“Unofficial” BlackBerry Developers Handy Guide
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Forward

Ever think to yourself:

“Man... I sure wish I could get someone to read the entire blackberry.com/developers website, and tell me exactly what I need to know on how on develop for the BlackBerry platform and maybe even give me direct links to download everything”.

Well here is what you need to know, where to get it, and how to rock it!

Rich Balsewich
Research in Motion
Current Events

If you haven’t heard, then let me tell you. These are just some of the events that you should be either in attendance or telling your boss about or both. How else are you going to make the boss look good in front of their boss and their boss’s boss or even their boss’s boss’s boss’s boss.

http://www.blackberryworld.com

PlayBook 2.0 is out!

We have seen over 90% of you already upgrade, so what’s wrong with the other 10%. Check out all the new features and cool social integration. It’s not just a toy!
BlackBerry Development

It has never been easier to deliver highly effective real world applications on the BlackBerry Platform. Whether you are focusing at delivering handheld applications, BlackBerry PlayBook applications, or even mobile applications that can run cross-platform, or on any platform, Research in Motion provides you with the options that meet your skill sets. No need to go out and learn all new languages, platforms, or even tools.

Like the old saying “you can build a house with just a hammer...” not sure who would do that... but choose the right tool for the job.
Meet Your New Favorite BlackBerry Bookmarks

Everyone needs a few good friends. Someone you can count on or “click on” anytime you’re in need. Here are a few of my good friends. These great places to start should be added to your browser IMMEDIATELY! I highly recommend browser bar shortcuts to save a few clicks.

BlackBerry Developer Zone:  http://developer.blackberry.com

Our developer zone has just been remodel! Now it’s easier to find and navigate to the topics that meet your project. This link brings you right to the landing page for BlackBerry Developer Zone. Not a bad place to get started.

If you haven’t registered already, start there. It’s free and gives you access to everything BlackBerry!
BlackBerry Resource Center: [http://us.blackberry.com/developers/resources/](http://us.blackberry.com/developers/resources/)

Ever hear “you’re only as good as your resources”? Luckily we have A LOT of them. Whether you’re looking for a specific simulator to test your application, or looking to connect to everything BlackBerry. This link brings you right to that landing page. **BlackBerry Developer “Resources”**.


If you haven’t heard about **BlackBerry Jam Sessions**, seriously, who hasn’t heard of this! Go there now and join in on the fun! If you liked any of the presenters you have seen from RIM, you will LOVE the BlackBerry community.
If you haven’t been following what people have been doing with Web Technologies (HTML5, CSS3, JavaScript) lately, then you go hear IMMEDIATELY! Long gone are the days of using strange technologies to create mobile applications. Web technologies are totally in and BlackBerry WebWorks! Let RIM handle the complicated native calls, you just focus on simple lines of JavaScript to write enterprise grade applications.

This link brings you right to the landing page for BlackBerry WebWorks landing page. Not a bad place to get started for seeing how you can exploit web technologies to write cool native apps. There are sample applications, documentation and tool downloads.


This link brings you to the BlackBerry WebWorks API guide. You might as well launch this before you even start opening whatever Integrated Development Environment (IDE) you’re using to write code. Has code snippets for all available extensions, which means copy and paste will be fun!
If you’re a Java guru then take your SUPER APPS native! Our handhelds like Java, so should you! There are 20,000+ APIs you can exploit on the platform. Since our platform has been around for more than just a FEW years, we have tons of historic examples to learn from.

BlackBerry Java SDK: http://developer.blackberry.com/java

This link brings you right to the landing page for BlackBerry Java SDK Documentation landing page. Be prepared to read!

BlackBerry Java SDK Docs: http://developer.blackberry.com/java/documentation

This link brings you to the BlackBerry Java API guide. You might as well launch this before you even start opening the Integrated Development Environment (IDE) you’re using to write code. Has code snippets for all available extensions, which means copy and paste will be fun.

