

ENTERPRISE BROWSER FOR ANDROID V1.8

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DESCRIPTION

Thank you for selecting Enterprise Browser as your mobility solution tool. User friendly mobile applications are key to leveraging the power, value and return on investment of mobile solutions and Enterprise Browser can significantly reduce the time and cost associated with mobile application development.

Enterprise Browser allows creation of flexible, OS-independent, hardware-agnostic applications that look, feel and act the same on every supported device and that can include a wide range of advanced data capture capabilities. Whether you want to streamline your warehouse, delivery or service operations or enable more robust asset tracking and visibility, Enterprise Browser will help you get your enterprise mobility solution up and running.

RELEASE NOTES

Version 1.8

- See also [Enterprise Browser 1.8 online documentation](#).
- **New Zebra Device Support**
 - [CC5000-10 Android Lollipop](#)
 - [MC33X Android Nougat](#)
 - [TC51 Android Nougat](#)
 - [TC51 Health Care Android Nougat](#)
 - [TC56 Android Nougat](#)
 - [TC70X Android Nougat](#)
 - [TC75X Android Nougat](#)
 - [VC80X Android Nougat](#)
- **Ultra-Rugged Scanner Support**
 - [DS3678](#) - *Now also supported on Android Nougat devices.*
- **Enhancement To Existing Custom On-screen Buttons/Keyboard Feature**
 - [Custom On-screen Buttons/Keyboard Usage Guide](#)
 - [ButtonBar XML Guide](#) - *New ButtonBar and Button-Specific parameters has been introduced.*
 - [ButtonBar Parameters](#)
 - [barTextColor](#)
 - [barTextStyle](#)
 - [barGapBtwnButtons](#)
 - [Button-Specific Parameters](#)

- [buttonSecondaryText](#)
 - [buttonActionClick](#)
 - [buttonActionLongClick](#)
 - [buttonActionDown](#)
 - [buttonActionUp](#)
 - [buttonClickable](#)
 - [buttonPreview](#)
 - [buttonHapticfeedback](#)
 - [buttonHapticfeedbackduration](#)
 - [delay](#)
 - [ButtonBar API](#) - 40 New ButtonBar APIs has been added.
- **New Configuration Parameters (in Config.xml)**
 - **User Experience Related Features**
 - **Disable Hardware Acceleration At Webview Level Inside Enterprise Browser Application**
- Note: By default, Hardware Acceleration will always be enabled within Enterprise Browser application at Application Level.
 - [<DisableHardwareAcceleration>](#)
 - **Disable All IMEs(Input Method Editors) Inside Enterprise Browser Application**
 - [<DisableAllIME>](#)
 - **Controls Hiding Of System Bar Inside Enterprise Browser Application**
 - [<HideSystemBar>](#)
 - **Web Related Features**
 - **Web Security**
 - [<ClientCertificate>](#) - Used for validating the Client Certificate silently.
 - **New Methods/Properties/Callback**
 - **System API**
 - Property - [deviceHostName](#)
 - **SignalIndicators API**
 - New Callback Parameter of [wlanStatus](#) Method - New parameters has been added to the existing callback of [wlanStatus](#) method.
 - Callback Parameter - [deviceHostName](#)
 - **Signal API**
 - New [signalEvent](#) Parameter - New parameters has been added to the existing [signalEvent](#).
 - Parameter - [deviceHostName](#)
 - **Barcode API** - Applicable on Android platform with EMDK version 6.6 and above.
 - **Multi-Barcode and UDI Support**
 - New Callback Parameter of [enable](#) Method - New parameters has been added to the existing callback of [enable](#) method for supporting Multi-Barcode and UDI.
 - Callback Parameter - [isUDIData](#)
 - Callback Parameter - [label](#)
 - Callback Parameter - [UDITokenizedData](#)
 - Property - [scanMode](#)
 - Property - [enableGS1](#)
 - Property - [enableHIBCC](#)
 - Property - [enableICCBBA](#)
 - Property - [adaptiveScanning](#)
 - Property - [aimingPattern](#)
 - Property - [connectionIdleTime](#)
 - Property - [codeldType](#)

