

BlackBerry Java Application

Version: 5.0 Beta

Release Notes

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Product information

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The BlackBerry® Java® Development Environment is a fully integrated development environment and simulation tool for building a BlackBerry Java Application for a BlackBerry device.

The BlackBerry JDE is a Mobile Information Device Profile (MIDP) compliant with Java® ME environment for developers.

Use the BlackBerry JDE to build applications that take advantage of the unique features of the BlackBerry device, such as desktop synchronization applications, GPS applications, and applications that push content proactively to BlackBerry devices in environments that use the BlackBerry® Enterprise Server. The BlackBerry JDE provides ways for BlackBerry device applications to establish network connections to servers on the Internet or the corporate intranet.

Each version of the BlackBerry JDE comes with the BlackBerrySmartphone Simulators that were available when that version of the BlackBerry JDE was made public. To download additional BlackBerry Smartphone Simulators, visit www.blackberry.com/developers/.

Internationalization

The BlackBerry JDE contains tools that assist with internationalization (i18n) efforts. It is important to follow naming conventions. The Localization Demo sample application can be reviewed for more information because it makes use of i18n.

Note: The .rrc and .rrh files must exist in the same directory for successful compilation and you should define resource keys in uppercase letters only.

For more information about localization, see the *BlackBerry Java Application Development Guide* or the *BlackBerry Integrated Development Environment Online Help*.

Code samples

A sample BlackBerry JDE workspace exists in the samples subdirectory of the BlackBerry JDE installation directory. It contains sample programs that demonstrate how to design and build Java applications for BlackBerry devices.

Code samples with server components

The following sample applications include server components. Invoke the `run.bat` script in the specified folder to start the server component:

- The Bluetooth® Serial Port Demo sample includes a server component at: `samples/com/rim/samples/server/bluetoothserialportdemo`
- The Browser Multipart Push Demo sample includes a server component at: `samples/com/rim/samples/server/browsermultipartpushdemo`
- The Browser Push Demo sample includes a server component at: `samples/com/rim/samples/server/browserpushdemo`
- The GPS Demo sample includes a server component at: `samples/com/rim/samples/server/gpsdemo`
- The HTTP Push Demo sample includes a server component at: `samples/com/rim/samples/server/httppushdemo`
- The SMS Demo sample includes a server component at: `samples/com/rim/samples/server/smsdemo`
- The Socket Demo sample includes a server component at: `samples/com/rim/samples/server/socketdemo`

System requirements

Item	Requirement
computer	<ul style="list-style-type: none">• Intel® Pentium® processor or compatible (2 GHz minimum)• minimum 1 GB of RAM or more available• minimum 500 MB of disk space available
operating system	Any of the following operating systems: <ul style="list-style-type: none">• Windows Vista™ (32-bit)• Windows® XP Professional (32-bit)
Java® SE Development Kit	Java SE Development Kit version 1.6 or later (32-bit)
Microsoft® DirectX®	Microsoft DirectX version 8.0 or later

New in this release

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This section lists functional changes for the BlackBerry® Java® Development Environment version 5.0.0.

Application integration

Item	Description
Enhanced BrowserField	<p>You can embed web content within a BlackBerry device application using the <code>net.rim.device.api.browser.field2.BrowserField</code> class. This field takes up the dimensions of web content rendered within it.</p> <p>Several methods are provided to register listeners, request, execute, scale, display, debug and navigate content, retrieve content information, and handle errors.</p>
Widgets API	<p>You can now register third-party JavaScript® extensions with a widget using the <code>net.rim.device.api.web.WidgetExtension</code> interface that is implemented by the <code>net.rim.device.api.web.jsse.BlackBerryWidgetToolkit</code> class. This is used by the Web Component Pack to add extensions to the Script Engine.</p>
Widget Extension API's	<p>You can now use the <code>net.rim.device.api.script</code> package to develop custom BlackBerryWidget extensions. You can build a library using the following interfaces and classes to extend scripting capabilities:</p> <ul style="list-style-type: none"> • <code>Scriptable</code> • <code>ScriptableFunction</code> • <code>ScriptableImpl</code> • <code>ScriptExtension</code>
MEID Retrieve API	<p>You can now retrieve the MEID from a BlackBerry device that operates on a CDMA network. You can retrieve a string representing the decimal or hex MEID using methods available from the <code>net.rim.device.api.system.CDMAInfo</code> class.</p>
Multi-line API	<p>You can now access various information about the multiple lines (for example, a cellular line and work line) available on BlackBerry devices. You can retrieve the phone numbers of the available lines, determine which line to use, and initiate outgoing calls with selected phone numbers using new methods available from the <code>net.rim.blackberry.api.phone</code> package.</p> <p>The new Multi-line API provides the following features:</p> <ul style="list-style-type: none"> • retrieve the phone numbers and labels, IDs, and WAFs of available lines