BlackBerry Java API Reference: http://www.blackberry.com/developers/docs/7.1.0api/
BlackBerry Native SDK:  http://developer.blackberry.com/native/

This link brings you right to the landing page for BlackBerry Tablet Native Development landing page. Not a bad place to get started to see what can be done with our native tools, especially for the PlayBook. 2.0 is out! 2.0 is out! 2.0 is out!

BlackBerry Native SDK Docs: http://developer.blackberry.com/native/documentation

This link brings you right to the landing page for BlackBerry Tablet Native Documentation landing page. Be prepared to read!


This link brings you to the BlackBerry Native API guide. Might as well launch this before you even start opening the Integrated Development Environment (IDE) you’re using to write code. Has code snippets for all available extensions, which means copy and paste will be fun.
**BlackBerry Adobe Air:** [http://developer.blackberry.com/air](http://developer.blackberry.com/air)

If you have been building flashy applications for the past 10 years, then you have probably been using a host of Adobe products like Flash and Air. This link brings you right to the landing page for BlackBerry Adobe Air landing page. Not a bad place to get started for Adobe developers that already have application assets to port to the platform.

---

**BlackBerry Adobe Air SDK Docs:** [http://developer.blackberry.com/air/documentation](http://developer.blackberry.com/air/documentation)

This link brings you right to the landing page for BlackBerry Adobe Air Documentation landing page. Be prepared to read!

---


This link brings you to the BlackBerry Adobe Air API guide. You might as well launch this before you even start opening the Integrated Development Environment (IDE) you’re using to write code. Has code snippets for all available extensions, which means copy and paste will be fun.
BlackBerry Runtime for Android: http://developer.blackberry.com/android/

This link brings you right to the landing page for BlackBerry Runtime for Android Apps landing page. Not a bad place to get started for Android developers that already have application assets to port to the platform. Test your applications with our online validation tool!

BlackBerry Runtime for Android API Reference: http://developer.android/apisupport

This link brings you to the BlackBerry Runtime for Android API guide. This is a good place to find out which APIs are supported and which of your Android APIs are not. *Note: changes are mostly focused at Intellectual property libraries. We even have an online tool to show what (if at all) would need to be changed for porting.

And I saved the best for last, just to make sure you’re still reading...
Blackberry (Open Source Projects):  https://github.com/blackberry

This link is in GOLD font because that’s what is hosted there, 24K IT gold! If you have a best friend, well call them right NOW and tell them it’s been a good run. Meet your new best friend!

If you’re looking for great projects, examples, JavaScript resources, the ENTIRE WebWorks platform source, boom chop! There are currently 42 Repositories AND GROWING DAILY! You can even find more samples, sources, and projects under other Organization Members personal spaces. So when you are at the next BlackBerry event, ask about their Repository. All the cool stuff you’ve seen at DevCon, yeah it’s there and many others.

BlackBerry Support Community:  http://supportforums.blackberry.com

BlackBerry has been around a long time which means we have an EXTENSIVE SUPPORT COMMUNITY! Meet your new peers, there are over 500,000 of you. If you don’t believe me, check it out yourself. This link brings you to the landing page for the RIM community. You can access all of our various communities, since we are a PLATFORM of SERVICES vs. some of those other “Phone” companies, we have tons of communities!!!

This link brings you to the Inside BlackBerry, Research In Motion (RIM)’s BlackBerry® smartphone blog. While you’ve been avidly discussing smartphones every day – what you love and what you’ve just discovered – we’ve been listening intently. And we feel that we can add our voice and contribute to the community.

**BlackBerry on YouTube:** [http://www.youtube.com/user/BlackBerry](http://www.youtube.com/user/BlackBerry)

Have you seen a cool video from Research in Motion at one of our conferences and want to watch it again? With over 30+ million Views, you’re not the only one! This link brings you to the BlackBerry YouTube channel.

**BlackBerry on Twitter:** [http://twitter.com/#!/BlackBerry](http://twitter.com/#!/BlackBerry)

It’s a social thing. Ever wonder how you can find out about all the cool things happening at BlackBerry. Follow us!
Now You’re Going to Need Some Tools to Build

Since the BlackBerry platform offers several difference development approaches, figure out what works best for what you’re trying to do.