- Property - [disconnectOnExit](#)
 - Property - [gs1LimitedSecurityLevel](#)
 - Property - [hanXin](#)
 - Property - [hanXinInverse](#)
 - Property - [mailMark](#)
 - Property - [pairAfterScannerReboot](#)
 - Property - [upcEanCouponReport](#)
- **EzNFC API**
 - New Callback Parameter of [enableRead](#) Method - *New parameters has been added to the existing callback of [enableRead](#) method.*
 - Callback Parameter - [TagManufacturerName](#)
 - Callback Parameter - [TagTechnologies](#)
 - Callback Parameter - [ATQA](#)
 - Callback Parameter - [SAK](#)
 - Callback Parameter - [ATS](#)
- **Existing [proximitySensorType](#) Property** - *The default value of [proximitySensorType](#) has been changed from 22 to 65538 for Android Lollipop & above.*
 - **Existing [<DomStorageEnabled>](#) Configuration Tag** - *DOM Storage will always be enabled by default within Enterprise Browser Application.*
 - **Enterprise Browser Application And Configuration Version Comparison** - *From Enterprise Browser 1.8 and above, Enterprise Browser Application and Configuration version comparison is now gets captured at Enterprise Browser log file.*

[\[Show Enterprise Browser 1.7 Release Information\]](#)

[\[Show Enterprise Browser 1.6 Release Information\]](#)

[\[Show Enterprise Browser 1.5 Release Information\]](#)

[\[Show Enterprise Browser 1.4 Release Information\]](#)

[\[Show Enterprise Browser 1.3 Release Information\]](#)

[\[Show Enterprise Browser 1.2 Release Information\]](#)

[\[Show Enterprise Browser 1.1 Release Information\]](#)

[\[Show Enterprise Browser 1.0 Release Information\]](#)

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DEVICE COMPATIBILITY

Zebra Devices

This software release has been approved for use with the following Enterprise Mobility devices.



Note:

- Enterprise Browser 1.6 and higher versions do not support devices running Android Jelly Bean. For Android Jelly Bean support, please use [Enterprise Browser 1.5](#) or lower versions.


Mobile Computers

	DEVICE FAMILY	DEVICE	OPERATING SYSTEM(S)	SUPPORTED WEB VIEWS
	MC18	MC18	Android 4.4	Chromium



			(KitKat) Android 5.0 (Lollipop)	Webview
	MC32N0	MC32N0	Android 4.1 (JellyBean)* Android 5.0 (Lollipop)	Chromium Webview
	MC33X	MC33X	Android 7.0 (Nougat)	Chromium Webview
	MC40	MC40	Android 4.1 (JellyBean)* Android 4.4 (KitKat) Android 5.0 (Lollipop)	Chromium Webview
	MC67	MC67	Android 4.1 (JellyBean)* Android 4.4 (KitKat)	Chromium Webview
	MC9200	MC9200	Android 4.4 (KitKat)	Chromium Webview
	TC55	TC55	Android 4.1 (JellyBean)* Android 4.4 (KitKat)	Chromium Webview
	TC51	TC51, TC51 Health Care	Android 6.0 (Marshmallow) Android 7.0 (Nougat)	Chromium Webview
	TC56	TC56	Android 6.0 (Marshmallow) Android 7.0 (Nougat)	Chromium Webview
	TC70	TC70 GA1, TC70 GA2	Android 4.4 (KitKat) Android 5.0 (Lollipop)	Chromium Webview
	TC70X	TC70X	Android 6.0 (Marshmallow) Android 7.0 (Nougat)	Chromium Webview
	TC75	TC75	Android 4.4 (KitKat) Android 5.0 (Lollipop)	Chromium Webview

	TC75X	TC75X	Android 6.0 (Marshmallow) Android 7.0 (Nougat)	Chromium Webview
	TC8000	TC8000	Android 4.4 (KitKat) Android 5.0 (Lollipop)	Chromium Webview


