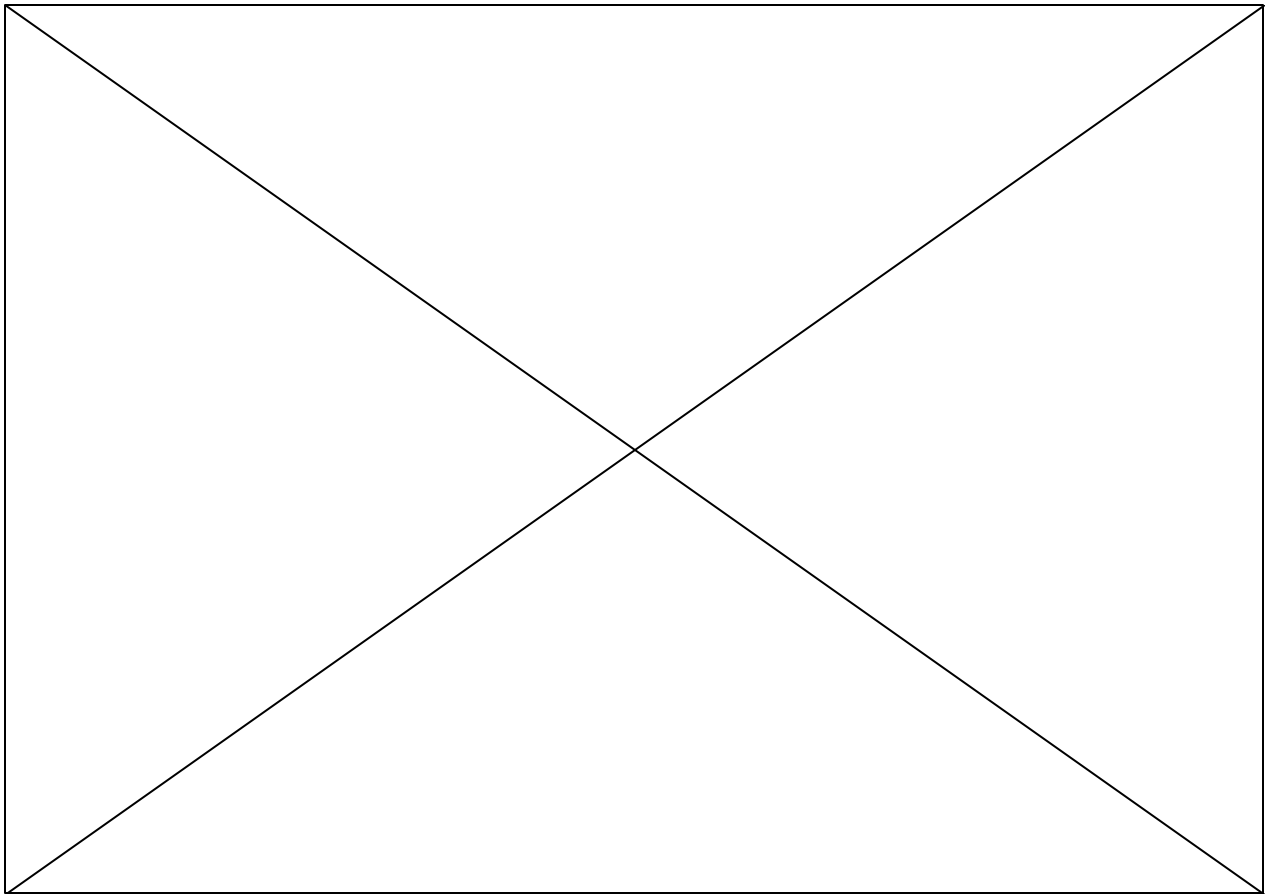# Data Access Language Developer's Toolkit for the Macintosh

Overview

The Data Access Language Developer's Toolkit for the Macintosh® is a set of software components that helps programmers build Macintosh personal computer application programs with embedded access to host data. When linked to a host system running the Data Access Language Server, the resulting Macintosh application gives users consistent, transparent access to shared corporate data using the familiar Macintosh interface.

To achieve this connectivity, the Macintosh application uses Data Access Language, a high-level, SQL-based connectivity language. Data Access Language allows Macintosh applications to access and interact with host data on a variety of minicomputer and mainframe systems in a uniform way, regardless of the particular host, operating system, database management system, or network connection.

All application program development is done on the Macintosh, and expertise in host programming or particular host systems is not required.

The Data Access Language Developer's Toolkit for the Macintosh is designed for use by Macintosh programmers, independent software vendors, and MIS departments designing Macintosh software.

In a single development effort, Macintosh software developers can build products that address the need for host data access in a wide range of customer environments.