A. BlackBerry WebWorks HandHeld:

Select the development platform that suits you to
develop using web standard technologies like
HTML/HTML5, CSS and JavaScript. That pretty much
means you can use anything as simple as NotePad,
complex as Adobe DreamWeaver, or even over kill as
Microsoft Visual Studio. Since Eclipse is free and
supports Java and is friendly to web technologies, you
can use Eclipse... In fact, you can even turn Eclipse into
a “Frankstein Eclipse” by installing all the plug-ins into
1 version. (that discussion is outside the scope of this
manual, but totally possible for the daring).... or

System Requirements

BlackBerry WebWorks SDK for Smartphones

<table>
<thead>
<tr>
<th>Compiler</th>
<th>Java® SE 6 JDK 32-bit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processor</td>
<td>Intel® Pentium® 4 or AMD Athlon™ desktop processor 2 GHz or faster</td>
</tr>
<tr>
<td>Storage space</td>
<td>1 GB or more available hard disk space</td>
</tr>
<tr>
<td>Memory</td>
<td>2 GB RAM or more</td>
</tr>
<tr>
<td>Monitor</td>
<td>Resolution of 1024 x 768 or higher</td>
</tr>
<tr>
<td>Operating system</td>
<td>Windows® XP SP3 32-bit, Windows® 7 32-bit or 64-bit, or Mac OS X 10.6.4 or later.</td>
</tr>
</tbody>
</table>
Pick the IDE of Choice... If you’re a java guy, you’re probably already using Eclipse. You can either make a super Eclipse by installing additional plug-ins (e.g.: Web, Java, etc) or if you’re going the Web route, check out Aptana. Not a plug-in nor a plug for the company, just a cool version of Eclipse for Web technologies, and it’s free!

1. Java JDK version 1.6.x -

   i. Note: Ensure JDK is downloaded not JRE and Java 1.7 is not supported so you have to download an archive version. Oracle buried it so you will have to dig.


   i. Note: Eclipse has many flavors, choose wisely, or get Eclipse IDE for Java Developers, then start getting the additional plug-ins for Web.

OR

Note: This open source tool is quite cool for building web technologies, especially when it comes to JavaScript. Not RIM sponsored or anything, but found to be used by a lot of web developers in the industry.


Ready to test your app and squash some bugs? Simply point the Ripple Emulator to your app's HTML files to get started.

The Ripple Emulator includes:

- Support for multiple devices, platforms and form factors
- Emulation of WebWorks and PhoneGap™ APIs
- Emulation of device sensors such as GPS and Accelerometer
- Quick web browser like environment without the need to compile your app
- Web Inspector for debugging, profiling and memory usage tools.
- Integrates with the BlackBerry WebWorks SDK

Ready to package your application with WebWorks? When you're ready to try your app on a device or simulator, download the WebWorks SDK and configure Ripple for seamless integration.
If you’re a developer link me, you probably have a certain way of setting up your development environment. Take a look at the following image...

Hmmm using Ripple pointed directly at your project file means you can make a change and simply click “Refresh” inside of Ripple to see **INSTANT CHANGES!!**

https://bdsc.webapps.blackberry.com/html5/documentation/ww_developing/accessing_a_local_project_in_ripple_1948645_11.html

3a. **Ripple Plug-in for Google Chrome** - The early version of Ripple was a Google Chrome plug-in which is still an available option for rapidly testing changes. So if you have Chrome, or would like to try it.


   B. RIM Ripple Emulator (for Google Chrome) - [http://ripple.tinyhippos.com/](http://ripple.tinyhippos.com/)

   Note: This download requires you to navigate to this link via Google Chrome to install.

