ZEBRA

Release Notes

Scanner SDK for Linux v4.4

October 2019

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Overview

These release notes describe the Software Development Kit (SDK) for Linux, including its functionality, supported scanners and supported distributions.

Functionality,

1. CoreScanner core components and drivers (USB, Imaging).
2. JPOS driver.
3. Development libraries and header files for application developers.
4. Test and Sample utilities
    a. Standard I/O Console based sample application for CoreScanner (C++).
    b. GUI sample application for CoreScanner (C++).
    c. IBM JPOS sample application (Java).
    d. The install verifier app

CoreScanner Driver

1. Supported Com Interfaces.
    a. Com interfaces supported by CoreScanner (Data and management).
        i. USB SNAPI
        ii. USB IBM Handheld
        iii. USB IBM Tabletop
    b. Com interfaces supported by Linux OS native keyboard driver (No Zebra SDK involvement required).
        i. HID Keyboard
        ii. USB CDC (Virtual Com Port)
            1. Note - Host variant switching from CDC to management modes is supported. Note switching back (management to CDC com protocol switching) is not supported.
2. Programmatic API Capabilities
    a. Com protocol switching
    b. Get device topology
    c. Plug and Play (PnP) detection
3. Data Capabilities
    a. Bar code data support
    b. Scale data for MP products
    c. Image capture support including view finder
    d. Video capture support
    e. Intelligent Document Capture (IDC)
4. Sample Apps with Source Code
    a. C++ sample app – Graphical User Interface (GUI) based
    b. C++ console app – Command line control based
5. Firmware update
6. Debugging Tools
    a. Logging / monitoring support

JPOS Driver

1. XML configuration of scanner attributes.
2. Access to Zebra specific functionality through Direct I/O calls
3. Sample applications
    a. JPOS sample app
    b. Direct I/O sample app
4. Logging support
5. JPOS exceptions for failures (Troubleshooting)

JPOS Remote Management Solution

1. New tool to perform remote management activities via JPOS driver.
2. Command line tool and executed by a shell script
3. Logging support
4. Exceptions or error message will be printed to the console during the tool execution.

Install Verifier App

1. This standalone application allows a user to verifying the SDK and its drivers (CoreScanner and JPOS driver) installed properly and are functioning correctly
2. Application will output an event log as documentation and to assist with debugging issues
3. Installation Option: tarball

Host Device Details

See the "Installation Options (Supported Distributions)" table – shown below.

For the latest SDK updates, please visit Zebra Scanner SDK

For support, please visit http://www.zebra.com/support.

Device Compatibility

For the compatible devices list, please visit following page.

https://www.zebra.com/us/en/support-downloads/software/developer-tools/scanner-sdk-for-linux.html

Version History

Version 4.4.1-2 – 10/2019

1. Added "DotCode" and "GridMatrix" symbology support to JPOS and SDK Sample Applications. Note the Linux SDK already supported these symbologies.
2. Added Java 12 UI enhancements to JPOS Sample Application. Note no change required in the JPOS driver.

Version 4.4.0-18 – 08/2019

1. Added Scale Live Weight event support for Multi-Plane scanners.
2. Vendor specific capability, 'CapStatusUpdate' enabled in JPOS Scale driver.
3. Implemented 'StatusNotify' property in JPOS driver.

Version 4.4.0-15 – 06/2019

1. Added get next Attribute RSM command support in CoreScanner.

Version 4.4.0-14 – 06/2019

1. "EAN13 Supplementary of 5" symbology support added into JPOS Sample Application.

Version 4.4.0 – 03/2019

1. Added JPOS 1.14 standard compatibility for the JPOS driver.

2. Introduced a JPOS based asset query capability (model #, serial #, date of manufacture, firmware version).

Version 4.3.3 – 01/2019

1. Enhanced Linux log file format to mirror Zebra's Windows SDK logging format
2. Added ability to customize logging capabilities via the CoreScanner configuration file. Settings include
    a. Log file storage path
    b. Number of stored log file. For example, save the last 50 files.

Version 4.3.1 – 08/2018

1. Added support for JPOS Scale Asynchronized Read Weight -1 (forever) timeout support.
2. Added support for Intelligent Document Capture (IDC).
3. Added ability to specify an on board udev library using the CoreScanner's configuration file instead of the system default.

Version 4.2.4 – 04/2018

1. JPOS Scale Read Weight Asynchronized mode support.
2. JPOS Statistics reporting support for Scale.

Note C++ applications cannot be compiled with C++ 11 based compilers without setting _GLIBCXX_USE_CXX11_ABI macro to 0. Below definition will be used to set ABI to the old C++ version.

#define _GLIBCXX_USE_CXX11_ABI 0

Version 4.1.11 – 01/2018

1. Host variant switching from CDC to management modes.

Version 4.1.0 – 10/2017

1. Support for custom PIDs.

Version 4.0.0 – 05/2017

1. Source tarball.
2. Install Verifier application added.

Version 3.0.0 – 08/2016

1. IBM TT, IBM HID, SNAPI firmware download support.
2. SNAPI fast firmware downloads support.
3. SNAPI Imaging and Video capturing.
4. API events like PNP events.
5. Detecting HIDKB devices.

Version 2.0.0 – 02/2016

1. Existing drivers were rebranded from Motorola to Zebra.

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Version 1.3.0 – 08/2015

1. Supports for Ubuntu 14.04, Ubuntu 12.04, SLES 11, CentOS 6.3 distributions.
2. Concurrent application support for Scanner and Scale of MP6200 in JPOS.
3. Cascaded device support for MP6200, Presentation Cradle and Standard Cradle.

