

**MOBILE SOFTWARE PLATFORM COMPARISON WORKSHEET**

**DEVELOPMENT ENVIRONMENT**

Mobile Software Platform	Android	Blackberry	iPhone	Symbian	Windows Mobile 6 Classic	Windows Mobile 6 Standard	Windows Mobile 6 Pro	Palm webOS	Palm OS	Access Linux Platform (ALP)	Openmoko Linux	Qtopia (Linux)	Maemo Linux	Brew	LiMo Linux	Java	web apps	
other names		RIM			Windows Mobile 5 Pocket PC	Windows Mobile 5 Smartphone	Windows Mobile 5 Pocket PC Phone Edition		Garnet			Trolltech platform				Java2 Micro Edition (J2ME)		
comments				main UI platforms: UIQ, s60, Nokia series 80	touchscreen, no phone	no touchscreen, phone	touchscreen, phone	PalmOS apps can be run via emulator, Classic, by MotionApps	obsolete by webOS, no new devices, but many legacy devices still in use	contains Garnet Emulator (runs Palm OS legacy apps)			Debian-based	Qualcomm phones only		not native	requires browser to support javascript, html, css	
Company	Google	RIM	Apple	various, but Nokia owns majority stake	Microsoft			Palm Inc.	ACCESS (but licensed by Palm Inc.)	ACCESS	FIC	Trolltech		Qualcomm	LiMo	Sun		
Framework	Android		Cocoa	Symbian	.NET framework (optional) gives access to libraries and allows for "managed code" using C#/VB			Mojo	n/a	ALP				Hildon				
Operating System	Linux	Blackberry	iPhone OS	Symbian OS	Windows Mobile 6 Classic	Windows Mobile 6 Standard	Windows Mobile 6 Pro	webOS	Palm OS (aka Garnet)	Linux	Linux	Linux	Linux			Cross-Platform		
Most Common Programming Language	Java, some C++ library support	Java based	Objective C, can use C/C++ behind the scenes	C++ or Java (other options available)	C++ (using all tools/IDE) and/or C#/VB (requires Visual Studio 2005 or 2008)			html/css/ javascript SQLite db	C/C++ (other options available)	C/C++	C/C++	C/C++ or Java					Java	various, final product usually javascript/html/css
Integrated Development Environment (IDE)	Eclipse plugin	Blackberry JDE, plugins for Visual Studio and Eclipse, all free	XCode (included in free SDK)	Nokia Carbide C++ (Eclipse-based) Express (free—non-commercial dev), Dev Edition (some cost?), \$1299Pro, or GCC for Symbian, and some free (unsupported) tools available	Visual Tools v4 (free), Visual Studio 2005 Standard (some cost), Visual Studio Pro (~\$700), also some free open source IDE's available			Eclipse, or any IDE that allows for external tools	CodeWarrior, GCC								Eclipse	various
run natively?	yes	no, requires Blackberry JVM	yes	yes, except Java	yes			yes	yes, except Java			yes, except Java					requires runtime machine	no, runs via browser
desktop environment	Win/Mac/ Linux	Win/Linux?	Mac	Win for Carbide IDE, GCC more flexible	Win/Mac/ Linux (depends on tools selected)			Win/Mac(OSX)/ Linux	Win/Mac/ Linux								Win/Mac/ Linux	any
signing required?	no	sometimes	yes	no (Open), but restrictions apply and warnings given to users	no, but some restrictions and warnings given to users			no?	no								yes	no
cost to sign?	n/a	\$100 for keys	\$99/year (no test costs)	\$20 each (Express) or \$200/year + test costs (Certified)	yes			free	test cost/device to be designated "Designed for Palm Products"								yes	no
benefits of signing	n/a	can sell on Blackberry World	can sell in Apple AppStore	company registration fees are 200-2000 Euros/year	no warnings given to users, access to certain networks, users do not have to configure their devices to allow for unsigned app installation			can sell in AppCatalog	additional promotion via Palm.com									n/a
SDK cost?	free	free	free	free	free	free	free	free	free					free		free	free	most free
link for info	<a href="http://developer.android.com/index.html">http://developer.android.com/index.html</a>	<a href="http://na.blackberry.com/eng/developers">http://na.blackberry.com/eng/developers</a>	<a href="http://developer.apple.com/">http://developer.apple.com/</a>	<a href="http://www.nokia.com">http://www.nokia.com</a>	<a href="http://developer.windowsmobile.com/">http://developer.windowsmobile.com/</a>			<a href="http://developer.palm.com/">http://developer.palm.com/</a>										