   Note2: Modify Google Chrome’s shortcut to

   ```
   [chrom_path]\chrome.exe --disable-web-security --allow-file-access-from-files
   ```

   Note 3: Enable the “Allow access to file URLs” in Chrome – Options > Tools > Extensions

### Extensions

![Ripple Mobile Environment Emulator (Beta) 0.9.1](https://bdsc.webapps.blackberry.com/html5/documentation/ww_developing/accessing_a_local_project_in_ripple_1948645_11.html)

i. Note: Might as well get both the Smartphone and Tablet OS SDKs. As part of the BlackBerry WebWorks roadmap, this will become a single download in the future. The SDK is used for packaging your application to test out on simulators and actual devices.

---

**Package and Distribute**

Are you ready to start packaging your BlackBerry WebWorks applications? Choose one of the following SDKs to help you package your application files and distribute your app.

- **Smartphone SDK**
  - For Windows (204 Mb) 2.3.1
  - [For Mac? | System Requirements | Previous Versions]

- **Tablet OS SDK**
  - For Windows (300 Mb) 2.2.0
  - [For Mac? | System Requirements | Previous Versions]

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BlackBerry WebWorks
For Smartphones

Creating apps for the BlackBerry smartphone? Use this SDK to compile, package and deploy your smartphone-ready application.

[How to get up and running]

BlackBerry WebWorks
For Tablet OS

Got an app that takes advantage of the larger screen size of the BlackBerry PlayBook? Use this SDK to compile, package and deploy your tablet-ready application.

[How to get up and running]
B. BlackBerry WebWorks Tablet:

Since we’re talking BlackBerry WebWorks here, it’s pretty much the same handheld tools options for building your software. Only difference comes when you are going to package your application and test it on the PlayBook simulator or an actual device. So you can repeat steps 1 - 3 last listed above. When it comes to installing the Tablet OS SDK there is a prerequisite to install the Adobe Air SDK 2.5+. We support the latest 3.x too!

System Requirements

<table>
<thead>
<tr>
<th>BlackBerry WebWorks SDK for Tablet OS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Runtime environment</td>
</tr>
<tr>
<td>Compiler</td>
</tr>
<tr>
<td>Processor</td>
</tr>
<tr>
<td>Virtual environment</td>
</tr>
<tr>
<td>Storage space</td>
</tr>
<tr>
<td>Memory</td>
</tr>
<tr>
<td>Monitor</td>
</tr>
<tr>
<td>Operating system</td>
</tr>
</tbody>
</table>


   i. Note: You must install the Adobe SDK first as the Tablet OS SDK will prompt you for install location during installation.
C. Adobe Air Applications

Leverage your existing Adobe® tools and content to create breakthrough applications for the BlackBerry® Tablet OS. If you’re an existing BlackBerry developer, add a new dimension to your development skills and create compelling applications for a new mobile device that complements your existing applications.

Flash, AIR, and Flex are supported on BlackBerry® PlayBook™ OS v1.0 and above.

## System Requirements

<table>
<thead>
<tr>
<th>BlackBerry Tablet OS SDK for Adobe AIR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Runtime environment</strong></td>
</tr>
<tr>
<td>- Both of the following:</td>
</tr>
<tr>
<td>- Java™ Runtime Environment 1.6</td>
</tr>
<tr>
<td>- Adobe® AIR SDK 2.1 or higher</td>
</tr>
<tr>
<td><strong>Development environment</strong></td>
</tr>
<tr>
<td>- Adobe® Flash Builder® 4.6 or higher</td>
</tr>
<tr>
<td><strong>Virtual environment</strong></td>
</tr>
<tr>
<td>- BlackBerry Tablet Simulator requires VMware® Player on Windows or VMware® Fusion on Mac OS X</td>
</tr>
<tr>
<td><strong>Processor</strong></td>
</tr>
<tr>
<td>- Intel® Pentium® IV or AMD Athlon™ desktop processor 2 GHz or faster</td>
</tr>
<tr>
<td><strong>Storage space</strong></td>
</tr>
<tr>
<td>- 1 GB available hard disk space or more</td>
</tr>
<tr>
<td><strong>Memory</strong></td>
</tr>
<tr>
<td>- 2 GB RAM or more</td>
</tr>
<tr>
<td><strong>Monitor</strong></td>
</tr>
<tr>
<td>- Resolution of 1024 x 768 or higher</td>
</tr>
<tr>
<td><strong>Operating system</strong></td>
</tr>
<tr>
<td>- Windows® XP SP3, Windows® 7, or Mac OS X 10.8.6 or later</td>
</tr>
</tbody>
</table>

   a. Note: FlashBuilder supports and works with the Tablet OS nicely.