Item	Description
	<ul style="list-style-type: none"> determine whether a phone line is a cellular line or a work line invoke the BlackBerry phone application using a source line and destination number <p>The <code>MultiLineListener</code> abstract class includes all callbacks from the <code>PhoneListener</code> interface.</p>
PhoneScreenField replacement	<p>You can use the new <code>net.rim.blackberry.api.phone.phonegui.PhoneScreen()</code> method to perform actions such as add, delete, replace field, etc. The <code>PhoneScreenField()</code> has been removed.</p> <p><code>PhoneScreenVerticalManager()</code> organizes field objects to be displayed vertically and <code>PhoneScreenHorizontalManager</code> organizes field objects to be displayed horizontally.</p> <p>Further enhancements have been made to the <code>net.rim.blackberry.api.phone.Phone</code> and <code>net.rim.blackberry.api.phone.MultiLineListener</code> classes.</p> <p>For more information on updating the phone screen, see the <i>BlackBerry Java Application Integration Development Guide</i>.</p>
MIDP 2.1 support	MIDP 2.1 is supported in this release.
Content-Folder support	<p>You can specify the folder on the BlackBerry device where you want to place your BlackBerry device application by adding a <code>Content-Folder</code> attribute to your application's .jad file. For example, to place your application in the Games folder, add <code>Content-Folder: Games</code> to the .jad file.</p>
Improvements to WBXMLWriter and WBXMLParser	<p><code>net.rim.device.api.xml.jaxp.WBXMLWriter</code> and <code>WBXMLParser</code> include new methods to ease the provisioning of three tables, and allow for support of multiple codepages.</p> <p>The following methods have been added to the <code>WBXMLWriter</code> class:</p> <ul style="list-style-type: none"> <code>void setAttrStartTable(String[] attrStartTable)</code> <code>void setAttrValueTable(String[] attrValueTable)</code> <code>void setTagTable(String[] tagTable)</code> <p>The following methods have been added to the <code>WBXMLParser</code> class:</p> <ul style="list-style-type: none"> <code>Vector getNameSpaceMap()</code> <code>void setAttributePageFollowTag(boolean follow)</code> <code>void setAttrStartTable(String[] attrStartTable)</code>

Item	Description
	<ul style="list-style-type: none"> • <code>voidsetAttrValueTable(String[] attrValueTable)</code> • <code>voidsetTagTable(String[] tagTable)</code>

Core I/O connection framework

Item	Description
Biometric API	<p>You can use the Biometric API to extract fingerprint information from a smart card to match against a scanned fingerprint. Extensions have been made to the Smart Card API to allow other smart card manufacturers to return fingerprint information.</p> <p>You can store, manage, and retrieve fingerprint data using functionality available from the <code>net.rim.device.api.biometrics</code> package. You can determine if fingerprint authentication is supported and retrieve the fingerprint information using new methods available from the <code>net.rim.device.api.smartcard.SmartCard</code> and <code>net.rim.device.api.smartcard.SmartCardSession</code> classes.</p>
Network API	<p>The Network API attempts to simplify the establishment of connections over the different transports available on the BlackBerry device. The <code>net.rim.device.api.io.transport</code> and <code>net.rim.device.api.io.transport.options</code> packages contain the implementation of the Network API. It provides the means for querying the availability of transports and for selecting the most appropriate one to establish a connection. It abstracts the details of parsing <code>ServiceRecords</code> and constructing proper URLs for <code>Connector.open()</code>. The Network API is intended for use with <code>http://</code>, <code>https://</code>, <code>socket://</code>, <code>tls://</code>, and <code>ssl://</code> connections.</p>
User Authentication API	<p>You can employ a separate token (such as a smart card or a proximity token) for user authentication on a BlackBerry device using the User Authentication API available from the <code>net.rim.device.api.userauthenticator</code> package.</p> <ul style="list-style-type: none"> • The <code>PasswordFrameworkProvider()</code> interface allows for the implementation of user authenticator to provide the required information to participate in the password-unlock process. • The <code>SecurityUIManager</code> class provides simple user-interface services to user authenticators. • The <code>UserAuthenticator</code> class provides the primary means of interaction with a user authentication token.

