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[54] OBJECT CONTAINER TRANSFER SYSTEM AND METHOD IN AN OBJECT BASED COMPUTER OPERATING SYSTEM

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[57] ABSTRACT

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An object based operating system for a multitasking computer system provides objects which represent the architecture or interrelationships of the systems's resources. Access to certain objects is required in order to use corresponding resources in the system. All objects have a consistent data structure, and a consistent method of defining the operations which apply to each type of object. As a result, it is relatively easy to add new types of system objects to the operating system. The object based operating system supports multiple levels of visibility, allowing objects to be operated on only by processes with the object's range of visibility. This allows objects to be made private to a process, shared by all processes within a job, or visible to all processes within the system. An object or an entire set of objects can be moved to a higher visibility level when objects need to be shared. In addition, access to each object is controlled through an access control list which specifies the processes authorized to access the object, and the types of access that are allowed. An object with a restricted access control list can be associated with a "privileged operation", thereby restricting use of the privileged operation to those user processes authorized to access the corresponding object. Waitable objects are used to synchronize the operation of one or more processes with one another or with specified events. The system provides routines for generating new types of waitable objects without modifying the operating system's kernel.

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[58] Field of Search ... **364/200 MS File, 900 MS File**

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