**MARKETING ENVIRONMENT**

Mobile Software Platform	Android	Blackberry	iPhone	Symbian	Windows Mobile 6 Classic	Windows Mobile 6 Standard	Windows Mobile 6 Pro	Palm webOS	Palm OS	Access Linux Platform (ALP)	Openmoko Linux	Qtopia (Linux)	Maemo Linux	Brew	LiMo Linux	Java	web apps
must sign to sell?	no	yes, for some stores	yes	no, but restrictions apply	no			no	no					yes			no
fee to sign? or registration required?	no	yes, one-time \$100 signing fee	\$99/yr.	\$20 each (Express) or \$200/year + test costs (Certified), plus company registration fees	yes, \$99/app for certification for Windows Marketplace (updates free)			only for submission to the AppCatalog	no, but DFPP fee for Palm SWC (web store)					yes			no
Promotional or advertising costs?	optional, but improves sales	optional, but improves sales	yes, but not within App Store	optional, but improves sales	optional, but improves sales			optional, but improves sales	optional, but improves sales								
trials allowed?	yes	yes	no	?	yes			yes	yes								
On-device App Store	Android Market	AppWorld	AppStore	Nokia Ovi	Windows Marketplace			AppCatalog	Addit, MyCentro, MyTreeo								n/a
On-device store commissions	30%, powered by Google Checkout	20%, powered by Digital River, payments paid via PayPal, extra 3% fee	30%	30%, but could be more if billed by operator.	30%			30%+3%PayPal payment fee	~70%								
On-device store submission selling fees	yes, one-time \$25 registration fee to sell on Android Market	yes, registration fee \$200/10 app submissions on Blackberry World (including updates and resubmissions after rejection)*	no additional fees after signing/registration fee (see above)	yes, 50 Euros to register to sell, plus 20+Euros/app and 20+Euros/app per update, plus company registration fees	\$99/year plus \$99/app (signing) for Windows Marketplace store			\$99/yr	no					must be signed			no
Approximate # of apps on on-device store	2300	1430	85000	2800, varies by device	not yet open, 18,000 app base			80	250 (on-device, 32000 overall)								
Main Off-device Distribution Channels	Handango, PocketGear, Mobihand, carriers	Handango, PocketGear, Mobihand, carriers	ONLY distribution via Apple AppStore (except for jailbroken phones)	Handango, PocketGear, Mobihand, carriers	Handango, PocketGear, Mobihand, carriers			Handango, PocketGear, Mobihand, carriers	Handango, PocketGear, Mobihand, carriers								visit website where runs
commissions on other channels	20% to 70%+	20% to 70%+	n/a	20% to 70%+	20% to 70%+			20% to 70%+	20% to 70%+								credit card processing fees on your website
other distribution fees?	with some distributors	with some distributors	none	with some distributors	with some distributors			with some distributors	with some distributors								
Company software portal powered by?	Android Market	AppWorld	Apple App Store	Nokia Ovi	Handango, Mobihand, and Pocketland for now			App Catalog	PocketGear	storefront closed							n/a

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### MARKET INFO

Mobile Software Platform	Android	Blackberry	iPhone	Symbian	Windows Mobile 6 Classic	Windows Mobile 6 Standard	Windows Mobile 6 Pro	Palm webOS	Palm OS	Access Linux Platform (ALP)	Openmoko Linux	Qtopia (Linux)	Maemo Linux	Brew	LIMO Linux	Java	web apps	
<b>user base (as of 8/09)</b>	1 million as of April 09	28.5 million Blackberry subscribers worldwide	45 million iPhone and iPod Touch	61 million	30 million phones, plus PDA's			500,000 (est)										
<b>Market size</b>	increasing, est 900%? increase with new phones in 2010	healthy	very large	very large	30 new Windows Mobile phones due out soon			small, but increasing	shrinking	no device released?								
<b># devices using</b>	more pending, about 18 by end of 2009	multiple	iPhone original, iPhone 3G, iPhone 3Gs, iPod Touch (3 generations)	UIQ (13), s60 (31), series80(2)	30 new Windows Mobile phones due out soon			1-2	various			3	45	3			any who can install the runtime machine	all can use if browser supports javascript/ html/css
<b>example of device(s)</b>	G1	Blackberry devices: Bold, Storm, Pearl, Curve, 8800 Series	iPhone- various versions, iPod touch		several brands of phone and PDA			Pre, Pixi is pending	Treo, Centro, TX PDA, Palm PDA's		Neo(2), Dash Express	Sharp Zaurus	Nokia 770 Internet Tablet	Qualcomm phones				n/a

\* ref FAQ's: <http://na.blackberry.com/eng/developers/appworld/faq.jsp>  
 Blackberry signing: <http://blog.crowe.co.nz/archive/2007/07/11/BlackBerry-Code-Signing-101.aspx>

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