Item	Description
	<ul style="list-style-type: none"> The <code>UserAuthenticatorContextObject</code> class is used to create context objects that are employed to pass generic data between a user authenticator and the security framework. The <code>UserAuthenticatorManager</code> class is a system-wide singleton manager that is used to handle user authenticators loaded on the BlackBerry device.
Hotspot API	You can access Wi-Fi® hotspots using the functionality available from the <code>net.rim.device.api.wlan.hotspot</code> package.
Push API	<p>You can now use a new Push API in the <code>net.rim.blackberry.api.push</code> package to access the following functionality:</p> <ul style="list-style-type: none"> develop scalable push applications store registration information of subscriptions to push services automatically start a push application when a push message arrives and optionally bring the application to the foreground register with a BlackBerry Push API server detect SIM card swaps and automatically unregister SIM cards automatically unregister from a BlackBerry Push API server when an application is removed from the BlackBerry device

Data storage

Item	Description
Random File Access API	You can read data from and write data to a file at any location within the file using the Random File Access API. A new <code>net.rim.device.api.io.Seekable</code> interface is provided in the <code>net.rim.device.api.io</code> package. Two new methods introduced in this interface enable you to get and set the current position within a stream.
SQLite® Support	<p>You can now develop applications that use the integrated SQLite database using the SQLite API. You can use the following classes in the <code>net.rim.device.api.database</code> to work with a SQLite database:</p> <ul style="list-style-type: none"> <code>DatabaseFactory</code> is a factory class you can use to get database access by opening an existing database or creating a new one. <code>Database</code> provides a means to create statements.

Item	Description
	<ul style="list-style-type: none"> • <code>Statement</code> features values binding after it has been prepared. You can use the <code>execute()</code> method for statements such as <code>INSERT</code>, <code>DELETE</code>, <code>UPDATE</code>. You can use the <code>getCursor()</code> method for query statement such as <code>SELECT</code>. • <code>Cursor</code> provides iterative operations on the row set. • <code>Row</code> provides data retrieval operations. • <code>BufferedCursor</code> provides a means to cache data and access rows in random or bidirectional manners. • <code>CursorEnumeration</code> provides a simplified method of cursor navigation. <p>For more information on the SQLite API, see the <i>BlackBerry Java Application SQLite Development Guide</i>.</p>

Multimedia

Item	Description
Bitmap Scale and Compare API	<p>You can scale and compare bitmaps using the Bitmap Scale and Compare API. Methods in the <code>net.rim.device.api.system.Bitmap</code> class were updated and new APIs were added. The updated methods provide functionality that include scaling of bitmaps, getting scaled bitmap information, setting available filter types, and comparing bitmaps.</p>
Enhanced Media Key Events	<p>BlackBerry device applications can now respond to key presses of media keys even when the BlackBerry device application is in the background. This allows a BlackBerry device user to control media playback using certain keys even while another BlackBerry device application is in the foreground. This is done by implementing the new interface, <code>net.rim.device.api.media.MediaActionHandler</code>, which defines a single method <code>boolean mediaAction(int action, int source, Object context)</code>. The implementation is registered with the new method, <code>Application.addMediaActionHandler(MediaActionHandler handler)</code>.</p> <p>After registration, the <code>MediaActionHandler</code>'s method will be notified when certain keys are pressed that correspond to media "actions", such as "volume up", "volume down", "next track", "previous track", and "play/pause toggle". These notifications continue even when the BlackBerry device application is in the background. For handling media key presses while the BlackBerry device application is in the foreground, the new abstract class <code>net.rim.device.api.media.MediaKeyListener</code> can be used.</p>

Item	Description
	<p>All registered <code>MediaActionHandler</code> instances are notified of media key presses on connected wired headsets and paired Bluetooth® headsets. When media actions come from these sources the value of the <code>source</code> parameter specified to <code>mediaAction()</code> is <code>SOURCE_WIRED_HEADSET</code> or <code>SOURCE_BLUETOOTH_HEADSET</code>, respectively. Also, a non-null value will be specified for <code>context</code> when actions come from these headset sources.</p> <p>This feature is not available in BlackBerry JDE version 5.0.0 build 20.</p>
Video capture	<p>You can now embed a viewfinder, record video clips, and play captured video using the functionality specified in JSR 135. When your BlackBerry device application records to a file, the <code>Player</code> records in 3GP format. When your application records to an <code>OutputStream</code>, the <code>Player</code> records in a proprietary streaming video format.</p> <p>You can retrieve and control a video viewfinder, and record the video shown in the viewfinder using the <code>VideoControl</code> and <code>RecordControl</code> controls. The <code>Player</code> records to a file specified by a file locator or to an <code>OutputStream</code>. A new <code>Player</code> must be created to display the recorded video.</p> <p>Controls used to get the viewfinder and record video can be retrieved from a <code>Player</code> created by <code>Manager.createPlayer("capture://video?encoding=video/3gpp");</code>.</p>
Advanced Multimedia Supplements	<p>The Advanced Multimedia Supplements of JSR 234 are now supported and accessed through <code>javax.microedition.amms</code>. The Advanced Multimedia Supplements add many new controls for advanced camera and video features.</p>
Image API	<p>The <code>net.rim.device.api.ui.image.Image</code> class represents an image of agnostic type that can be painted into a graphics context. This is recommended for containers or components that support and display different types of images such as <code>Bitmap</code>, <code>BMPEncodedImage</code>, <code>PNGEncodedImage</code>, etc. An image cannot be instantiated directly. Different types of images can be created by calling methods in the <code>net.rim.device.api.ui.image.ImageFactory</code> class.</p>