Vehicle Computers

	DEVICE FAMILY	DEVICE	OPERATING SYSTEM(S)	SUPPORTED WEB VIEWS
	VC80X	VC80X	Android 7.0 (Nougat)	Chromium Webview


Tablets

	DEVICE FAMILY	DEVICE	OPERATING SYSTEM(S)	SUPPORTED WEB VIEWS
	ET1	ET1 (Enterprise Tablet), ET1 WAN	Android 4.1 (JellyBean)*	Chromium Webview
	ET5X	ET50, ET55	Android 5.0 (Lollipop) Android 6.0 (Marshmallow)	Chromium Webview

Kiosks

	DEVICE FAMILY	DEVICE	OPERATING SYSTEM(S)	SUPPORTED WEB VIEWS
	CC5000-10	CC5000-10	Android 5.0 (Lollipop)	Chromium Webview

Wearable Computers


	DEVICE FAMILY	DEVICE	OPERATING SYSTEM(S)	SUPPORTED WEB VIEWS
	WT6000	WT6000	Android 5.0 (Lollipop)	Chromium Webview

Scanners

	SCANNER TYPE	MODEL	DEVICE
	Ultra-Rugged Scanner	DS3678	TC51, TC51-HC, TC56, TC70X - <i>Android 6.0 (Marshmallow)</i> MC33X, TC51, TC51-HC, TC56,

			TC70X, TC75X, VC80X - <i>Android 7.0 (Nougat)</i>
	Corded Ring Scanner	RS4000	WT6000 - <i>Android 5.0 (Lollipop)</i>
	Cordless Ring Scanner	RS507	TC70 - <i>Android 4.4 (KitKat)</i> TC75, TC8000 - <i>Android 5.0 (Lollipop)</i> TC51, TC51-HC, TC56, TC70X - <i>Android 6.0 (Marshmallow)</i> MC33X, TC51, TC51-HC, TC56, TC70X, TC75X, VC80X - <i>Android 7.0 (Nougat)</i>
	Corded Ring Scanner	RS5000	WT6000 - <i>Android 5.0 (Lollipop)</i>
	Bluetooth Ring Scanner	RS6000	TC75, TC8000 - <i>Android 5.0 (Lollipop)</i> TC51, TC56, TC70X - <i>Android 6.0 (Marshmallow)</i> MC33X, TC51, TC51-HC, TC56, TC70X, TC75X, VC80X - <i>Android 7.0 (Nougat)</i>

Vibrators

	VIBRATOR TYPE	MODEL	DEVICE
	External Vibrator Cable	CBL-NGWT-HDVBAP-01	WT6000 - <i>Android 5.0 (Lollipop)</i>

Memory Considerations

Supported devices span a range of performance capabilities; therefore care should be taken when developing applications. The following points might help with this:-

- JavaScript libraries such as Sencha touch or JQuery Mobile can use a significant amount of memory at runtime. The more JavaScript libraries loaded into the DOM the greater the RAM footprint of the web page will be.
- Resources are available from the [Developer Community](#) to help create great looking, streamlined apps.
- Online performance tests for JavaScript and CSS, particularly those involving DOM manipulation will often be written to target desktop computers and may not run on all supported devices.

COMPONENTS OF ENTERPRISE BROWSER

Windows Desktop PC Components

Enterprise Browser components are installed in the following folders on the Windows Desktop machine:

COMPONENT	LOCATION
Runtimes	C:\EnterpriseBrowserForAndroid\Runtimes\EnterpriseBrowser_signed_v[version#].apk

JavaScript Files (New EnterpriseBrowser API)	C:\EnterpriseBrowserForAndroid\JavaScriptFiles\EnterpriseBrowser*.js
JavaScript Files (Backwards Compatibility)	C:\EnterpriseBrowserForAndroid\JavaScriptFiles\BackwardCompatibility*.js
Installer	C:\EnterpriseBrowserForAndroid\Installer\EnterpriseBrowserForAndroid.exe
Feature Demo	C:\EnterpriseBrowserForAndroid\Feature-Demo\
Configuration Editor	C:\EnterpriseBrowserForAndroid\Configuration Editor\
Shortcuts Utility	C:\EnterpriseBrowserForAndroid\Shortcut Utility\

