

[0169] At 610 of FIG. 6, the OS 112 recognizes a triggering event. Examples of a triggering event include (by way of example and not limitation) receiving a manual program invocation request from a user, receiving an invocation request from another program, and a scheduled time event for program invocation. This triggering event typically identifies the application to be invoked.

[0170] At 612, the OS 112 creates an instance of the identified application described by its application prototype. This instance is called an “application abstraction.” As illustrated by example structure 500 of FIG. 5, creating the application abstraction includes creating new instances of associated processes described by their process prototypes.

[0171] At 614, the OS maintains “dynamic” metadata that links associated processes with the identified application abstraction, processes with process prototypes, and applications with application prototypes.

[0172] At 616, the OS facilitates identification of and communication with application abstraction by other software components.

Exemplary Computing System and Environment

[0173] FIG. 7 illustrates an example of a suitable computing environment 700 within which an exemplary self-describing artifact architecture, as described herein, may be implemented (either fully or partially). The computing environment 700 may be utilized in the computer and network architectures described herein.

[0174] The exemplary computing environment 700 is only one example of a computing environment and is not intended to suggest any limitation as to the scope of use or functionality of the computer and network architectures. Neither should the computing environment 700 be interpreted as having any dependency or requirement relating to any one or combination of components illustrated in the exemplary computing environment 700.

[0175] The exemplary self-describing artifact architecture may be implemented with numerous other general purpose or special purpose computing system environments or configurations. Examples of well known computing systems, environments, and/or configurations that may be suitable for use include, but are not limited to, personal computers, server computers, thin clients, thick clients, hand-held or laptop devices, multiprocessor systems, microprocessor-based systems, set top boxes, personal digital assistants (PDA), appliances, special-purpose electronics (e.g., a DVD player), programmable consumer electronics, network PCs, minicomputers, mainframe computers, distributed computing environments that include any of the above systems or devices, and the like.

[0176] The exemplary self-describing artifact architecture may be described in the general context of processor-executable instructions, such as program modules, being executed by a computer. Generally, program modules include routines, programs, objects, components, data structures, etc. that perform particular tasks or implement particular abstract data types. The exemplary self-describing artifact architecture may also be practiced in distributed computing environments where tasks are performed by remote processing devices that are linked through a communications network. In a distributed computing environ-

ment, program modules may be located in both local and remote computer storage media including memory storage devices.

[0177] The computing environment 700 includes a general-purpose computing device in the form of a computer 702. The components of computer 702 may include, but are not limited to, one or more processors or processing units 704, a system memory 706, and a system bus 708 that couples various system components, including the processor 704, to the system memory 706.

[0178] The system bus 708 represents one or more of any of several types of bus structures, including a memory bus or memory controller, a peripheral bus, an accelerated graphics port, and a processor or local bus using any of a variety of bus architectures. By way of example, such architectures can include a CardBus, Personal Computer Memory Card International Association (PCMCIA), Accelerated Graphics Port (AGP), Small Computer System Interface (SCSI), Universal Serial Bus (USB), IEEE 1394, a Video Electronics Standards Association (VESA) local bus, and a Peripheral Component Interconnects (PCI) bus, also known as a Mezzanine bus.

[0179] Computer 702 typically includes a variety of processor-readable media. Such media may be any available media that is accessible by computer 702 and includes both volatile and non-volatile media, removable and non-removable media.

[0180] The system memory 706 includes processor-readable media in the form of volatile memory, such as random access memory (RAM) 710, and/or non-volatile memory, such as read only memory (ROM) 712. A basic input/output system (BIOS) 714, containing the basic routines that help to transfer information between elements within computer 702, such as during start-up, is stored in ROM 712. RAM 710 typically contains data and/or program modules that are immediately accessible to and/or presently operated on by the processing unit 704.

[0181] Computer 702 may also include other removable/non-removable, volatile/non-volatile computer storage media. By way of example, FIG. 7 illustrates a hard disk drive 716 for reading from and writing to a non-removable, non-volatile magnetic media (not shown), a magnetic disk drive 718 for reading from and writing to a removable, non-volatile magnetic disk 720 (e.g., a “floppy disk”), and an optical disk drive 722 for reading from and/or writing to a removable, non-volatile optical disk 724 such as a CD-ROM, DVD-ROM, or other optical media. The hard disk drive 716, magnetic disk drive 718, and optical disk drive 722 are each connected to the system bus 708 by one or more data media interfaces 725. Alternatively, the hard disk drive 716, magnetic disk drive 718, and optical disk drive 722 may be connected to the system bus 708 by one or more interfaces (not shown).

[0182] The disk drives and their associated processor-readable media provide non-volatile storage of computer readable instructions, data structures, program modules, and other data for computer 702. Although the example illustrates a hard disk 716, a removable magnetic disk 720, and a removable optical disk 724, it is to be appreciated that other types of processor-readable media, which may store data that is accessible by a computer, such as magnetic