PIM (Contacts, Calendar, Tasks, MemoPad)

Item	Description
Multiple ContactList support	<p>Multiple <code>ContactList</code> support provides individual access to each <code>ContactList</code>. The following methods in <code>javax.microedition.pim.PIM</code> have been modified to query and open PIM lists:</p>

Item	Description
	<ul style="list-style-type: none"> • <code>public String[] listPIMLists(int pimListType)</code> • <code>public PIMList openPIMList(int pimListType, int mode)</code> • <code>public PIMList openPIMList(int pimListType, int mode, String name)</code>
Name reading support in contacts	<p>You can now access the Japanese reading of the <code>NAME_GIVEN</code> and <code>NAME_FAMILY</code> elements of the <code>NAME</code> and <code>ORG</code> fields using the <code>net.rim.blackberry.api.pdap.BlackBerryContact</code> interface. You can access this information using the <code>NAME_GIVEN_YOMI</code> and <code>NAME_FAMILY_YOMI</code> indices of the <code>NAME String</code> array field's value, and the new <code>ORG_YOMI</code> field.</p>
PIMList UID	<p>You can now reference a PIMList by its UID. It may be preferable to reference a PIMList by its UID instead of its name because a UID is more constant. The name of a PIMList can change at any time and a different name may be assigned to the same PIMList after a software upgrade. In contrast, a PIMList's UID does not change during the lifetime of the PIMList and remains the same after the BlackBerry device software is upgraded. BlackBerry device applications that maintain a parallel database will want to reference the PIMList by its UID instead of its name in order to maintain referential integrity.</p> <p>The <code>getPIMListUID()</code> method in <code>net.rim.blackberry.api.pdap.BlackBerryPIMList</code> has been added to return the unique identifier for this PIMList.</p> <p>The <code>openPIMList(int pimListType, int mode, long uid)</code> method in <code>net.rim.blackberry.api.pdap.BlackBerryPIM</code> has been added to open a PIMList by its UID.</p>
Unified PIMLists	<p>You can use the following <code>net.rim.blackberry.api.pdap.BlackBerryPIM.openUnifiedPIMList()</code> methods to view two or more PIMLists with their items merged together:</p> <ul style="list-style-type: none"> • <code>BlackBerryPIMList openUnifiedPIMList(int pimListType, int mode)</code> • <code>BlackBerryPIMList openUnifiedPIMList(int pimListType, int mode, String[] names)</code> • <code>BlackBerryPIMList openUnifiedPIMList(int pimListType, int mode, long[] uids)</code>
Additional BlackBerry PIMList methods	<p>The following methods of the <code>net.rim.blackberry.api.pdap.BlackBerryPIMList</code> interface are now available:</p>

Item	Description
	<ul style="list-style-type: none"> • <code>public boolean isWirelessSyncCapable()</code> • <code>public boolean isWirelessSyncEnabled()</code> • <code>public int size()</code>
Linking application contacts to BlackBerryContacts	<p>The <code>net.rim.blackberry.api.pdap.contactlinking</code> package provides functionality to link application contacts to <code>BlackBerryContacts</code>.</p> <p>The following classes are available for use:</p> <ul style="list-style-type: none"> • <code>LinkedContactUtilities</code> • <code>AbstractLinkableContact</code> • <code>DefaultLinkableContact</code> <p>The following interfaces are available for use:</p> <ul style="list-style-type: none"> • <code>AddressBookFieldFactory</code> • <code>LinkableContact</code> • <code>LinkedContactConstants</code>

Messaging

Item	Description
Attachment API	You can programmatically download attachments to email messages using the <code>net.rim.blackberry.api.mail.AttachmentDownloadManager</code> class.

User interface

Item	Description
Absolute layout manager	The <code>net.rim.device.api.ui.container.AbsoluteFieldManager</code> class provides a <code>Manager</code> that allows placement of fields at specific x-y positions. Rather than based on the extent of the surrounding fields, fields can be placed anywhere on the screen and can even be overlapped.
Date and time picker	The <code>net.rim.device.api.ui.picker.DateTimePicker</code> class is a user interface component that is used to only pick a date, only pick a time, or pick the date and time together. While the <code>DateTimePicker</code> is a <code>Manager</code> , no additional fields are actually intended to be added to this.