Mac OS X PC Components

Enterprise Browser components are extracted to the application folder on the host Mac OS X machine:

COMPONENT
Runtimes
JavaScript Files (New EnterpriseBrowser API)
JavaScript Files (Backwards Compatibility)
Feature Demo
Printing CAB file
EB Online Help.webloc
Feature Demo ReadMe.webloc

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INSTALLATION

Windows Desktop

Enterprise Browser is installed by running the MSI project available from [Support Central](#). The MSI project can be used to deploy variants of the Enterprise Browser executable to the target device.

Mac OS X

The Enterprise Browser is installed by running the DMG project available from [Support Central](#). The DMG provides access to the Enterprise Browser device executables along with other resources.

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USAGE NOTES

Module-specific notes

- It is not recommended to use alert boxes to display scanned information or notify of gesture recognition or similar kind of stuff (example: under any callback) in a production environment.
- The ScannerType property of the Barcode API should not be relied upon to accurately report the type of Scanner in use.
- Enterprise Browser applications using the Audio capture APIs should specify a name prior to capturing rather than relying on the default name. The application also should be designed to take account of the time taken for the hardware to initialize.
- Only one alert should be shown at any given time on WM/CE devices.
- Printing Issues:
 - Printer discovery is unreliable running on Enterprise Browser supported devices. The most reliable way to connect to a printer is by calling 'searchPrinters' and providing the Bluetooth or IP address of the desired printer.
 - Attempting to connect to a printer after disconnecting will return an error.
 - The retrieveFileNames and retrieveFileNamesWithExtensions methods require passing an anonymous callback function. Named callback functions will not work.
 - Printing on devices loaded with the Stonestreet stack are not supported by Printer APIs. Please use Legacy APD APIs to print with the Stonestreet Stack.
- Debug buttons are not designed to be used in production code and may cause undesirable side effects.
- Capturing a signature in full screen mode is not compatible with the device auto rotation function.

Usage notes for Android

- Upgrade 'EMDK For Android' version to 6.0 or else slight delay will occur on every enable if the custom decode sound is set either via config tag <ScanDecodeWav> or via 'decodeSound' property of Barcode API.
- WriteConfigSetting and ReadConfigSetting of Generic module is not supported on Android.
- The Home Key cannot be intercepted or blocked on Android; please refer to the device documentation for details of how to enable OS lockout.
- UsPlanetReportCheckDigit and UsPostNetReportCheckDigit have no effect on Android.
- Once disabled, EAN13 barcodes should not be scanned with Android.
- The Bluetooth radio does not turn off when BluetoothManager.off_bluetooth is called and will not turn on automatically on Android when Bluetooth APIs are exercised.
- The Code128IsBtTable Barcode symbology is not supported on Android.
- When using the Native TabBar on Android, ensure the enablePageLoadingIndication property is set to 'true' to avoid potential issues on load.
- The device volume buttons will become non-functional in all Android devices unless you specify <EnableFunctionKey_F1/> and <EnableFunctionKey_F2/> in your config.xml file.
- The rhoconfig parameter 'local_server_port' is not supported.
- All RhoElements 1-2.2 APIs that use files treat the /mnt/sdcard/ directory as root. Therefore, an SD card must be present.
- In MC18 KitKat device, AudioCapture, Imager and KeyCapture API are not supported because of device limitations.
- In TC70 KitKat device, APD Printing requires ProgressBar to be enabled.
- All APIs related to RSM are not supported on Android.
- All APIs related to KeyLight module are not supported on Android.
- To turn off the beeper notification when using 2.2 Notification API on Android, set the 'setBeeperDuration' parameter before calling the 'stateOff' parameter.
- Within Enterprise Browser, key pressing will work properly if and only if the keycode mapping file is not empty and the content is properly written/captured as per the keycode mapping guidelines.
- The callback parameter 'TagIDHexa' of enableRead method of EzNFC API will now return the hexacode of NFC Tag ID in left to right order.
- Enterprise Browser CardReader API is not available on MC32 Android, MC33X Android Nougat, TC70X Android Nougat and TC75X Android Nougat devices.
- Enterprise Browser [Scanner API](#) is not available on CC5000-10 Android Lollipop device.
- Config tags such as <DecodeVolume>, <DecodeFrequency> and <DecodeDuration> are not supported on CC5000-10 Android Lollipop device.
- Barcode properties like 'decodeVolume', 'decodeFrequency' and 'decodeDuration' which is being accessed through EB namespace are not supported on CC5000-10 Android Lollipop device.

