



US006571389B1

(12) **United States Patent**
Spyker et al.

(10) **Patent No.:** **US 6,571,389 B1**
(45) **Date of Patent:** **May 27, 2003**

(54) **SYSTEM AND METHOD FOR IMPROVING THE MANAGEABILITY AND USABILITY OF A JAVA ENVIRONMENT**

(75) Inventors: **Andrew W. Spyker**, Raleigh, NC (US);
Matthew David Walnock, Cary, NC (US)

(73) Assignee: **International Business Machines Corporation**, Armonk, NY (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/300,041**

(22) Filed: **Apr. 27, 1999**

(51) Int. Cl.⁷ **G06F 9/44**

(52) U.S. Cl. **717/176; 717/176; 709/106; 709/242**

(58) Field of Search **711/11; 709/204, 709/106, 242; 717/168-178**

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,732,275	A	*	3/1998	Kullick et al.	717/11
5,752,042	A	*	5/1998	Cole et al.	717/176
5,764,992	A	*	6/1998	Kullick et al.	717/11
5,966,540	A	*	10/1999	Lister et al.	717/178
5,983,348	A	*	11/1999	Ji	713/200
5,995,756	A	*	11/1999	Herrmann	395/712
6,009,274	A	*	12/1999	Fletcher et al.	395/712

6,353,926	B1	*	3/2002	Parthesarathy et al.	717/168
6,357,019	B1	*	3/2002	Blaisdell et al.	714/38
6,381,742	B2	*	4/2002	Forbes et al.	717/178

* cited by examiner

Primary Examiner—Gregory Morse

Assistant Examiner—Chuck Kendall

(74) *Attorney, Agent, or Firm*—Jeanine S. Ray-Yarletts;
Marcia L. Doubet

(57) **ABSTRACT**

A method, system, and computer-readable code for improving the manageability and usability of a Java environment. The advantages of applets and applications are combined, while avoiding particular disadvantages of both, resulting in a technique whereby all Java programs are executed without relying on use of a browser to provide a run-time environment. Techniques for improving the packaging of Java components, including run-time environments and extensions as well as applications, are defined. Dependencies are specified in a manner which enables them to be dynamically located and installed, and enables sharing dependent modules (including run-time environments) among applications. The dependency specification technique ensures that all dependent code will be automatically available at run-time, without requiring a user to perform manual installation. The run-time environment required for an application is specified, and a technique is provided for dynamically changing the run-time that will be used (including the ability to change run-times on a per-program basis), without requiring user intervention.