Item	Description
Enhancements for string comparisons	<p>The <code>compareToHandleSpecialChars(Strings1, Strings2)</code> method in the <code>net.rim.device.api.util.StringUtilities</code> class can be used to do a case-insensitive comparison of two strings that handles special characters differently than strict ASCII order. This method replaces <code>StringUtilities.compareToOutlookOrder(String, String)</code>.</p>
EventInjector API	<p>The <code>net.rim.device.api.system.EventInjector</code> class has been improved for BlackBerry devices with a touch screen to allow for additional programmatic injection of events into the system using the <code>EventInjector</code> class.</p> <p>The <code>EventInjector.TouchEvent</code> has been added which includes fields and methods to set and get points with X and Y coordinates, as well as create and inject touch gestures such as swipe, tap, and click through.</p>
Eyelid field	<p>The <code>net.rim.device.api.ui.extension.container.EyelidFieldManager</code> class is used to display text or static image information on the top of a UI object for a period of time.</p>
FontManager API	<p>You can now load and remove custom fonts for system-wide or application-specific use using the <code>net.rim.device.api.ui.FontManager</code> class. You can load custom fonts into persistent memory (see <code>SYSTEM_FONT</code>) or into application memory (see <code>APPLICATION_FONT</code>).</p>
Menu Icon API	<p>You can add icons to a menu using new methods available from the <code>net.rim.device.api.ui.MenuItem</code> class. You can set a menu icon and determine an existing icon by using the <code>setIcon(Image icon)</code> and <code>getImageIcon()</code> methods.</p>
Menu Customization API	<p>The <code>net.rim.device.api.ui.component.Menu</code> class has been enhanced to allow you to determine and set the background, border and font for the menu. When displayed, the menu will be shown with the custom background, border and font. The following methods have been added to enable this functionality:</p> <ul style="list-style-type: none"> • <code>getBackground()</code> • <code>setBackground()</code> • <code>getBorder()</code> • <code>setBorder()</code> • <code>getFont()</code> • <code>setFont()</code>

Item	Description
Picture scrolling	The <code>net.rim.device.api.ui.extension.component.PictureScrollField</code> class is used to draw a row of images that can be scrolled from side-to-side using trackball or touch gestures.
Screen Transitions API	<p>The <code>net.rim.device.api.ui.TransitionContext</code> class contains all the necessary data to uniquely describe a transition animation between two screens. An instance of this class represents one of the following five types of standard animations:</p> <ul style="list-style-type: none"> • <code>TRANSITION_FADE</code> • <code>TRANSITION_SLIDE</code> • <code>TRANSITION_WIPE</code> • <code>TRANSITION_ZOOM</code> • <code>TRANSITION_NONE</code> <p>Each animation type supports a set of attributes that allow its behavior to be customized.</p>
Spin box manager	The <code>net.rim.device.api.ui.container.SpinBoxFieldManager</code> class is used to manage a set of <code>SpinBoxFields</code> . The spin box manager dictates the height of each row and the number of rows that are shown for each spin box. If a <code>SpinBoxField</code> is owned by a <code>Manager</code> then <code>SpinBoxField.setVisibleRows</code> and <code>SpinBoxField.setRowHeight</code> will have no effect. Note that row heights are fixed. Each row must have the same height.
Zoom screen	The <code>net.rim.device.api.ui.extension.container.ZoomScreen</code> class provides a capability to zoom-in and pan around images using API, with multi-touch used to define the zoom area.

GPS & Location-based services

Item	Description
JSR 179 Extensions	<p>The <code>net.rim.device.api.gps</code> package has been enhanced to include extensions to JSR 179 as shown below:</p> <ul style="list-style-type: none"> • <code>GPSInfo()</code> • <code>BlackBerryLocationProvider()</code> • <code>BlackBerryCriteria()</code> • <code>BlackBerryLocation()</code>

Item	Description
	<ul style="list-style-type: none"> • <code>SatelliteInfo()</code>
Reverse Geo-Coding	<p>You can now use latitude and longitude points to determine an address, city, province/state, or country using new methods available from the <code>net.rim.device.api.lbs.Locator</code> class. The class provides <code>Landmark[] reverseGeocode(Coordinates coord, int searchType)</code> and <code>Landmark[] reverseGeocode(int latitude, int longitude, int searchType)</code>.</p>
Location Picker API	<p>The Location Picker API, contained in the <code>net.rim.device.api.lbs.picker</code> package, permits applications to invoke the <code>LocationPicker</code> to display a graphical list for a user to select a location from. The list of facilities is configurable and might include the following:</p> <ul style="list-style-type: none"> • "My current location..." (GPS): If the BlackBerry device supports GPS, or if cell tower triangulation is available, then the user's current location may be selected. • "Find on a map..." (LBS): A user can search, pan, rotate and zoom the map to select a location. Developers can mark predefined locations on the map. If GPS is supported then the user's current location may also be shown on the map. The user will have access to their favorites and recent locations within the LBS application. • "Recently selected..." (Previously selected locations): The <code>LocationPicker</code> stores 10 recent selections by a user, which may be used by all applications. • "Application suggestions..." (predefined locations): You may provide predefined locations in the list. • "Using Google Maps™" (Registered location providers): Applications such as Google Mapscan register as location providers to provide alternative resources for users to select a location. • "Enter a location..." (Manual entry): A user may enter an address / location via the keyboard.