Components

Component or Module	File	Installation Path
CoreScanner libraries and symbolic links	libcs-iudev.so.4.4.0	/usr/lib/zebra-scanner/corescanner
	libcs-comm.so.4.4.0	
	libcs-common.so.4.4.0	
	libcscl-snapi.so.4.4.0	
	libcs-client.so.4.4.0	
	libcs-clientscanner.so.4.4.0	
	libcs-clientscale.so.4.4.0	
	libcscl-ibmtt.so.4.4.0	
	libcscl-ibmhh.so.4.4.0	
	libcscl-hidkb.so.4.4.0	
	libcs-client.so -> libcs-client.so.4.4.0	
	libcs-clientscale.so -> libcs-clientscale.so.4.4.0	
	libcs-clientscanner.so -> libcs-clientscanner.so.4.4.0	
	libcs-comm.so -> libcs-comm.so.4.4.0	
	libcs-common.so -> libcs-common.so.4.4.0	
	libcs-iudev.so -> libcs-iudev.so.4.4.0	
	libcscl-hidkb.so -> libcscl-hidkb.so.4.4.0	
	libcscl-snapi.so -> libcscl-snapi.so.4.4.0	

	libcscl-ibmtt.so -> libcscl-ibmtt.so.4.4.0	
	libcscl-ibmhh.so -> libcscl-ibmhh.so.4.4.0	
CoreScanner Daemon	Cscore	/usr/bin/
Init scripts for CoreScanner daemon for many distributions	cscored-ubuntu	/usr/share/zebra-scanner/sbin/
	cscored-suse	
	cscored.service	
	cscored.lsb	
JPOS driver and SDK libraries	xml-apis.jar	/usr/lib/zebra-scanner/javapos/jpos/
	xercesImpl.jar	
	JposServiceScanner.jar	
	JposServiceScale.jar	
	JposServiceOnScanner.jar	
	JposServiceOnScale.jar	
	JposServiceJniScanner.jar	
	JposServiceJniScale.jar	
	JposLogger.jar	
	javaPOS114.jar	
	JLogger.jar	
	logback-core-1.2.3.jar	
	logback-classic-1.2.3.jar	
	lsf4j-api-1.7.25.jar	
CoreScanner libraries for JPOS JNI	libcs-jniscanner.so.4.0.0	/usr/lib/zebra-scanner/javapos/jni/
	libcs-jniscale.so.4.0.0	
	libcs-jniscanner.so -> libcs-jniscanner.so.4.0.0	

	libcs-jniscale.so -> libcs-jniscale.so.4.0.0	
CoreScanner console sample application source codes and executable files	src/ConsoleSampleEventListener.cpp	/usr/share/zebra-scanner/samples/console-app/
	src/ConsoleMain.cpp	
	include/ConsoleSampleEventListener.h	
	include/ConsoleMain.h	
	bin/corescanner-console-app	
CoreScanner GUI sample application (Source code and executable files)	include/xml_formatter.h	/usr/share/zebra-scanner/samples/gui-app/
	include/util.h	
	include/scanner.h	
	include/debug.h	
	include/pugiconfig.hpp	
	include/pugixml.hpp	
	src/xml_formatter.cpp	
	src/util.cpp	
	src/pugixml.cpp	
	src/main.cpp	
	src/debug.cpp	
	gui.xml	
	Makefile	
	images/empty.png	
	bin/corescanner-gui-app	
JPOS sample application	JposTest.jar	/usr/share/zebra-scanner/samples/jpos-sample-app/
	jpos-sample-app.sh	
	build.xml	

JPOS direct I/O sample application	JposTestDio.jar	/usr/share/zebra-scanner/samples/jpos-directio-app/
	jpos-directio-app.sh	
JPOS based Remote Management Solution	jposRemoteManagement.jar	/usr/lib/zebra-scanner/javapos/jpos
	jposRemoteManagementTool.jar	/usr/share/zebra-scanner/remote-management
	remote-management.sh	
	jpos-remote-management.xml	/usr/share/zebra-scanner/javapos/xml/
JPOS configuration and property files	xml/jpos.xml	/usr/share/zebra-scanner/javapos/
	config/rsm-id.xml	
	config/rsm-id.dtd	
	config/msijpos.properties	
Source code for JPOS sample application	All .java files located inside the directory	/usr/share/zebra-scanner/samples/jpos-sample-app/src/com/jpos/POStest
Source code and resources for JPOS direct I/O sample	All .java files located inside the directory	/usr/share/zebra-scanner/samples/jpos-directio-app/src/com/jpos

Installation Options (Supported Distributions)

Supported distributions and their installation options.

Installation Options	Supported Distribution																	
	CentOS 7	CentOS 6.3	SLES 15	SLES 11 SP3	SLES 11 SP2	SLES 12	Open Suse 13.1	Red Hat 6.3	Red Hat 7.4	Ubuntu 19.04	Ubuntu 18.04	Ubuntu 16.04	Ubuntu 14.04	Ubuntu 12.04	Debian 8	Debian 7	Other *	
RPM_Package_x86_64bit	X	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	X86 Architecture
RPM_Package_x86_32bit	NA	X	NA	X	X	NA	NA	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	X86 Architecture
Debian_Package_x86_64bit	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	X	X	X	X	X	NA	X86 Architecture
Debian_Package_x86_32bit	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	X	X	X	X	X	NA	X86 Architecture
Debian	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ARM Architecture
Source_Tar_GZ_Package	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X86 Architecture

* Customer Testing Required

Dependencies and Package Installation

Boost and libusb libraries are dependent packages for CoreScanner and SDK for Linux. Distribution based versions are stated in below installation guides.

1. Package installation guide for Debian based systems (Ubuntu)
2. Package installation guide for RPM based distributions (SLES 11)