

[0065] Aspects of the invention can be implemented in digital electronic circuitry, or in computer hardware, firmware, software, or in combinations of them. Apparatus of the invention can be implemented in a computer program product tangibly embodied in a machine-readable storage device or data carrier for execution by a programmable processor; and method steps of the invention can be performed by a programmable processor executing a program of instructions to perform functions of the invention by operating on input data and generating output.

[0066] The invention can be implemented advantageously in one or more computer programs that are executable on a programmable system including at least one programmable processor coupled to receive data and instructions from, and to transmit data and instructions to, a data storage system, at least one input device, and at least one output device. Each computer program can be implemented in a high-level procedural or object-oriented programming language, or in assembly or machine language if desired; and in any case, the language can be a compiled or interpreted language. Suitable processors include, by way of example, both general and special purpose microprocessors. Generally, a processor will receive instructions and data from a read-only memory and/or a random access memory.

[0067] The essential elements of a computer are a processor for executing instructions and a memory. Generally, a computer will include one or more mass storage devices for storing data files; such devices include magnetic disks, such as internal hard disks and removable disks; magneto-optical disks; and optical disks. Carriers suitable for tangibly embodying computer program instructions and data include all forms of carrier signals, including by way of example electromagnetic signals, electrical signals, and digital data signals transmitted in a digital communication network, and all forms of non-volatile memory, including by way of example semiconductor memory devices, such as EPROM, EEPROM, and flash memory devices; magnetic disks such as internal hard disks and removable disks; magneto-optical disks; and CD-ROM disks. Any of the foregoing kinds of memory can be supplemented by, or incorporated in, ASICs (application-specific integrated circuits).

[0068] To provide for interaction with a user, the invention can be implemented on a computer system having a display device such as a CRT or LCD screen for displaying information to the user and a keyboard and a pointing device such as a mouse or a trackball by which the user can provide input to the computer system. The computer system can be programmed to provide a graphical user interface through which computer programs interact with users.

[0069] The invention has been described in terms of particular embodiments. Other embodiments are within the scope of the following claims. For example, steps of the invention can be performed in a different order and still achieve desirable results.

What is claimed is:

1. A computer program product, tangibly embodied on a carrier medium, for deploying software to a computer, the product comprising instructions operable to cause a processor to:

receive in a computer system in which software is to be deployed a software delivery archive containing the software, the software delivery archive further containing a manifest describing the software, the manifest

including a software type, the archive further containing a deployment descriptor; and

perform the deployment to the computer system according to the software type and the deployment descriptor.

2. The product of claim 1, further comprising instructions to:

determine a target server type for the deployment; and

perform the deployment also according to the target server type.

3. The product of claims 1 or 2, further comprising instructions to:

receive a software delivery archive having a manifest indicating a software type of database content;

deploy the database content to a database on the computer system;

receive a software delivery archive having a manifest indicating a software type of J2EE application; and

deploy the J2EE application to a J2EE server on the computer system.

4. The product of claims 1 or 2, further comprising instructions to:

receive a software delivery archive having a manifest indicating a software type of file system content;

deploy the file system content including a file to a file system on the computer system;

receive a software delivery archive having a manifest indicating a software type of J2EE application; and

deploy the J2EE application to a J2EE server on the computer system.

5. The product of claims 1 or 2, wherein the manifest comprises a standard JAR manifest and a supplementary manifest that includes the software type.

6. A method for deploying software onto a computer, comprising:

receiving in a computer system in which software is to be deployed a software delivery archive containing the software to be deployed, the software delivery archive further containing a manifest describing the software, the manifest including a software type, the archive further containing a deployment descriptor; and

performing the deployment to the computer system according to the software type and the deployment descriptor.

7. The method of claim 5, further comprising:

determining a target server type for the deployment; and performing the deployment also according to the target server type.

8. The method of claims 5 or 6, further comprising:

receiving a software delivery archive having a manifest indicating a software type of database content; and