

GENERAL OVERVIEW:

The Open Knowledge Initiative has produced a series of Open Service Interface Definitions (OSID's) informed by a broad architectural view of the educational technology landscape. As learning management systems have become a core component of the campus information technology infrastructure, O.K.I. seeks to simplify and enhance the creation of educational applications.

The OSID's are an abstraction layer between the programmer and the enterprise infrastructure systems of his or her campus. Each OSID is characterized by a tightly defined set of methods and strict boundaries. This approach offers a number of important benefits to applications designed to the OSID's:

- Simple integration with existing infrastructure
- Local innovations can be shared across campuses or universities
- Adaptation to new technology without destabilizing the overall environment.

To access the complete specifications for the following O.K.I Service Interface Definitions, please consult our SourceForge site at <http://okiproject.sourceforge.net>

SPECIFIC DESCRIPTIONS

Authorization	Filing	Workflow
Authentication	Dictionary	Scheduling
DBC	Logging	Sql
Hierarchy	Shared	Usermessaging

<i>OSID Name</i>	<i>Functional description</i>	<i>Why important</i>	<i>Use cases</i>
Authorization	The Authorization OSID allows an application to establish and query a user's privileges to view, create, or modify application data, or use application functionality.	Applications that can change Enterprise data need to manage a user's access to that data. An application must provide a fine degree of authorization granularity to reflect the complexity of a user's interaction with an application.	A graduate student TA has the system privileges to change the grades of the students in the course section that he teaches, but not the privilege to change his own grades.
Authentication	The Authentication OSID gathers required credentials from an agent, vouches for their authenticity and introduces the agent to the system.	The Authentication OSID permits an application to abstract the authentication process without having to manage the details of the underlying authentication service.	An application that permits users to log in remotely must be able to verify that they genuinely represent the user they claim to be.
DBC	The DBC OSID allows an application to access and modify the contents of a database by using the java.sql and javax.sql packages.	What differentiates the DBC OSID from JDBC is that by extending java.io.Serializable this OSID's objects can migrate across machine boundaries, permitting	The most efficient way to persistently store large quantities of complex data is in a relational database.

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		the database connection to exist on a machine other than the machine hosting the application.	
Hierarchy	The Hierarchy OSID manages parent-child relationships among elements. In addition to simple tree structures, the OSID supports hierarchy that are recursive and have nodes with multiple parents.	Parent-child relationships are fundamental structures that effectively model a variety of enterprise data.	User authorizations are usually stored as a hierarchy.
Filing	The Filing OSID provides platform-independent means to handle files arranged in simple hierarchical containers.	Most applications have occasion to manipulate their data through the use of files in some sort of file system.	Homework assignments could be submitted and stored as files.
Dictionary	The Dictionary OSID provides a means to support multiple languages, domain-specific nomenclature and culture-specific conventions through interchangeable property files.	Applications that can operate in a variety of cultural settings offer more value to a broader user community.	An application could offer the option of displaying menus in English or Spanish to support a multi-cultural student body.
Logging	The Logging OSID records and retrieves a variety of application activity history.	Applications typically track a variety of internal events and activity for purposes of analysis, data collection, and security.	An application might log the data modifications and the execution times of each modification.

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Shared	The Shared OSID contains fundamental objects used in the other OSIDs to provide their functionality.	The contents of the Shared OSID are used throughout O.K.I.-compliant implementations and applications.	A person, a requesting service, an external O.K.I. instance, or an O.K.I. tool are all examples of objects using the Agent interface.
Workflow	The Workflow OSID provides a way to manage an interdependent succession of activities each of which has completion constraints.	Certain types of applications have operations where one action is dependent on the completion of a previous action.	Workflows are commonly used to manage approval processes.
Scheduling	The Scheduling OSID manages events in shared calendars.	Class schedules are an example of events that are managed in shared calendars.	An application could use Scheduling to allow students to interactively select their preferred class sections.
Sql	The SQL OSID provides relational database access functionality at a higher level of abstraction than the DBC OSID. Unlike DBC, it is not dependent on JDBC.	An application's access to persistent information should focus on its own data manipulation requirements, not the operational details of the underlying data provider.	An application can store data in a database without concern for the specific type of database used.
Usermessaging	The Usermessaging OSID supports communication and notification among users.	Person to person (P2P) messaging has become a useful application feature with the availability of supporting P2P services as well as	A distributed learning system might want to provide a means for distributed students to interact with an instructor in real time.

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		e-mail, instant chat, and discussion boards.	