

THER UNIVERSITY OF WIRE CAN

<u>TO AM, TO WHOM THESE; PRESENTS SHAM, COME;</u>

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

November 27, 2001

THIS IS TO CERTIFY THAT ANNEXED HERETO IS A TRUE COPY FROM THE RECORDS OF THE UNITED STATES PATENT AND TRADEMARK OFFICE OF THOSE PAPERS OF THE BELOW IDENTIFIED PATENT APPLICATION THAT MET THE REQUIREMENTS TO BE GRANTED A FILING DATE UNDER 35 USC 111.

APPLICATION NUMBER: 60/270,663 FILING DATE: February 20, 2001

PRIORITY DOCUMENT

SUBMITTED OR TRANSMITTED IN COMPLIANCE WITH RULE 17.1(a) OR (b)

By Authority of the

COMMISSIONER OF PATENTS AND TRADEMARKS

N. WOODSON

Certifying Officer



02-21-01

APROV

PTO/SB/16 (8-00)

Approved for use through 10/31/2002. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Office of the property of

Residence (City and either State or Foreign Country Michael Brown P.O. Box 216, 7 Danube Drive Heidelberg, Ontario NOB 1YO CANADA Residence (City and either State or Foreign Country) Residence P.O. Box 216, 7 Danube Drive Heidelberg, Ontario NOB 1YO	11002 U S.
Brown P.O. Box 216, 7 Danube Drive Heidelberg, Ontario NOB 1YO CANADA	~ ~ ~
TITLE OF THE INVENTION (280 characters max) CODE SIGNING SYSTEM AND METHOD Direct all correspondence to: CORRESPONDENCE ADDRESS Place Customer Number Bar Code Label here X Firm or Individual Name David B. Cochran, Esq. Address Jones, Day, Reavis & Pogue Address North Point, 901 Lakeside Avenue City Cleveland State OH ZIP 44114 Country US Telephone 216/586-3939 Fax 216/579-0212 ENCLOSED APPLICATION PARTS (check all that apply) X Specification Number of Pages 17 X STRICK MANDAREX Assignment Power of Attorne	
TITLE OF THE INVENTION (280 characters max) CODE SIGNING SYSTEM AND METHOD CODE SIGNING SYSTEM AND METHOD CORRESPONDENCE ADDRESS Place Customer Number Bar Code Label here X Firm or Individual Name Address Address Address North Point, 901 Lakeside Avenue City Cleveland State OH ZIP 44114 Country US Telephone 216/586-3939 Fax 216/579-0212 ENCLOSED APPLICATION PARTS (check all that apply) X Specification Number of Pages 17 X STR(SE): Manualex Power of Attorne Provisional Appl	
CODE SIGNING SYSTEM AND METHOD Direct all correspondence to: CORRESPONDENCE ADDRESS Customer Number Customer Number David B. Cochran, Esq. Individual Name Address Jones, Day, Reavis & Pogue Address North Point, 901 Lakeside Avenue City Cleveland State OH ZIP 44114 Country US Telephone 216/586-3939 Fax 216/579-0212 ENCLOSED APPLICATION PARTS (check all that apply) X Specification Number of Pages 17 X SD(x)x Numbers Power of Attorne Provisional Appl	
Customer Number Customer Number Customer Number Customer Number here X	
Customer Number OR Type Customer Number here X Firm or Individual Name David B. Cochran, Esq.	
David B. Cochran, Esq.	
Address Jones, Day, Reavis & Pogue Address North Point, 901 Lakeside Avenue City Cleveland State OH ZIP 44114 Country US Telephone 216/586-3939 Fax 216/579-0212 ENCLOSED APPLICATION PARTS (check all that apply) X Specification Number of Pages 17 X XXX(x)x Mumbers X Drawing(s) Number of Sheets 8 X Other (specify) Provisional Appl	
Address North Point, 901 Lakeside Avenue City Cleveland State OH ZIP 44114 Country US Telephone 216/586-3939 Fax 216/579-0212 ENCLOSED APPLICATION PARTS (check all that apply) X Specification Number of Pages 17 X SEC(E); Number of Attorne X Drawing(s) Number of Sheets 8 X Other (specify) Provisional Appl	
North Point, 901 Lakeside Avenue	
City Cleveland State OH ZIP 44114 Country US Telephone 216/586-3939 Fax 216/579-0212 ENCLOSED APPLICATION PARTS (check all that apply) X Specification Number of Pages 17 X SD(x): Number of Sheets 8 X Other (specify) Provisional Appl	
ENCLOSED APPLICATION PARTS (check all that apply) X Specification Number of Pages 17 X SED(x); Number Assignment X Drawing(s) Number of Sheets 8 X Other (specify) Provisional Appl	
X Specification Number of Pages 17 X Strict Number Assignment X Drawing(s) Number of Sheets 8 X Other (specify) Provisional Appl	
X Drawing(s) Number of Sheets 8 X Other (specify)	
X Other (specify) Provisional Appl	
Application Data Sheet. See 37 CFR 1.76	<u>n. </u>
METHOD OF PAYMENT OF FILING FEES FOR THIS PROVISIONAL APPLICATION FOR PATENT	
Applicant claims small entity status. See 37 CFR 1.27. FILING FEE AMOUNT (\$)	
A check or money order is enclosed to cover the filling fees	
The Commissioner is hereby authorized to charge filing \$190.00 \$190.00	
fees or credit any overpayment to Deposit Account Number: Payment by credit card. Form PTO-2038 is attached. Ref: 555255012198	
The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.	
Yes, the name of the U.S. Government agency and the Government contract number are:	
Respectfully submitted, Date 2/9/01	