33 Claims, 11 Drawing Sheets

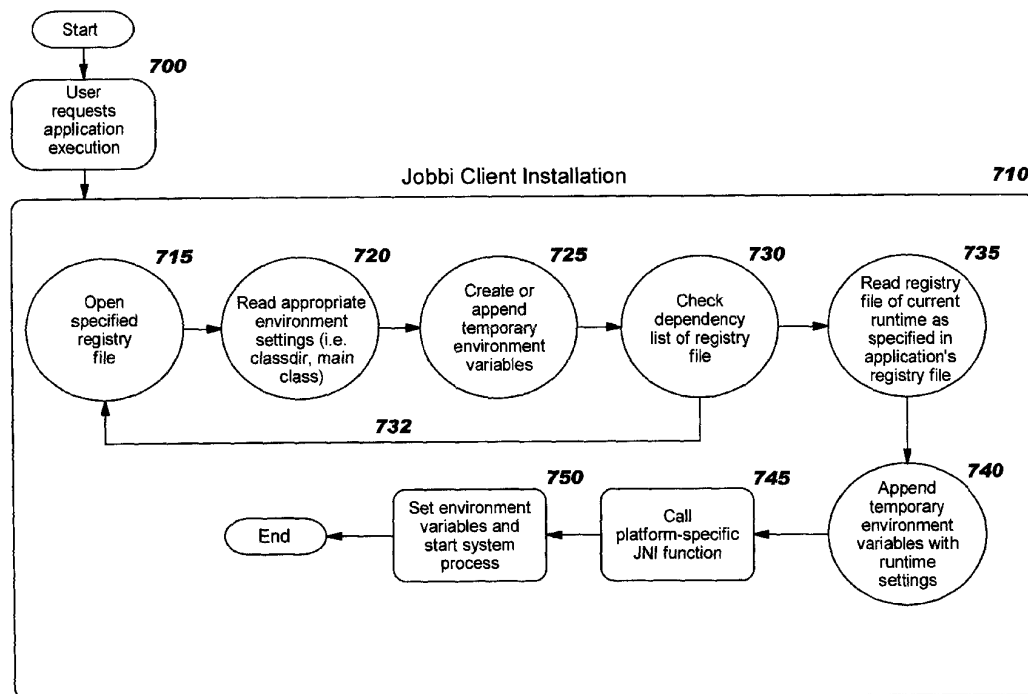


FIG. 1

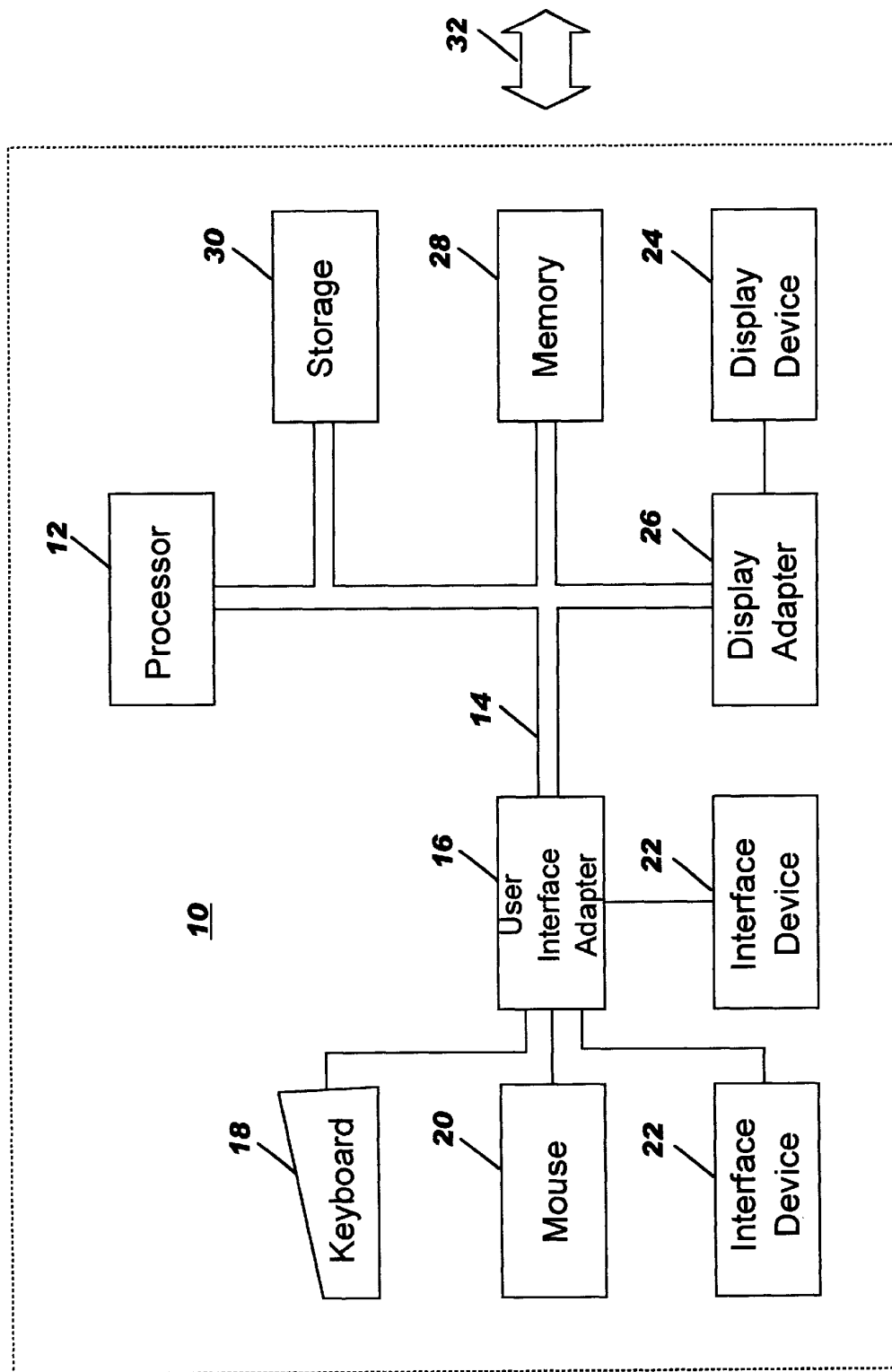


FIG. 2
(Prior Art)