Debugging and Refining Code

Item	Description
On-Device Profiling	<p>The BlackBerry JDE has been improved to get profiling data from a BlackBerry device that has been attached to the BlackBerry JDE.</p>

Fixed issues

3

This section lists fixed issues for the BlackBerry® Java® Development Environment version 5.0.0 build 21.

Item	Description
SDR367368	The <code>BrowserField2</code> API was not included in the BlackBerry JDE.
SDR361470	The <code>ImageFactory.createImage(EncodedImage encodedImage)</code> method in the <code>net.rim.device.api.ui.image</code> package is not included in the BlackBerry JDE.
SDR359070	BlackBerry device applications that create an unencrypted SQLite® database did not work when run on a BlackBerry Smartphone Simulator in insecure mode.
SDR336034	If you used the BlackBerry JDE, debug information was missing from several modules.
SDR359947	The <code>net.rim.device.api.ui.TransitionContext</code> class improperly requires 3.key signing.
SDR359045	After you launch the <code>ObjectGroupingDemo</code> sample application, it throws an unexpected exception.
SDR335767	Clicking a <code>net.rim.device.api.browser.field2.BrowserField</code> URL link triggered an exception thrown by the <code>net.rim.device.api.browser.field2.ProtocolController</code> in certain circumstances.
SDR332438	Adding a <code>net.rim.device.api.ui.component.EditField</code> to a <code>net.rim.blackberry.api.phone.phonegui.PhoneScreenField</code> , and then invoking <code>PhoneScreenField.sendDataToScreen()</code> caused the BlackBerry Smartphone Simulator to crash.
SDR329815	If you use the BlackBerry JDE, the following public APIs required 3.key signing. <ul style="list-style-type: none"> <code>net.rim.device.api.browser.field2.*</code> <code>net.rim.device.api.browser.field2.debug.*</code> <code>net.rim.device.api.script.*</code> <code>org.w3c.dom.html2.*</code> <code>net.rim.device.api.io.Seekable</code>
SDR328588	<code>net.rim.device.api.system.EventInjector.TouchEvent.setPoint2(int x1, int y1)</code> threw an <code>IllegalArgumentException</code> when invoked with valid coordinates, the first touch point was valid, and the event was <code>MOVE</code> .

Item	Description
SDR306049	BlackBerry device applications using <code>net.rim.device.api.util.StringUtilities.compareToOutlookOrder (Strings1, Strings2)</code> did not compile. Existing BlackBerry device applications that used this method threw a run-time exception error on BlackBerry devices that were running BlackBerry® Device Software version 5.0.0.
SDR305298	Debug files were reported as "Not Found" when you attached a BlackBerry device to the BlackBerry JDE in a specific sequence.
SDR305018	After loading BlackBerry device applications onto a BlackBerry device using JavaLoader, the BlackBerry device applications did not appear in the Download folder of the BlackBerry device until the BlackBerry device was reset.
SDR304948	If you used BlackBerry JDE to compile and then access BlackBerry device applications using the BlackBerry Smartphone Simulator, opening the code profiling window by selecting View > Profile caused the BlackBerry JDE to immediately terminate while leaving the BlackBerry Smartphone Simulator running.
SDR304209	If you used BlackBerry JDE, the default properties window of a multi-value resource key was too small to show all keys.
SDR304006	If you used BlackBerry JDE, the Home Screen Position field under project properties did not affect the order of BlackBerry device applications.
SDR300638	If you used the BlackBerry Smartphone Simulator, you might have encountered a JVM Error 104, array index out of bounds exception.
SDR215764	If you used the BlackBerry Email Simulator, the simulator did not send or receive email messages.
SDR215580	If you used the <code>updatejad</code> tool, included in the BlackBerry JDE, to update duplicate .jad files, the <code>updatejad</code> tool did not display a warning message and incorrectly updated the .jad file.
SDR150080	If you use the BlackBerry JDE, a .cod file was not be created in the project directory or the working simulator directory when the Output File Name was set to blank ("").
BrowserField API	The <code>BrowserField</code> class in <code>net.rim.device.api.browser.field2</code> was not fully functional.

Sample applications

Item	Description
SDR330574	After using the CameraDemo to take a photograph and then attempting to return to the Camera screen, the viewfinder failed to restart.