USE ONLY FOR FILING A PROVISIONAL APPLICATION FOR PATENT

This collection of information is required by 37 CFR 1.51. The information is used by the public to file (and by the PTO to process) a provisional application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 8 hours to complete, including gathering, preparing, and submitting the complete provisional application to the PTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Box Provisional Application, Assistant Commissioner for Patents, Washington, D.C. 20231.



H." H." . .

PROVISIONAL APPLICATION COVER SHEET Additional Page

PTO/SB/16 (8-00)
Approved for use through 10/31/2002. OMB 0651-0032
U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

555255012198 Docket Number INVENTOR(S)/APPLICANT(S) Residence (City and either State or Foreign Country) Family or Surname Given Name (first and middle [if any]) 523A Rosemeadow Crescent Little Herb Waterloo, Ontario N2T 1Z9 CANADA Yach 254 Castlefield Ave. David Waterloo, Ontario N2K 2N1 CANADA

Number $\underline{1}$ of $\underline{1}$

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.



and the first for the first first seed

Į,

25

Title:

Code Signing System and Method

Inventor(s):

Michael Brown, Herb Little, David Yach

5 Assignee:

Research In Motion Limited

BACKGROUND OF THE INVENTION

Field of the Invention

This invention relates to security protocols with dynamic library linking programs such as Java[™] programs. Specifically, this invention relates to assigning a digital signature to a program in order to use it on a mobile communications device.

Description of the Prior Art

When an application program arrives at a mobile communications device such as the RIM Wireless Handheld 957™ or a multiple mode device incorporating both data and voice communications features, there is a need to control the access that the application has. For example, if such a device is to be exported, access to any strong cryptographic routines residing on the device must be restricted. Interfaces to a radio transmitter may be protected so that destructive applications are unable to flood a wireless network with transmission signals; 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 or alter existing data.

One scheme for protecting interfaces involves application software signing, commonly called code signing. In conventional code signing schemes, an application



20

program developer or author generates a signature indicating the identity of the author and appends the signature to the application. Upon the arrival of a signed application at a device such as described above, the signature is used to authenticate the author of the application. If the author is a trusted source, the application may be loaded and executed on the device.

Most known code signing schemes grant access to device or system resources for an application program based on authentication of the author of the application. However, there remains a need for a code signing scheme which provides for more selective resource access restriction, based on the particular application instead of solely upon author authentication.

SUMMARY OF THE INVENTION

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

It is a related object of the invention to oversee the management and execution of Java and other dynamic library link-based applications arriving at a mobile communications device.

It is a further object of the invention to verify that any application has been digitally signed as having permission to carry out its intended functions.

A still further object of the invention is to prevent unacceptable applications from gaining access strong cryptographic routines and any other application programming interface (API) designated by the API author as "sensitive".

In the present invention, digital signatures are used to control access to

DOCKET

Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time** alerts and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.