**Download The SDK**

Are you ready to start building your BlackBerry Tablet OS application? Download the following SDK to help you build your Adobe AIR application and prepare it for distribution.

The BlackBerry Tablet OS SDK for Adobe AIR lets you:
- Easily adapt and deploy existing Adobe AIR/Flash content.
- Access Native APIs with Adobe AIR Native Extensions.
- Build applications with a Native BlackBerry PlayBook look and feel.

Download File:

BlackBerry Tablet OS SDK for Adobe AIR
For Windows (101 MB) 2.0

For Mac OS | System Requirements
D. BlackBerry Native SDK Applications

So who is the Native SDK for? Developers who know they need the highest level of performance from their applications – like 3D game developers for example. Or developers who need to do something that they can’t do in the other frameworks and might be able to do using the NDK. Or those of you who already have an existing C++ application that you want to port to the PlayBook. Of course, if you just want to play around with the NDK to learn what’s possible (and there’s a lot), that’s encouraged as well!

### System Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Runtime environment</strong></td>
<td>Java® SE 6 Runtime Environment</td>
</tr>
<tr>
<td><strong>Processor</strong></td>
<td>Intel® Pentium® II or AMD Athlon™ desktop processor 2.0 Hz or faster</td>
</tr>
<tr>
<td><strong>Virtual environment</strong></td>
<td>VMware® Player to run the BlackBerry PlayBook Simulator on Windows or Linux systems</td>
</tr>
<tr>
<td></td>
<td>VMware Fusion to run the BlackBerry PlayBook Simulator on Mac systems</td>
</tr>
<tr>
<td><strong>Storage space</strong></td>
<td>1 GB or more available hard disk space</td>
</tr>
<tr>
<td><strong>Memory</strong></td>
<td>2 GB RAM or more</td>
</tr>
<tr>
<td><strong>Monitor</strong></td>
<td>Resolution of 1024 x 768 or higher</td>
</tr>
<tr>
<td><strong>Operating system</strong></td>
<td>Windows® XP SP3, Windows® Vista® Ultimate or Enterprise, Windows® 7, or Ubuntu® 11.04, Mac OS X 10.6 Snow Leopard, and Mac OS X 10.7 Lion</td>
</tr>
</tbody>
</table>

In order to run the installer and the IDE on Ubuntu 64-bit, you need to install the 32-bit libraries:

1. sudo apt-get install ia32-libs
2. Answers yes to all the questions

1. **Check System requirements for installing SDK:**

2. **Download Native SDK for Tablet OS:** [http://developer.blackberry.com/native/download](http://developer.blackberry.com/native/download)

### Download and Create

**Native SDK**

Are you ready to start creating with the Native SDK? Begin here.

- C/C++ based IDE development platform
- STL and PDB/ library support (including multithreading)
- OpenGL ES 1.1 and 2.0 for 2D and 3D graphics
- OpenAL support
- Full suite of debugging, profiling and memory usage tools
- Need a previous version?

**Native SDK for Tablet OS**

For Windows (487 MB) 2.0

   a. **Note**: The link to the simulator is hard to spot, but it's right under the title “Download and Create” and appears greyed out until you click it.

