

process automatically updates, i.e., invalidates the version specific information when a relevant event occurs. Moreover, the process automatically updates, i.e., invalidates the version specific information when a relevant event or update occurs. Automatically invalidating version specific information prevents relevant updates from being missed and further increases the probability that unnecessary actions are not taken. For example, with respect to the virus scan embodiment, version information is not to be invalidated on a backup or copy function such that future accesses do not require virus scanning, where prior art methods did not maintain such version information following backup and/or copy functions and therefore additional processing steps were performed.

[0069] As discussed above, the invention described herein may be implemented as a computer process, a computing system or as an article of manufacture such as a computer program product. The computer program product may be a computer storage medium readable by a computer system and encoding a computer program of instructions for executing a computer process. The computer program product may also be a propagated signal on a carrier readable by a computing system and encoding a computer program of instructions for executing a computer process.

[0070] Additionally, although the invention has been described in language specific to structural features and/or methodological steps, it is to be understood that the invention defined in the appended claims is not necessarily limited to the specific features or steps described. As an example, other applications may utilize version specific properties besides virus scanning applications and replicators. Additionally, other types of objects and object stores, other than XML object stores, may benefit from the principles of the present invention. Therefore, the specific features and steps are disclosed as preferred forms of implementing the claimed invention.

What is claimed is:

1. A method of providing version-specific information associated with an object stored in a computer system, the version specific information provided in a distributed environment, the method comprising:

receiving a request to create a version-specific property, wherein the property is associated with the object;

maintaining the version-specific property to reflect relevant updates to the object by automatically invalidating the version-specific information in response to a predetermined access request;

receiving a request by the application to evaluate the version-specific property; and

providing the version specific information to the application in response to the request to evaluate the version specific property.

2. A method as defined in claim 1 wherein the application is a virus scan application.

3. A method as defined in claim 1 wherein the application is a replicator application.

4. A method as defined in claim 1 wherein the version-specific property comprises meta information and mask information, the mask information providing information related to which predetermined events invalidate the version-specific property.

5. A method as defined in claim 1 wherein the predetermined event is an update to object data.

6. A method as defined in claim 1 further comprising:

providing mask information as part of the version-specific property; and

determining the predetermined event based on the mask information.

7. A method of as defined in claim 1 wherein the method further comprises:

providing security information within the version-specific property.

8. A method as defined in claim 1 wherein the invalidating act further comprises deleting the version-specific property.

9. A computer program product readable by a computer and encoding instructions for executing the method recited in claim 1.

10. A method of accessing an object stored in a computer system, the object having an associated version-specific property, said method comprising:

receiving an access attempt relating to an access request;

determining whether the access attempt relates to an invalidating access;

if the access attempt relates to an invalidating access:

invalidating the version-specific property;

performing the access operation related to the access request; and

if the access attempt does not relate to an invalidating access then performing the access operation related to the access request.

11. A method of accessing an object stored in a computer system, the object having an associated version-specific property, said method comprising:

receiving an access attempt relating to an access request;

determining whether the access attempt relates to an invalidating access;

if the access attempt relates to an invalidating access:

invalidating the version-specific property;

performing the access operation related to the access request; and

if the access attempt does not relate to an invalidating access:

determining whether the access depends on the version specific property;

if the access does not depend on the version specific property, then performing the access operation related to the access request.

if the access depends on the version specific property:

determining whether the property is valid;

performing a predetermined operation based on whether the property is determined to be valid.

12. A computer program product readable by a computer and encoding instructions for executing the method recited in claim 11.