Item	Description
SDR306751	If you used BlackBerry JDE to compile and then access the sample BlackBerry device applications using the BlackBerry Smartphone Simulator, some sample BlackBerry device applications did not appear on the BlackBerry device Home screen and some BlackBerry device applications could not be opened or threw an exception.
SDR304879	If you used BlackBerry JDE to compile and then access the sample BlackBerry device applications using the BlackBerry Smartphone Simulator, the OTA Sync Demo provided editable text fields to edit a contact but did not save any changes made.
SDR304642	If you used BlackBerry JDE to compile and then access the sample BlackBerry device applications using the BlackBerry Smartphone Simulator, running the SVG Animator Demo threw an uncaught exception (index 2 >= 2).
SDR304238	If you used BlackBerry JDE to compile and then access the sample BlackBerry device applications using the BlackBerry Smartphone Simulator, the Socket Demo application did not print the message, "Received: Hello Received: GoodbyeAndFarewell Done!", to the screen.
SDR304005	If you used BlackBerry JDE to compile and then access the sample BlackBerry device applications using the BlackBerry Smartphone Simulator, and if you used the HTTP Demo and issued two consecutive 'Fetch' commands, the "An outstanding fetch request hasn't yet completed!" dialog box message did not display.
SDR303665	If you used BlackBerry JDE to compile and then access the sample applications using the BlackBerry Smartphone Simulator, the sample Tic Tac Toe application did not highlight the focused square.

Known issues

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This section lists known issues for the BlackBerry® Java® Development Environment version 5.0.0 build 21.

Item	Description
Network API	<p>You cannot use the Network API on a secure BlackBerry device. The Network API requires signing with a 3.key</p> <p>Impact: You cannot deploy a BlackBerry Java application on a secure BlackBerry device that uses the functionality available from the <code>net.rim.device.api.io.transport</code> package.</p> <p>Workaround: Your BlackBerry device application can be tested on a BlackBerry Smartphone Simulator, and used on an unsecure BlackBerry device.</p>
MKS225857	<p>If you attempt to compile a class that extends either <code>net.rim.device.api.wlan.hotspot.HotspotAuthenticationAgent</code> or <code>net.rim.device.api.wlan.hotspot.HotspotCredentialsAgent</code>, a compilation error occurs.</p> <p>Impact: Unable to extend <code>HotspotAuthenticationAgent</code> or <code>HotspotCredentialsAgent</code>.</p> <p>Workaround: None</p>
MKS220277	<p>If you attempt to code sign .cod files using the BlackBerry JDE, a dialog box appears prompting you to generate a private signing key pair. After generating a private signing key, a code signing window appears. When you close the window, the sigtool.csk and sigtool.db files disappear. The application prompts you with the same dialog boxes the next time you attempt to code sign.</p> <p>Impact: The BlackBerry JDE private key pair is deleted once you close the signing tool window, with the key pair regenerated by the user the next time they attempt to use the signing tool.</p> <p>Workaround: None</p>
MKS215913	<p>The <code>net.rim.device.api.wlan.hotspot.HotspotInfo</code> class is not visible in the API reference for the BlackBerry JDE.</p> <p>Impact: <code>HotspotInfo</code> class information is not available.</p> <p>Workaround: None</p>

Item	Description
SDR368476	<p>If you add a <code>net.rim.blackberry.api.phone.PhoneListener</code> within your application and do not remove the listener before the application exits, the application continues to run in the background, and you cannot restart your application. An error message is generated stating that your application is still active.</p> <p>Impact: After terminating your application, it continues to run in the background .</p> <p>Workaround: Invoke <code>net.rim.blackberry.api.phone.Phone.removePhoneListener(PhoneListener pl)</code> to remove active phone listeners before your application terminates.</p>
SDR358926	<p>The icon associated with a BlackBerry device application does not switch to its focus icon when the application is brought into focus.</p> <p>Impact: BlackBerry device users do not see application focus icons.</p> <p>Workaround: None</p>
SDR336115	<p>Invoking new <code>net.rim.device.api.database.DatabaseSecurityOptions(int signerId)</code> with a valid <code>signer id</code> within a signed .cod file throws an <code>IllegalArgumentException</code> even if the .cod file is signed with that <code>signer id</code>.</p> <p>Impact: Calls to <code>DatabaseSecurityOptions(int)</code> fail.</p> <p>Workaround: Use <code>DatabaseSecurityOptions(boolean encrypted)</code> or <code>DatabaseSecurityOptions(CodeSigningKey key)</code> instead.</p>
SDR336322	<p>Cookies are not set when accessing a web page that sets cookies using a <code>net.rim.device.api.browser.field2.BrowserField(BrowserFieldConfig)</code> with the default <code>net.rim.device.api.browser.field2.BrowserFieldConfig</code>.</p> <p>Impact: Web pages that rely on cookies might not work correctly.</p> <p>Workaround: Do not use the default <code>net.rim.device.api.browser.field2.BrowserFieldConfig</code>.</p>
SDR324139	<p>Recording, stopping, and committing a video recording, changing the video recording location from File to Stream, and then starting video recording again might cause the BlackBerry device to crash.</p> <p>Impact: Unable to alter storage location to Stream during a video recording session.</p>