---

**E. BlackBerry Runtime for Android Applications**

As a developer, you can use one of the following tools (*Eclipse Plug-in, Online Tool or Command Line Tool*) to not only repackage your application to BAR file format but also to check how compatible your application is for running on the BlackBerry Tablet OS. Some of the APIs in the Android SDK may not be supported, or only partially supported by the BlackBerry Runtime for Android apps. Before you begin using the tools, you must create a vendor account for BlackBerry App World. For more information on creating the vendor account, visit [https://appworld.blackberry.com/isvportal/home/login.seam](https://appworld.blackberry.com/isvportal/home/login.seam).


   a. **Note**: I highly recommend reading the above instructions. Before you can install and use the BlackBerry Plug-in for Android Development Tools, you must have installed and configured ADT plug-in for Eclipse rev12 or newer and Android SDK (SDK Platform Android 2.3.3, API 10) in Eclipse. You also need JDK 5 or JDK 6 (JRE alone is not sufficient) installed on your system. For more information, visit the [System requirements](http://developer.blackberry.com/android/documentation/system_requirements_1895476_11.html) section.

   
a. Note: If you’re using Mac get Eclipse IDE for Mac OS X (Cocoa 32)

   
a. Note: Download the file android-sdk_r15-windows.zip.

   
a. Note: Follow instructions provided by Android platform.

---

**BlackBerry Packager for Android apps Online tool**

A simple web interface that allows you to verify, repackage, and sign your app without any additional software downloads. Point the tool to the Android .apk file and the Android SDK on your computer, and the tool will do the rest, with just few mouse clicks from you.

1. **Click through the links to complete online:** [http://developer.blackberry.com/android/bpaa](http://developer.blackberry.com/android/bpaa)
**BlackBerry Packager for Android apps Command Line tool**

A set of command-line utilities which do everything the other tools do, just from the command line. The added benefit with this repackaging tool is that it allows you to verify, repackage, and sign multiple Android apps at a time.


6. **Install BlackBerry Tablet OS Simulator for Runtime for Android:**

   a. **Note:** Since the Android Runtime is not available until Tablet OS 2.0, you will need to download this simulator separate from the above simulator for WebWorks.
Now You’re Going to Need Some Tools to Test

Testing applications on the BlackBerry platform is amazing. You can use both emulators and simulators for both handhelds and tablet. RIM offers pretty much a simulator of each device they still support. The simulators are awesome since they allow you to simulate pretty much everything.

A. Simulators

Smartphones:  [http://us.blackberry.com/developers/resources/simulators.jsp](http://us.blackberry.com/developers/resources/simulators.jsp)

Since you can pretty much download almost any device RIM supports, it’s best to go to the site and download the one you’re looking for specifically. Note if you download some of the older devices, remember to keep in mind that some additional configurations may need to be made to the simulator to work. (e.g.: SD card, etc).

BlackBerry Smartphone Simulators

Use BlackBerry Smartphone Simulators to view and test how BlackBerry® Device Software and the screen, keyboard and trackpad/trackball/trackwheel will work with your application. With a BlackBerry Smartphone Simulator, you can run and debug applications as if they were on an actual BlackBerry smartphone.

- View BlackBerry Smartphone Simulator documentation

Download BlackBerry Smartphone Simulators


The link to the simulator is hard to spot, but it’s right under the title “Download and Create” and appears greyed out until you click it. Don’t forget that you will need VMPlayer in order to run the simulator. Link is provided below.

BlackBerry PlayBook Simulators

Use the BlackBerry® PlayBook™ Simulator to view, test and debug your application.

Download BlackBerry PlayBook Simulator v2.0 for:

- Windows® (exe)
- Mac (dmg)
- Linux® (bin)

Download BlackBerry PlayBook Simulator v1.0.8 for:

- Windows® (exe)
- Mac (dmg)
- Linux® (bin)
If you don’t have a BlackBerry PlayBook on hand, you can use the BlackBerry Tablet Simulator to test your application. The BlackBerry Tablet Simulator allows you to run your applications on your computer as you would on a BlackBerry PlayBook tablet.