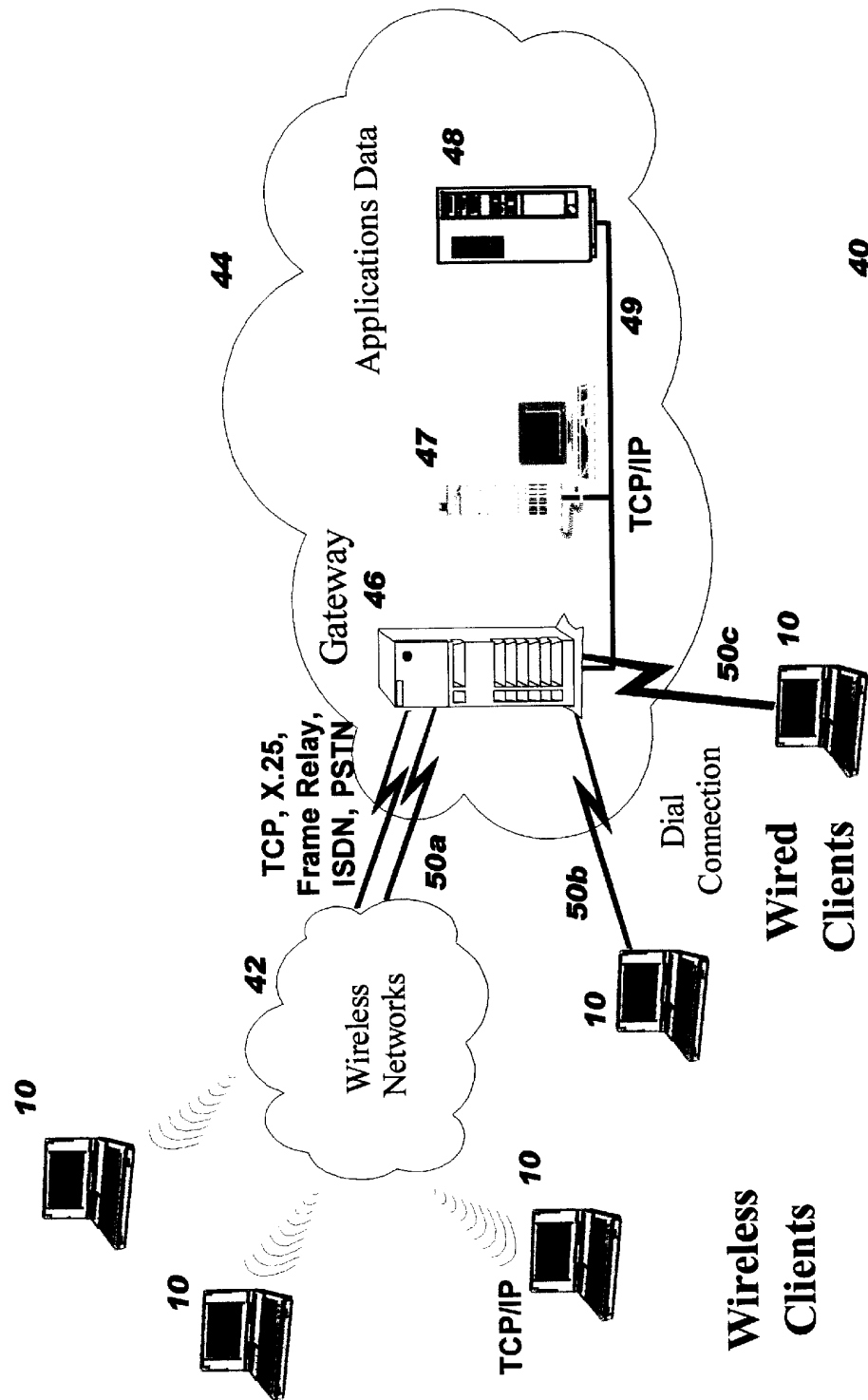


FIG. 3

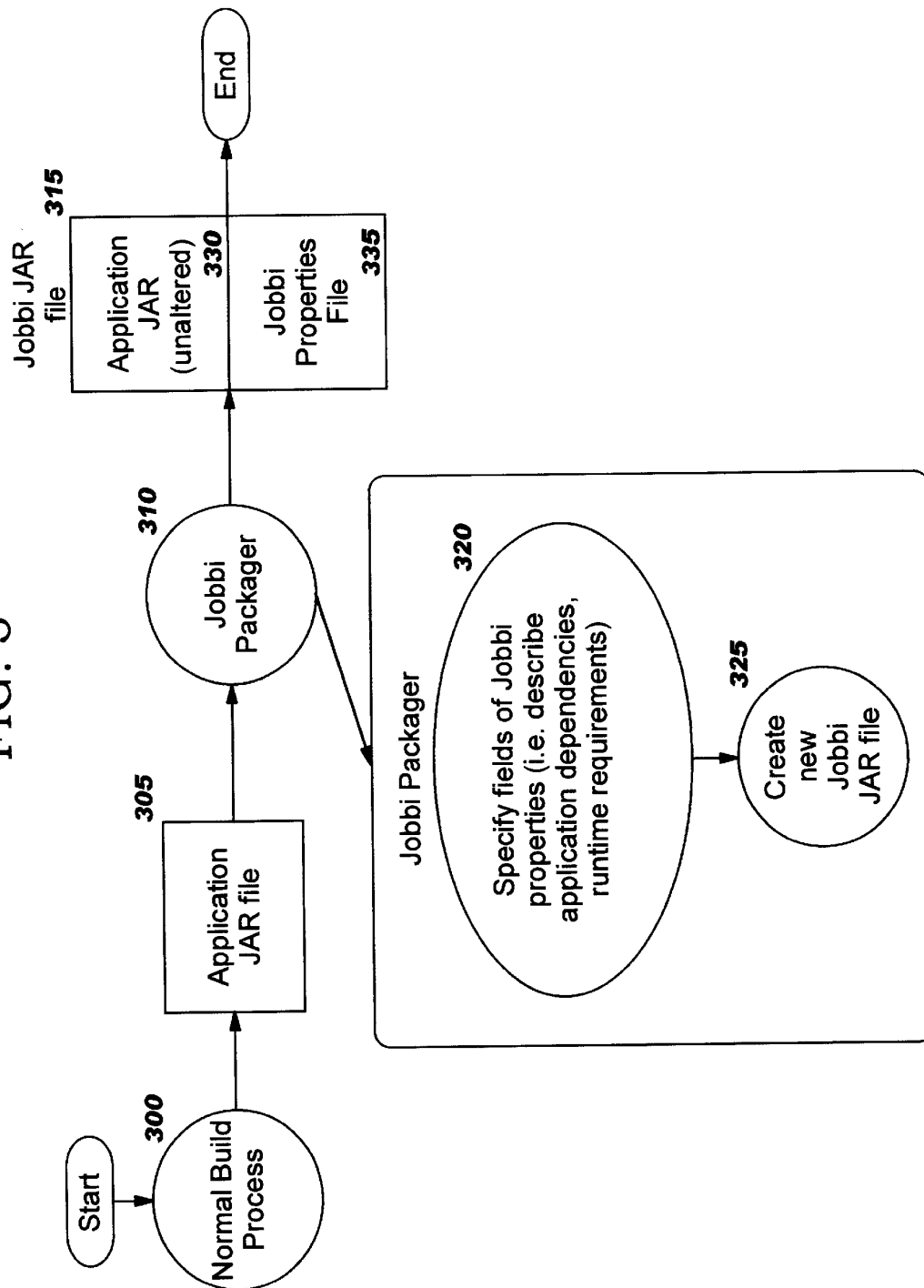


FIG. 4A

400

405 Property Key - displayname
Displayname

408 Property Key - displayicon
Display icon

410 Property Key - version
Comma separated list in form of Major.Minor.Rev.Build version information

415 Property Key - jobbitype
Either application, runtime, or extension
application - Can be added to the jobbi desktop
runtime - Can be added to the list of runtimes
extension - Can be added to the list of extensions

420 Property Key - jobbilocationtype
Either URL | file | jobbi-lookup-server
URL - the jobbi archive is located at the URL specified in jobbilocation
file - the jobbi archive is contained in a file name specified in jobbilocation
jobbi-lookup-server - goes to the jobbi-server and looks up the location information

425 Property Key - jobbilocation
Either a URL, filename, prompt, or '.'
URL - URL pointing to jobbi archive
filename - presents the user with a file chooser box specifying the name of the jobbi archive
428 prompt - presents the user with a dialog that either lets the user put in a URL or filename
'.' - use of this syntax indicates that the jobbi archive is contained within the current archive

430 Property Key - nativecode
Either true or false
true - jobbi archive contains native code
false - jobbi archive does not contain native code

435 Property Key - nativecodeplatform
One of the strings of the jobbi supported platforms
Empty if nativecode is false

440 Property Key - dependencies
Comma separated list of UID's that this package depends on
Empty if there are no dependencies for this jobbi package

445 Property Key - main
Java class name of class containing the main() function. This field is only specified if
jobbitype = application

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.