- Configuration tag <ScanDecodeWav> and Barcode property 'decodeSound' which is being accessed through EB namespace are not supported when wav sound format is used on CC5000-10 Android Lollipop device.
- Turn off device level rotation to avoid unexpected behavior on CC5000-10 Android Lollipop device.
- Multiple items cannot be selected simultaneously from a combo box on Android devices.

Configuration Options

- On reinstalling Enterprise Browser on Android, the previous config.xml file will not be overwritten.
- The <LogUser /> log severity has no effect if <LogInfo /> is disabled, disabling <LogInfo /> will have no effect on info logs.
- To navigate to secure web pages, it is necessary to specify both the HTTP and HTTPS proxies.

Upgrading Enterprise Browser

Settings are not preserved automatically when updating Enterprise Browser. To preserve previous settings, please perform the following steps:

- Save a copy of the Enterprise Browser Config.xml file(s) with existing settings from "*/<mass storage location>/Android/data/com.symbol.enterprisebrowser/Config.xml*" location to the below locations:
 - */<mass storage location>/EnterpriseBrowser/Config.xml* or */<internal_mem_root_dir>/EnterpriseBrowser/*
- Uninstall Enterprise Browser from the device.
- Install the new version of Enterprise Browser.

Data Persistence

Users have a number of options when choosing to persist their data locally including Web Storage and Web SQL databases.

- On Android, Enterprise Browser depends on the OS implementation of the storage solution and will persist across a re-install of Enterprise Browser. More detail on storage solutions can be found here: <http://www.html5rocks.com/en/features/storage>

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ISSUES FIXED IN THIS RELEASE

- [SPR-32893] Config Editor Tool now supports ADB version v1.0.36.
- [SPR-33133] Within Enterprise Browser, key pressing will work properly even if the keycode mapping xml file is empty.
- [SPR-33137] Added backward compatibility support for Android webview.
- [SPR-33345] Camera sharpness now gets retained even if power button is pressed.

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KNOWN ISSUES

Known Issues

- Calling getProperty with 'hasCalendar' always returns FALSE on the MC32N0 Android.
- Displaying notification messages of type dialog, notification etc are not taking effect on the MC32N0 Android.
- The default duration will not apply to the TC70 when calling 'videoCapture.start()'. To avoid this issue please set the videoCapture.duration.
- After installation of Enterprise Browser and subsequently adding an SD card, the original configuration will be ignored and a new default config.xml will be generated and applied from the SD card.

- If the user taps the screen outside of the authentication box, it will cancel the login page and display a server page error. This has been observed on MC40 and ET1 devices.
- If the user enters the incorrect credentials, the application will clear the fields rather than navigate to the "login failed" page. This is known to affect the ET1 and the MC40 devices.
- Streaming audio or video files via https will not function when using MediaPlayer on the MC18 KK device.
- Rendering behavior differs based on the default browser engine available in the device.
- Volume UP, Volume Down and Hardware Keys will not work when FunctionKeysCapturable tag is set to "0" in Config.xml on an Android device. To make keys functional, set this tag to "1" in Config.xml.
- Enterprise Browser Barcode properties must be set either before or along with the enable method on CC5000-10 Android Lollipop device.

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PART NUMBERS

The following table lists the part numbers for Enterprise Browser

PART NUMBER	DESCRIPTION	FIRST RELEASE DATE	COMMENTS
SW-ENTBR-AND	Enterprise Browser for Android operating systems	28 th May 2018	Version 1.8.0.0

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Last revised: 28th May 2018

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