1. **VM Player** - [https://www.vmware.com/tryvmware/?p=player&lp=1](https://www.vmware.com/tryvmware/?p=player&lp=1)

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**Runtime for Android:**

1. **BlackBerry Tablet OS Simulator for Runtime for Android:** [http://developer.blackberry.com/android/tool#simulator](http://developer.blackberry.com/android/tool#simulator)
B. Signing Keys

So in order to test your application on a physical device you are going to need signing keys. Signing keys are also used when packaging your application to be distributed, whether on App World or internally. There is no charge for signing keys and EVERY developer should apply for their own keys. Reason why I mention that is because when you load the keys, they get tied to a specific development environment (laptop, etc), and when you sign your application for release the same keys should be used each time. (Notice the red font) All I’m saying is have keys specific to production builds.

Register for Signing Keys - https://www.blackberry.com/SignedKeys/

Note: If you pre-register for signing keys, we will be able to show you how you compile and sign both Handheld and PlayBook applications using the tools above. The signing process takes approximately 2 business days (or less) 2 hours to receive your keys. Each attendee should register for his or her own keys as they are tied to each workstation+user. When registering, please ensure to select both “Handheld + PlayBook” so that you will receive both with a single registration.

BlackBerry Code Signing Keys Order Form

BlackBerry Code Signing Keys are now absolutely free! Learn more about code signing

Personal Information

- First Name: 
- Last Name: 
- Company: 
- Email: 
- Country: Select an option

Registration PIN

Your PIN can be any 6-10 digit, lowercase, alphanumeric code. Your PIN protects against usage of your Code Signing Keys by unauthorized parties, so keep it safe. RIM reserves the right to request that you choose another PIN if deemed unsuitable.

- PIN: 
  Your PIN will be required when registering your Code Signing Keys.
- Select a Key Select An Option
- I have read and agree to the RIM SDK License Agreement

Next
C. Signing Keys Installation - Smartphone

Since it only takes about an hour to get your signing keys, here is a quick snapshot on how to install them. You will need the BlackBerry WebWorks SDK to get up and running. Note: There is a different process for your Tablet. (see below)

Set up for signing smartphone apps

The BlackBerry WebWorks Packager includes the BlackBerry Signature Tool so that you can install a registration key and sign the .cod file of your BlackBerry WebWorks application.

Applications that you intend to run on a BlackBerry smartphone (rather than on a simulator) require signatures from the BlackBerry Signing Authority Tool. You must use the BlackBerry Signature Tool to request and receive signatures.

If you install a registration key before you install the BlackBerry WebWorks Packager, you should create an unsigned .cod file for an application and then sign the .cod file in the same way that you requested the registration key.

Install the new registry key with the BlackBerry Signature Tool


   After you complete the form, Research in Motion sends an email message containing a .csi file. The .csi file contains a list of signatures and your registration information.

2. At the command prompt, navigate to the bin folder within the installation folder for the BlackBerry WebWorks Packager installation directory.

3. Type the following command, including the full path of the .csi file:

   ```java -jar SignatureTool.jar <.csi file path>
   ```

4. If a dialog box appears that indicates that a private key cannot be found, perform the following actions:

   1. Click Yes.
   2. Type a password for the private key.
   3. Type the password to confirm it.
   4. Click OK.
   5. Move the mouse to generate random data for the new private key.

5. In the Registration PIN field, type the PIN that RIM provided.

6. In the Private Key Password field, type a password of at least eight characters. This is the private key password.

7. Click Register.

8. Click Exit.
D. Signing Keys Installation - Tablet

Since it only takes about an hour to get your signing keys, here is a quick snapshot on how to install them. You will need the BlackBerry WebWorks SDK to get up and running. Note: There is a different process for your smart phone. (see above)

**Set up for signing tablet apps**

If you want to test your application on a tablet without signing it, you can create and install a debug token on the tablet. For more information about debug tokens, see "Using debug tokens".

**Configure your computer to sign applications**

The following steps outlined in this section apply to first-time configuration for signing and for requesting debug tokens.

If you are upgrading the BlackBerry WebWorks SDK, perform the steps outlined in the *After an SDK upgrade* section.

1. Request permission to sign your tablet application by completing the web form at

   Remember the PIN number you provided.

