

Demo Application UI Guide (NxAVIn)

Version 0.7.0

Display Audio

Solution Team



Release information

The following changes have been made to this document.

Change History

Date	Change
15 Nov. 2018	Applying single application framework and Using configuration file for display for v0.7.0
04 Dec. 2017	First release for v0.6.0

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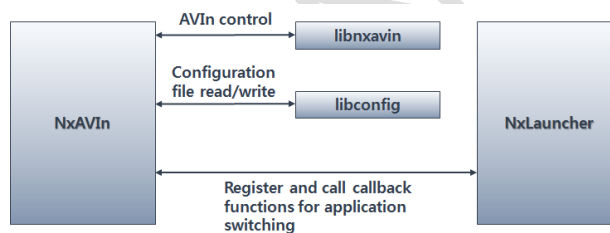
Chap 1. Overview

1.1 Overview

This document describes NxAVIn, that is demo application of Display Audio. The NxAVIn outputs CVBS using AVIn hardware(TW9900), and this application provide function to toggle status bar.

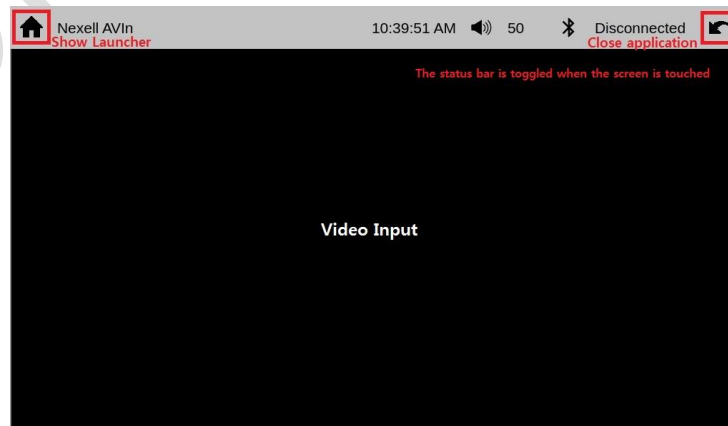
1.2 Block Diagram

The NxAVIn consists of libnxavin for controlling AVIn function, libconfig for reading/saving configuration file and parts registering and calling callback functions between the application and launcher for switching application.



1.3 Application UI

The application screen is as below. The Status Bar operation has itself policy to switch application. When screen is touched, the Status Bar is toggled in this application.



1.4 Configuration File

The configuration file (config.xml) includes configuration values for display. It is in the folder “/nexell/daudio/NxAVIn”. If the file does not exist, the application is run by default values and the configuration file is created with default values when the application is stopped. Configuration values are crtc index and layer index for display. If crtc index is “0” and layer index is “0”, video images are displayed at video layer of 1st crtc.

The format is as in the following.

[config.xml]

```
<?xml version="1.0" encoding="UTF-8"?>
<map>
  <string name="crtc_idx">0</string>
  <string name="layer_idx">0</string>
</map>
```

Chap 2. AVIn Library

2.1 Overview

The libnxavin provides to manage AVIn. This usage of library see as below.

2.2 APIs

2.2.1 NXDA_StartAVInService()

```
int32_t NXDA_StartAVInService(
    CAMERA_INFO *pCamInfo,
    DISPLAY_INFO *pDspInfo
);
```

Description

Start AVIn Service.

Parameter

-. pCamInfo : Camera Information
-. pDspInfo : Display Information

Return Value

Zero is successful. -1 is failed.

2.2.2 NXDA_StopAVInService()

```
void NXDA_StopAVInService(
    void
);
```

Description

Stop AVIn Service.

Parameter

None.

Return Value

None

2.2.3 NXDA_SetAVInVideoPosition()

```
int32_t NXDA_SetAVInVideoPosition(
    int32_t x,
```

<pre> int32_t y, int32_t width, int32_t height); </pre>
Description Set video position.
Parameter <pre> -. x : x position of video -. y : y position of video. -. width : width of video. -. height : height of video. </pre>
Return Value Zero is successful, -1 is failed.

2.2.4 NXDA_RegAVInRenderCallback()

<pre> void NXDA_RegAVInRenderCallback (void *pApp, int32_t (callback)(void *, int32_t, void *, int32_t)); </pre>
Description Register AVIn render callback.
Parameter <pre> -. pApp : private handle. -. callback : redering callback. int32_t callback(void* pApp, int32_t type, void* data, int32_t dataSize) -. pApp : private handle. -. type : callback function type. (CB_TYPE_BUFFER, CB_TYPE_HIDE, CB_TYPE_SHOW) -. data : send data for callback. -. dataSize : size of data </pre>
Return Value None

2.2.5 NXDA_RegAVInControlCallback()

<pre> void NXDA_RegAVInControlCallback(void *pApp, int32_t (callback)(void *, int32_t, void *, int32_t)); </pre>
Description Register AVIn Control callback.
Parameter <pre> -. pApp : private handle. </pre>

-.	callback	: rederring callback.
	int32_t callback(void* pApp, int32_t type, void* data, int32_t dataSize)	
-.	pApp	: private handle.
-.	type	: callback function type. (CB_TYPE_BUFFER, CB_TYPE_HIDE, CB_TYPE_SHOW)
-.	data	: send data for callback.
-.	dataSize	: size of data
Return Value		
	None	

Chap 3. **History**

3.1 Known Issue

-. Not yet.

3.2 To do list

-. Apply to change audio focus scenario.