



BlackBerry Java Development Environment

version 4.6.0

Release Notes and Known Issues List

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About the BlackBerry JDE

The BlackBerry® Java® Development Environment is a fully integrated development environment and simulation tool for building Java 2 Platform, Micro Edition applications for Java-based BlackBerry® devices.

It is a Mobile Information Device Profile (MIDP) compliant J2ME™ environment for developers who wish to maintain seamless portability in their wireless applications.

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 BlackBerry Smartphone Simulators that were available when that version of the BlackBerry JDE was made public. You can download additional BlackBerry Smartphone Simulators from the BlackBerry Developer Zone web site:

<http://www.blackberry.com/developers/index.shtml>.

Documentation

The following documents for the BlackBerry JDE version 4.6.0 are available on the BlackBerry Developer Zone web site: <http://www.blackberry.com/developers>.

- BlackBerry Java Development Environment Development Guide
- Multimedia Development Guide
- GPS and BlackBerry Maps Development Guide
- BlackBerry JDE Component Package release notes
- Release Notes and Known Issues List

New content for the BlackBerry JDE Version 4.6.0

Document	API or function	Topic name	Location in document
BlackBerry Java Development Environment Development Guide	net.rim.device.api.ui.decor.Background Class	Setting the background for a screen in a BlackBerry Application	Chapter 1
	net.rim.device.api.ui.decor.Border Class	Setting the border for a field in a BlackBerry Application	Chapter 1
	net.rim.device.api.ui.FIELD.FIELD_LEADING net.rim.device.api.ui.FIELD.FIELD_TRAILING	Aligning a field to the beginning or end of a line of text	Chapter 1
	net.rim.device.api.system.sensor	Using sensors on a BlackBerry device	Chapter 2

Document	API or function	Topic name	Location in document
	net.rim.device.api.applicationcontrol	Working with messages from access control	Chapter 11
	net.rim.blackberry.api.message package	Using custom messages and folders	Chapter 12
GPS and BlackBerry Maps Development Guide	net.rim.device.api.lbs.Locator	Obtaining location information for an address	Chapter 3
	net.rim.blackberry.api.maps.MapView	Start a BlackBerry device application from BlackBerry Maps	Chapter 3
Multimedia Development Guide	javax.microedition.media.control.VideoControl	Create a player that displays an image from the camera viewFinder	Chapter 2
BlackBerry Device Applications Integration Guide	net.rim.blackberry.api.mail.MimeBodyPart net.rim.blackberry.api.mail.Message	Retrieve the body of a message without an attachment	Chapter 3
	net.rim.blackberry.api.mail.MimeBodyPart net.rim.blackberry.api.mail.Message	Retrieve the body of a message with an attachment	Chapter 3
	net.rim.blackberry.api.mail.SendListener	Notify an application that an email message is about to be sent	Chapter 3
	net.rim.blackberry.api.mms.SendListener net.rim.blackberry.api.mms.MMS	Notify an application that an mms message is about to be sent	Chapter 3

Document	API or function	Topic name	Location in document
	net.rim.blackberry.api.sms.SendListener net.rim.blackberry.api.sms.SMS	Notify an application that an sms message is about to be sent	Chapter 3
	net.rim.blackberry.api.pdap.PIMListListener	Notify an application when a list of events changes	Chapter 4
	net.rim.blackberry.api.pdap.PIMListListener3	Notify an application when the default list of events on a BlackBerry device changes	Chapter 4
	javax.microedition.pim.PIM.listPIMLists	Retrieve multiple lists of events	Chapter 4
	net.rim.blackberry.api.pdap.PIMListListener	Notify an application when a list of contacts changes	Chapter 4
	net.rim.blackberry.api.pdap.PIMListListener	Notify an application when a list of tasks changes	Chapter 4

Getting started with the BlackBerry JDE

You can start the BlackBerry® Java Development Environment in one of two ways:

1. From the Start menu, select:

Programs > Research In Motion > BlackBerry JDE 4.6.0 > JDE

2. Invoke `ide.bat`, located in the `bin` subdirectory of the BlackBerry JDE installation directory.

Internationalization

The BlackBerry® Java Development Environment contains tools that assist with internationalization (i18n) efforts. It is important to follow naming conventions. All the sample applications include the use of i18n. Please review those samples for more information.

