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UNITED STATES DEPARTMENT OF COMMERCE

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November 21, 2001

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APPLICATION NUMBER: 60/235,354 FILING DATE: September 26, 2000

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COMPLIANCE WITH RULE 17.1(a) OR (b)

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PTO/SB/16 (2-98)

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### PROVISIONAL APPLICATION FOR PATENT COVER SHEET This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53 (c).

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		INV	/ENTOR(S)					
Given Name (first and middle [if any]) Family Name or St			Sumame	Residence (City and either State or Foreign Country)				
Michael Brown			7 Danube Drive Heidelberg, Ontario NO CANADA			NOB	140	
X Additional inventors are being named on the 1 separately numbered sheets attached hereto								
TITLE OF THE INVENTION (280 characters max)								
		ODE SIGNING						
Direct all correspondence to:  Customer Number  Type Customer Number here			DDRESS	Place Customer Number Bar Code Label here				
Firm <i>or</i> X Individual Name	Name David B. Cochran, Esq.							
Address	Jones, Day, Reavis & Pogue							
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City	Cleveland State			OH ZIP 44114 216/586-3939 Fax 216/579-0212				
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ENCLOSED APPLICATION PARTS (check all that apply)								
X Specification Number of Pages 8 Small Entity Statement  Drawing(s) Number of Sheets 5 Other (specify)								
METHOD OF PAYMEN	NT OF F	ILING FEES FOR T	HIS PROVIS	IONAL APPI	LICATION FOR	PATENT	(check	one)
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David B. Cochran (If appropriate)								
TYPED or PRINTED NAME Docket Number: 55325012178								

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(216/586-3939)

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Title: Code Signing System and Method

Inventor(s): Michael Brown, Herb Little, David Yach

5 Assignee: Research In Motion Limited

### BACKGROUND OF THE INVENTION

### 10 Field of the Invention

This invention relates to security protocols with Java programs. Specifically this invention relates to assigning a digital signature to a Java program in order to use it on a mobile communications device (herein collectively called devices).

### Description of the Prior Art

When a Java application arrives on a device such as the RIM Wireless Handheld 957<sup>TM</sup>, there is a need to control the access that the application has. For example, if a product is to be exported, access to strong cryptographic routines must be restricted. Interfaces to a radio transmitter may be protected so that destructive applications are unable to flood the wireless network with data; similarly, interfaces to a database or file system may be protected so that destructive applications are unable to fill a device's storage space with unwanted data.

### **SUMMARY OF THE INVENTION**

It is an object of the invention is to provide an improved coding signing system and method.

It is an object of the invention to oversee the management and execution of

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Java applications arriving to the device;

It is an object of the invention to verify that any application has been digitally signed as having permission to carry out its intended function;

It is an object of the invention to prevent unacceptable applications from gaining access strong cryptographic routines and any other application programming interface (API) designated by its author as "sensitive";

In the present invention, digital signatures are used to control access to sensitive APIs, thereby allowing access to only those applications that have been digitally signed by the author of a sensitive API.

In the invention, a Java application, which will access an API, is developed to run on a device. In order to run on the device and access the sensitive API, the author of the API must approve the application by attaching a digital signature using the author's private key. Whenever the application on the device is executed the signed application will be verified. The author of any API may decide that the API should not be exposed to every application on the device, but only to those that have been verified to be non-destructive, or for which some business arrangement pre-exists, for example.

Further features of the invention will be described or will become apparent in the course of the following detailed description.

### 20 BRIEF DESCRIPTION OF THE DRAWINGS

In order that the invention may be more clearly understood, at least one embodiment thereof will now be described in detail by way of example, with reference to



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