used in canvas window is cropped as 16x16 pixel in emulator window

8.2 Limitations:

8.2.1 ADV7625 framework:

- Unicode range must be able to accept only ASCII values, not just hex format.
Unicode range accepting hex format will be added in next release
- Z layer priority has some limitation for the combination of some 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.

- Tbox number of colors when using Tbox image and Label reported only in emulator. Reported in canvas directly will be added in next release

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
- Since static OSD framework is created and bulk SPI transfer is done master mode, emulator is not updated (engine_sim.cpp) at initial version. Emulator cannot emulate SPI read from flash but we used the same engine to emulate a page view. We could use the page up and down key to go from one page to another in first version.
- Tbox number of colors when using Tbox image and Label reported only in emulator. Reported in canvas directly will be added in next release
- Maximum number of glyph will be reported only in emulator, not reported in canvas. Reporting in Blimp will be added in next release.
- Message when building “Index was outside the bounds of the array” system generated message means nothing. Clear error message and location of error will be added in next release
- Static framework should only compile used characters in Tbox Glyph so there is no need of Unicode settings in master mode framework. This will be removed in next release
- 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