Note: The `.rrc` and `.rrh` files must exist in the same directory for successful compilation.

Note: You should define resource keys in uppercase letters only.

See the *BlackBerry Java Development Environment Development Guide* or the *BlackBerry Integrated Development Environment Online Help* for more information about localization.

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:

- 3.1 The `httppushdemo` sample includes a server component at `samples/com/rim/samples/server/httppushdemo`
- 3.2 The `socketdemo` sample includes a server component at `samples/com/rim/samples/server/socketdemo`
- 3.3 The `browserpushdemo` sample includes a server component at `samples/com/rim/samples/server/browserpushdemo`
- 3.4 The `smsdemo` sample includes a server component at `samples/com/rim/samples/server/smsdemo`
- 3.5 The `BrowserMultipartPushDemo` sample includes a server component at `samples/com/rim/samples/server/browsermultipartpushdemo`
- 3.6 The `GPS Demo` sample includes a server component at `samples/com/rim/samples/server/gpsdemo`

BlackBerry JDE version 4.6.0 system requirements

Your system must meet the following requirements to support the BlackBerry® Java™ Development Environment:

- Microsoft® Vista™ or Windows XP
- Intel® Pentium® III processor or compatible (800 MHz or higher)
- 256 MB RAM
- 500 MB free hard disk space

- Java[®] SE Development Kit (JDK) version 5 or version 6 (download from the Sun Microsystems web site). The <bin> directory of the Java SDK must be part of the system's PATH variable.
- Java[®] SE Development Kit (JDK) version 6 is required for the BlackBerry MDS Simulator version 4.1.5.
- Microsoft DirectX[®] 8.0 or greater (for the BlackBerry Smartphone Simulators)

Functional changes

This section lists functional changes for BlackBerry[®] Java Development Environment (JDE) version 4.6.0.

Creating an application with spell check functionality.	You can use the spellcheck API to create a BlackBerry application that can check the spelling of text in certain fields and display a UI that the user can use to resolve spell checking issues.
Support for JSR 226	The BlackBerry [®] Java Development Environment (JDE) version 4.6.0 supports rendering scalable 2D vector graphics and files Scalable Vector Graphics (SVG) format.
Capturing an image from the camera.	A BlackBerry application can now work with an image taken from the camera's viewfinder.
Creating a UI with a filterable text list.	You can use the KeywordFilterField class, located in the net.rim.device.api.ui.component package, to provide a UI field that consists of a single text input field and a list of selectable elements.
Aligning a field to the beginning or end of a line of text.	You can create an application that can align a field object to the beginning of a line of text by using the flag Field.FIELD_LEADING. For example, if you create a field with the alignment flag Field.FIELD_LEADING and add the field to a VerticalFieldManager, if an application's locale is English, the field aligns to the left. If the application's locale is Arabic, the field aligns to the right.
New size limit of RecordStore objects.	The size limit of a RecordStore object is now 512 KB.
Specifying the RGB values of each pixel in a bitmap.	To set a bitmap image by specifying the RGB values for each of the pixels in the bitmap, invoke Bitmap.setRGB565(byte[] rgbData, int offset, int scanLength, int x, int y, int width, int height).
Working with messages from access control.	You can use the components of the net.rim.device.api.applicationcontrol package to allow an application to display custom messages to a BlackBerry [®] device user when the application tries an operation that the BlackBerry device user must permit. An application can implement the ReasonProvider interface to provide a String that the system includes in the permission request dialog. Example permissions include PERMISSION_PHONE for an operation that requires access to the phone functionality of the BlackBerry device.
Adding custom messages, folders, and indicators.	You can use the net.rim.blackberry.api.message list package to create custom messages and folders that your application manages and that are included in the message list. You can also use the net.rim.blackberry.api.message list package to create and add custom indicators to the Home screen.
Obtaining location information for an address.	You can use the Locator class to obtain latitudinal and longitudinal information for an address and send address information to an LBS locator server. If the request is successful, the server returns an enumeration that contains data for the address. A BlackBerry application can request latitudinal and longitudinal information for one