Features	*Benefits*
· Data Access Language connectivity language	· Insulates Macintosh applications from the complexities of the particular host system, network, and data source to be accessed. · Allows an application to work with any host system that supports Data Access Language. · Facilitates development of Macintosh applications by allowing programmers to provide access to a wide range of host environments in a single programming effort.
· ANSI standard level 1, SQL-based data manipulation language	· Provides full support of SQL query and update features. · Provides uniform access to a wide range of data sources. · Uses syntax that is familiar to many developers and users.
· Integrated language that includes host connection, data manipulation, program control, and output management statements	· Allows the Macintosh user to proceed with other work while the host request is carried out. · Is easily integrated into the scripting languages of many applications. · Provides superior performance for repetitive requests. · Allows for greater utilization of host processing power.
· Applications insulated from differences between Macintosh and host representation of byte order, character set, and floating-point data	· Simplifies programming for the Macintosh developer.
· Application programming interface that resides in the Macintosh computer	· Allows all development to be accomplished on the Macintosh computer. Developers can provide host connectivity without investing in host hardware or acquiring host programming expertise.
· Uniform error codes, status messages, and catalog access across supported databases and system types	· Allows applications accessing a wide variety of host system configurations to be created with a single programming effort.

Features   # *Benefits*

Features	Benefits
· Documentation and sample application with C and Pascal call libraries	· Reduces startup time and ensures maximum productivity.
· Interactive utility for testing Data Access Language program statements	· Makes testing and debugging easier. · Allows a debugged Data Access Language program to be run without modification from within a Macintosh application.
· HyperTalk® XCMD and XFCN commands for Data Access Language access	· Provides complete Data Access Language session control, program execution, and result retrieval from within a HyperCard stack.
· Host data retrieval into Hyper-Card® fields, cards, and global variables	· Allows the developer to access host data with the easy-to-use HyperCard interface.
· Data Access Language documentation in the form of a HyperCard Help stack	· Allows the developer to become proficient quickly.
· Data Access Language sample HyperCard stack with easily incorporated cut-and-paste buttons and cards	· Reduces stack-development time.
· Licensing provisions for distribution of Data Access Language client software with Macintosh applications	· Permits commercial and in-house developers to make host connectivity an integral part of their Macintosh applications.
· Seamless interaction between Macintosh applications, Data Access Language client software, and a Data Access Language Server	· Allows users to enjoy easy access to host connectivity without needing to understand the underlying technology.
· Resulting applications work with any Data Access Language Server-equipped host	· Allows developers to serve various markets with a single programming effort.
· HyperCard utility for defining host connection strings	· Facilitates the host connection process.

Data Access Language Developer's Toolkit for the Macintosh

System Requirements	To use the Data Access Language Developer's Toolkit for the Macintosh, you need the following hardware and software: · A Macintosh personal computer	· Macintosh system software version 6.0.5 or later · The appropriate hardware and software for a supported network	· Access to a host computer with a Data Access Language Server, and a database management system and networking software supported by Data Access Language
Product Details	**Supplied Software** · Data Access Language device driver and driver installer · C and Pascal call libraries · Interactive Data Access Language tester · Sample applications, including source code · Data Access Language HyperCard XCMDs, including source code and sample stack	· Data Access Language documentation in HyperCard Help stack · HyperCard utility for defining host connections **Network Support** · Asynchronous communication, by way of direct or dial-up links · Support for the AppleTalk® network system based on the AppleTalk Data Stream Protocol (ADSP)	· Support for TCP/IP using Apple's MacTCP® networking software Support for the 3270 data streams and APPC (LU6.2) networking protocols Support for connections to IBM hosts using Avatar's MacMainframe, DCA's MacIRMA, and TriData's Netway 1000/2000 products · Asynchronous communication to IBM hosts equipped with protocol converters
Language Specifications	Data Access Language is a complete language for describing connectivity tasks. It consists of these statement groups: · *Host connection statements,* which establish and terminate a connection to a host system in the network, providing concurrent access to multiple hosts running	Data Access Language servers · *Data manipulation statements,* which offer complete ANSI standard level 1, SQL-based data access to host databases *Program structure statements,* which support testing, looping, and procedure calls within a Data Access Language program	· *Output statements,* which generate output messages from the Data Access Language program; these messages are processed by the client application · *Execute statement,* which permits execution of DBMS-specific commands not defined by Data Access Language
Ordering Information	To order the Data Access Language Developer's Toolkit for the Macintosh, Order No. M9004LL/D, contact: APDA® (Apple Programmers and Developers Association) Apple Computer, Inc. 20525 Mariani Avenue, M/S 33G Cupertino, CA 95014-6299 (800) 282-2732	With your order, you receive: Six 800K disks that contain the Data Access Language Developer's Toolkit for the Macintosh software · *Data Access Language for the Macintosh Installation and User's Guide* Order No. M0933LL/B · *Data Access Language Programmer's Reference* Order No. M0877LL/A	· *Data Access Language Application Developer's Guide* Order No. M0878LL/B For information about licensing, contact: Apple Software Licensing Apple Computer, Inc. 20525 Mariani Avenue, M/S 38I Cupertino, CA 95014 (408) 974-4667 TLX: 171-576
Apple Computer, Inc.	20525 Mariani Avenue Cupertino, CA 95014 (408) 996-1010 TLX: 171-576		