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DAL: Overview and Goals

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Overview

Data Access Language (DAL, formerly known as "CL/1") is a host database access tool that provides a connectivity language and a set of supporting software components that link personal computer applications to host databases. The connectivity language conforms to the Structured Query Language (SQL) standard. DAL can be used to access host database data from the desktop, where it can be manipulated and presented using familiar personal computer applications. Host databases can only be relational in nature.

DAL provides uniform access to host database data across a wide range of host hardware platforms, operating systems, database management systems, and network connections. The role of DAL is to insulate the desktop application from these details and differences, allowing it to concentrate instead on providing better interaction between "personal" processing on the desktop and organizational computing on the host system.

Goal of DAL

The goal of DAL is to provide an open, standard, host database access language that enables plug and play connectivity between desktop applications and organizational data. That is, a desktop application using DAL should be able, "out of the box," to access database data on a DAL-supporting host system and make that information an integral part of the data available to the desktop application user.

DAL gives software developers access to a broad range of shared database data through a single programming effort. DAL provides communications as a built in part of the runtime environment in the form of network adapters (communication drivers), thereby relieving the programmer from the burdensome task of

communications programming. Because DAL lets packaged application software uniform access different host operating systems, database management systems (DBMSs), and networks, DAL lets software developers focus on integrating corporate data into their applications, rather than low-level networking and programming tasks.

Using DAL, the desktop application can describe a host data access request in a uniform, high-level way. The DAL server for the host system then carries out the request and returns the results to the desktop application. DAL provides automatic data translation when transferring data between the client and host systems. The language supports a set of standard data types which are used to represent all data manipulated by DAL programs. Data from a host data source is automatically mapped into these standard data types when data is accessed. Descriptions of the host data source are also expressed in terms of the standard DAL types.

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