2. After your application is accepted, you will receive two .csj registration files by email. Each file arrives in a separate email message with information about the purpose of the file attached. Save these files to a location on your computer.
   - `client-RDK-xxxxxx.csj` - This is the file that you use to sign your applications and publish to the BlackBerry App World storefront.
   - `client-PBDT-xxxxx.csj` - This file is used to generate a debug token that you can use to test your application on a tablet. PBDT stands for "PlayBook Debug Token".

   These files are used to install code signing keys. They can only be used once.
3. Register with the RIM Signing Authority using your .csj registration file for application signing. From the same
bbwpplblackberry-tablet-sdkbin folder located in the Blackberry WebWorks SDK installation folder, run the .bar
signing tool to enroll with the signing authority server:

```
blackberry-signer -register -csjpin <csj pin> 
    -storepass <KeystorePassword> <client-RDK-xxxxxx.csj file>
    <client-PBDT-xxxxxx.csj file>
```

where
- `<csj pin>` is the PIN you specified on the web form when you requested code signing keys
- `<KeystorePassword>` is a password that you specify for the keystore
- `<client-RDK-xxxxxx.csj file>` is the app signing .csj file sent by email after you registered
- `<client-PBDT-xxxxxx.csj file>` is the debug token .csj file sent by email after you registered

This command creates the following files: author.p12, barsigner.csk, and barsigner.db.

---

**Backing up your files**

The CSJ files that you used to install your code signing keys can only be used once. They are disabled after a
successful installation, which makes it important to back up your code signing keys after they have been installed.
Code signing keys can be restored to the original computer that they were installed to or restored to another
computer. You can also use this information to transfer your code signing keys to multiple computers and sign from
any of them.

The files that need to be backed up are: **author.p12**, **barsigner.csk** and **barsigner.db**. The barsigner files are located
in the directories outlined below. These are stored in a central location in the user's profile directory and used by all
BlackBerry Tablet OS development tools. Their location will vary based on the operating system you use. To restore
your code signing keys, copy the files back to the directory outlined below.

- **Windows XP**: `%HOMEPATH%\Local Settings\Application Data\Research In Motion
- **Windows Vista and Windows 7**: `%HOMEPATH%\AppData\Local\Research In Motion
- **Mac OS**: ~/Library/Research In Motion
- **UNIX or Linux**: ~/.rni

By default, `%HOMEPATH%` is `C:\Documents and Settings` on Windows XP and `C:\users` on Windows Vista
and Windows 7.
E. Interesting Topics to Consider

BlackBerry is a unified platform of tools and resources. We’re not just faucet heads, we have GOLD STANDARD plumbing connected to each device that can deliver game-changing applications.

Did you know that you don’t have to be a huge organization with hundreds of employees to take advantage of the BlackBerry platform? You can provide advanced BlackBerry smartphone business features with no software license fees or additional per user license fees!

BlackBerry Enterprise Server Express: http://us.blackberry.com/business/software/besx/

Like any time you’re going to be offering a product. You should know your audiences, know their habits and understand what and how they use applications. That’s why we offer:

BlackBerry Analytics Service: http://us.blackberry.com/developers/platform/analyticservice/

And it’s FREE!
Analytics Service

Measure and optimize your Java® based BlackBerry® smartphone apps

The free Analytics Service Powered by Webtrends helps you improve your end user experience, optimize your apps and know (not guess) where to invest your resources to increase your ROI.

With the reports and metrics available with the Analytics Service, you can find out if your app is being used the way it was designed to be used. You can also identify user behavior and segments to discover new business opportunities and measure how much your app is being used on different technology versions and in different locations.

The Analytics Service includes everything you need to get started with analytics: an SDK, developer documents and a web-based reporting interface.

The Analytics Service requires BlackBerry® Device Software v4.5 or higher.

› Download the Analytics Service v1.0 SDK (Updated Oct 11, 2011)
› Learn More
So if this is your first rodeo in mobility, then here are a few links that should be considered.

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<tr>
<td><strong>BlackBerry (Open Source Projects)</strong></td>
<td><a href="https://github.com/blackberry">https://github.com/blackberry</a></td>
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