A Dossier Driven Persistent Objects Facility

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Abstract

We describe the design and implementation of a persistent object storage facility based on a dossier driven approach. Objects are characterized by dossiers which describe both their language defined and "extra-linguistic" properties. These dossiers are generated by a C++ preprocessor in concert with an augmented, but completely C++ compatible, class description language. The design places very few burdens on the application programmer and can be used without altering the data member layout of application objects or inheriting from special classes. The storage format is kept simple to allow the use of a variety of data storage backends. Finally, by providing a generic object to byte stream conversion the persistent object facility can also be used in conjunction with an interprocess communication facility to provide object-level communication between processes.[1]