Item	Description
	<p>Workaround: Set the video recording location correctly and do not change it during a recording session.</p>
SDR324117	<p>Video recording to a stream is not working correctly. For example, if you start the Video Recording Demo with the BlackBerry Smartphone Simulator, select any encoding scheme, select Stream from the Recording Location drop-down list, and start recording, the camera display disappears. After stopping and then committing the recording, the sample application throws a <code>java.lang.IOException (Camera is busy)</code>.</p> <p>Impact: You cannot record video to a stream.</p> <p>Workaround: None</p>
SDR318654	<p><code>net.rim.device.api.browser.field2.BrowserField</code> does not release focus on a BlackBerry device where the cursor becomes locked in web browsing mode and focus does not leave the field. The following steps reproduces this problem:</p> <ol style="list-style-type: none"> 1. Add an <code>net.rim.device.api.ui.component.EditField</code> to a <code>net.rim.device.api.ui.Manager</code> that supports <code>VERTICAL_SCROLL</code> and <code>HORIZONTAL_SCROLL</code>. 2. Instantiate a <code>BrowserField</code> and add it to the same <code>Manager</code>. 3. Push the <code>Manager</code> on to the display stack. 4. Invoke <code>net.rim.device.api.browser.field2.BrowserField.displayContent()</code> to cause the <code>BrowserField</code> to render some HTML. 5. Scroll the trackball down from the <code>EditField</code> to the <code>BrowserField</code> to get focus on the <code>BrowserField</code>. 6. Scroll back to the <code>EditField</code> and click the trackball. <p>Impact: Focus cannot be away from the <code>BrowserField</code>.</p> <p>Workaround: None</p>
SDR268388	<p>There are broken links in the API reference for the BlackBerry JDE that are often caused by a difference in capitalization.</p> <p>Impact: It is not always possible to follow a link to required information.</p> <p>Workaround: None.</p>

Item	Description
SDR241224 SDR215580	<p>If you call updateJad.exe and pass two identical filenames as parameters, the application does not correctly update the file.</p> <p>Impact: The updateJad.exe can corrupt your application file.</p> <p>Workaround: Do not call updateJad.exe and pass two or more identical filenames as parameters.</p>
SDR215764	<p>The Email Services Simulator does not send or receive emails.</p> <p>Impact: You cannot test sending and receiving email by using Email Services Simulator.</p> <p>Workaround: None</p>

Sample applications

Item	Description
MKS225624	<p>The VideoRecorder sample application throws a <code>ControlledAccess</code> exception when run on secure simulator.</p> <p>Impact: You cannot use the VideoRecorder sample application on a secure simulator.</p> <p>Workaround: None</p>
MKS224724	<p>The Multiplayer Tic-Tac-Toe sample application does not work after the second move.</p> <p>Impact: You cannot use the Multiplayer Tic-Tac-Toe sample application.</p> <p>Workaround: None</p>
MKS217730	<p>If you compile the BufferedPlayback sample application by using the BlackBerry JDE version 4.6.1 or 4.7.0 and run the sample application on a BlackBerry device running BlackBerry® Device Software version 5.0.0.168 Bundle 239, the sample application throws a <code>ClassNotFoundException</code> exception.</p> <p>Impact: The BufferedPlayback sample application cannot always be used.</p> <p>Workaround: Recompile the BufferedPlayback sample application to sync with the target version of BlackBerry Device Software.</p>
MKS216069	<p>The SVG Midlet Demo application throws an <code>IllegalArgumentException</code> on launch.</p> <p>Impact: You cannot use the SVG Midlet Demo application.</p> <p>Workaround: None</p>

Item	Description
MKS113335	<p>The BluetoothDemo application adds a "Connect to <BlackBerry device name>" menu item the sample application is used on a BlackBerry device that has been previously paired with another BlackBerry device.</p> <p>Impact: The BluetoothDemo application does not work with paired BlackBerry devices.</p> <p>Workaround: None</p>
SDR362570	<p>After you compile and launch the NotificationsDemo in a simulator and select Notify (ID1) from the menu, the sample application displays an error.</p> <p>Impact: The NotificationsDemo sample application appears to be non-operational.</p> <p>Workaround: In the BlackBerry JDE, press F5 a few times to return the BlackBerry Smartphone Simulator back to a running state.</p>

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