service package includes one or more files associated with a selected component. The service package further includes a plurality of instruction sets for installing the files. The method includes determining the state associated with the selected component. The method also includes selecting one of the instruction sets based on the determined state. The method also includes applying one or more of the files to the selected component in accordance with the selected instruction set.

[0013] In accordance with yet another aspect of the invention, one or more computer-readable media have computer-executable modules for updating a software product with a service package. The software product includes a plurality of components. Each of the components has a state associated therewith. The state represents an operating context of the component. The service package includes one or more files associated with a selected component. The service package further includes a plurality of instruction sets for installing the files. The modules include a configuration module that determines the state associated with the selected component and selects one of the instruction sets based on the determined state. The modules also include an installation module that modifies the selected component by applying one or more of the files to the selected component in accordance with the instruction set selected by the configuration module.

[0014] In accordance with still another aspect of the invention, a method creates a service package for a software product. The software product includes a component that has one of a plurality of lifecycle phases associated therewith. The method includes selecting one or more files for association with the software product. The method also includes storing the selected files on a computer-readable medium. The method also includes storing a plurality of installation scripts on the computer-readable medium. Each of the installation scripts corresponds to one of the lifecycle phases. The installation scripts are executed based on the lifecycle phase of the component to apply the stored, selected files to the software product.

[0015] In accordance with yet another aspect of the invention, a service package updates a software product stored on a computer-readable medium. The software product includes a component that has one of a plurality of lifecycle phases associated therewith. The service package includes one or more files for association with the component. The service package also includes a plurality of instruction sets that correspond to the plurality of lifecycle phases of the component. One of the plurality of instruction sets is selected and executed responsive to the lifecycle phase associated with the component to apply the files to the component.

[0016] Alternatively, the invention may comprise various other methods and apparatuses.

[0017] Other features will be in part apparent and in part pointed out hereinafter.

BRIEF DESCRIPTION OF THE DRAWINGS

[0018] **FIG. 1** is a block diagram illustrating an exemplary service package being applied to a software product stored on a computing device.

[0019] **FIG. 2** is an exemplary block diagram illustrating a computing device having a componentized operating system.

[0020] **FIG. 3** is an exemplary block diagram illustrating application of an update to a component in the componentized operating system of **FIG. 1**.

[0021] **FIG. 4** is an exemplary flow chart illustrating operation of a component installer application program.

[0022] **FIG. 5** is an exemplary flow chart illustrating creation of a service package.

[0023] **FIG. 6** is a block diagram illustrating one example of a suitable computing system environment in which the invention may be implemented.

[0024] Corresponding reference characters indicate corresponding parts throughout the drawings.

DETAILED DESCRIPTION OF THE INVENTION

[0025] Referring first to **FIG. 1, a** block diagram illustrates an exemplary service package **104** applied to a component-based software product **106** having one or more components **108** such as component #1 through component #X stored on a computing device **102**. In an embodiment, the invention includes software executing on the computing device **102** to update the software product **106** (e.g., an operating system or an application program). Each component **108** in the software product **106** includes at least one file such as a binary file and has a manifest or other information describing the component **108** associated therewith. The invention uses the component-based definition of the software product **106** to provide a single method for updating the components **108**. That is, the invention provides a component installer that applies or otherwise installs all binary files **110** such as binary file #1 through binary file #Y in the service package **104**.

[0026] The service package **104** also includes a plurality of instruction sets **112** (e.g., including a declarative description of installation steps) such as instruction set #1 through instruction set #Z specifying the proper installation of the files **110** at any phase or state associated with the component **108** in the software product lifecycle. For example, the phases of the software product lifecycle include, but are not limited to, predeployment of the software product **106**, deployment of the software product **106**, and post-deployment of the software product **106**. Other lifecycle phases are within the scope of the invention. The invention applies the files **110** in accordance with the instruction set **112** corresponding to the current lifecycle phase of the software product **106**. As such, the invention provides a single service package **104** that enable installation of the service package **104** at any phase, state, or operating context or environment of the software product lifecycle.

[0027] In an embodiment, the invention determines the state associated with the component **108**, accesses and selects one of the instruction sets **112** based on the determined state, and applies one or more of the files **110** to the component **108** in accordance with the selected instruction set **112** to modify the component **108** (e.g., add or remove components or files in the components). The invention also updates the manifests associated with the updated components **108** with data relating to the update process. A user such as an administrator queries the manifest stored for each of the components **108** to obtain a listing of all versions of