	address at a time.
Clearing data from the map that BlackBerry Maps displays.	You can use the id and clear attributes of the <lbs> element in a location document to remove data from a map that BlackBerry Maps displays.
Working with HTML email messages.	<p>On a BlackBerry® device with the BlackBerry® Device Software version 4.5, a message received from a BlackBerry® Enterprise Server version 4.1.6 or BlackBerry® Internet Service version 2.5 could be an HTML or Rich-Text email.</p> <p>You can create an application that can receive HTML email messages and perform actions, such as retrieving the body of a message with or without an attachment.</p>
Listening for sent messages.	You can create an application that receives notification when an email, SMS Text, or MMS message is about to be sent.
Retrieving multiple lists of events.	The PIM API now allows for multi-calendar support. A BlackBerry application can now retrieve additional PIM lists using the name of the calendar or return a string array of available lists based on the specified type.
Using the MathUtilities API.	<p>The MathUtilities API now contains the following methods:</p> <ul style="list-style-type: none"> ▪ <code>double acos(double x)</code> - Return the arc cosine of the value x. ▪ <code>static double asin(double x)</code> - Return the arc sine of the value x. ▪ <code>static double atan(double x)</code> - Return the arc tangent of the value x. ▪ <code>static double atan2(double y, double x)</code> - Converts rectangular coordinates (x,y) to polar coordinates (r,theta). ▪ <code>static double pow(double x, double y)</code> - Return x raised to the power of y.
Working with time zone data	<p>BlackBerry applications with time zone dependencies can use the following methods to leverage the built-in time zone functionality.</p> <ul style="list-style-type: none"> ▪ <code>net.rim.device.api.system.Device.setTimeZone(TimeZone)</code> ▪ <code>net.rim.device.api.util.TimeZoneUtilities.getAvailableTimeZones()</code> ▪ <code>net.rim.device.api.util.TimeZoneUtilities.getDisplayName(TimeZone, int)</code> ▪ <code>net.rim.device.api.util.TimeZoneUtilities.getDisplayNames(int)</code>

Create filterable lists. A BlackBerry® device application can create a list that can be filtered using the information a BlackBerry device user enters into a field. When the user enters information into the KeywordFilteredField field, the field uses prefix matching and a set of keywords for each list item to filter items displayed from the readable list.

Known issues

This section lists known issues for the BlackBerry Java Development Environment (JDE) version 4.6.0.

- SDR180989** If you install the BlackBerry® Java® Development Environment on a computer with Microsoft® Vista™, when you build the samples workspace in the BlackBerry® Integrated Development Environment, the .cod files for the samples are placed in the **project** directory, but not placed into the **simulator** directory.
Impact: From the BlackBerry Smartphone Simulator, you may not be able to add the .cod file for a sample.
Workaround: From Windows® Explorer, copy the .cod files from the **project** directory to the **simulator** directory.
- SDR181149** On a computer with Windows® XP or Microsoft® Vista™, when you start a BlackBerry® Smartphone Simulator from outside of the BlackBerry® Java® Development Environment and simulate a USB cable connection, the BlackBerry® JDE does not detect the BlackBerry Smartphone Simulator.
Impact: On a computer with Windows® XP or Microsoft® Vista™, you cannot connect a BlackBerry Smartphone Simulator to the debug tool in the BlackBerry JDE.
Workaround: None
- SDR179228** When the message list sends an SMS message, SMS SendListeners are not notified.
Impact: SMS SendListeners are not notified when an SMS message is sent from the message list
Workaround: None.
- SDR187395** When the message list sends an MMS message, MMS SendListeners are not notified.
Impact: MMS SendListeners are not notified when an MMS message is sent from the message list
Workaround: None.
- Using the BlackBerry Smartphone Simulator with Windows Vista.** If you install the BlackBerry® Java® Development Environment on a computer with Windows Vista™, if Use Account Control is turned on, launching the BlackBerry® Smartphone Simulator might produce error messages and the simulator might not start.
Impact: On a computer with Windows Vista™, if Use Account Control is on, you might not be able to use the BlackBerry Smartphone Simulator.
Workaround: In Windows Vista™, disable Use Account Control.
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