



## Overview

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The Data Access Language (DAL) Server for VAX<sup>®</sup>/VMS<sup>®</sup> is a networking software product that provides DAL access to files and databases on a VAX/VMS host system. Running on the VAX/VMS host, the Data Access Language Server works cooperatively with personal computer applications that support Data Access Language, such as spreadsheets, databases, and query tools on Apple<sup>®</sup> Macintosh<sup>®</sup> computers.

A total Data Access Language connectivity solution for VAX/VMS includes a client personal computer running an application with embedded Data Access Language support, and a VAX/VMS host with the Data Access Language Server. The DAL Server receives requests from the personal computer application, carries them out on the VAX, and sends the desired data back to the application for local processing.

The Data Access Language Server for VAX/VMS provides uniform support for Data Access Language-based applications, through a variety of network configurations and VAX/VMS data management software. It works with existing VAX/VMS databases, operating under standard VMS and database security. As a result, Macintosh computer users receive seamless, transparent access to the VAX data they are authorized to access.

# Features

# Benefits

· Server operates as a user process under standard VMS username/password security

· Maintains the security and integrity of VAX/VMS and the database management system.  
· Eliminates the need for new system administration procedures on the VAX.

· Uniform support for Data Access Language clients

· Allows one server to support all Macintosh computers running Data Access Language-compatible applications.

· Uniform concurrent support for VAX databases

· Insulates personal computer applications from the complexities of the database being used.  
· Supports multivendor environments.

· Standard VAX/VMS installation procedures

· Makes installation quick and easy.  
· Allows the user to continue other work while the Data Access Language Server performs a connectivity request.

· Asynchronous operation

· Returns program control to the Macintosh so the user can perform other tasks while the Data Access Language server carries out the requested operation on the host.

· Incremental compiler implementation

· Reduces the client system processing load.

· Trace facility

· Facilitates debugging and system tuning.

· Interactive utility for testing Data Access Language program statements

· IDAL ensures proper connection, installation, and operation of host server.

· Stored procedures

· Minimizes network traffic by storing commonly located procedures on the host, where they can be shared.

· Sample tables

· Makes developing and testing applications easier.

· Wide range of commercial applications with Data Access Language connectivity available today

· Provides spreadsheet, query tool, and mapping tool users with seamless host data integration with no programming effort.

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## System Requirements

To use the Data Access Language Server for VAX/VMS, you need the following:

- Host environment: VAX/VMS version 5.1 (or later)
- Macintosh computer clients running Data Access Language-compatible applications

- One or more of the supported database management systems
  - The appropriate networking hardware and software
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## Product Details

### Database Support

- Informix version 2.1 (or later)
- Ingres version 6.1 (or later)
- Oracle version 5.1.22 (or later)
- Oracle version 6.0
- Rdb/SQL version 3.1 (or later)
- Sybase SQL Server version 3.0 (or later)

The Data Access Language Server provides standard database naming, datatypes, system catalog structure, error codes, and buffer management.

### Client Support

- Uniform support for any application developed with Data Access Language Developer's Toolkit for the Macintosh using a supported network

### Network Support

- Asynchronous direct and dial-up connections
- Support for the AppleTalk® network system (requires AppleTalk for VMS version 2.0.6 or later for Phase I and version 2.1 for Phase II), which is supplied with Data Access Language Server for VAX/VMS.

### Asynchronous Communications

- Transmission speed: 300 to 19,200 baud
- Character length: 7 or 8 data bits; 1 or 2 stop bits
- Parity: Odd, even, or none
- Handshake
  - XON/XOFF and none
  - Modem and direct connections
  - Log-on sequence specification
- Protocol
  - Error-correcting (16-bit CRC)
  - Data compression
  - Binary data transparency

### Resource Usage

- 1 megabyte of disk storage
- Proper usage verified by test program
- One sharable, reentrant 200K-300K process shared by all attached Macintosh applications



# Data Access Language Server for VAX/VMS

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## Language Specifications

DAL is a complete language for describing connectivity tasks. The Data Access Language 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

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## Ordering Information

To order the Data Access Language Server for VAX/VMS, contact:

Apple Programmers and Developers Association (APDA<sup>®</sup>)  
Apple Computer, Inc.  
20525 Mariani Avenue, M/S 33G  
Cupertino, CA 95014-6299  
(800) 282-2732

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## Data Access Language Server for VAX/VMS

With your order, you receive:

- A 9-track tape (Order No. C0142LL/C) or TK50 cartridge (Order No. C0143LL/C) containing the Data Access Language Server software and the installation and configuration programs

- Data Access Language Server Installation and Operating Guide for VAX/VMS (Order No. M0934LL/A)
- 90 days of free software support from Apple's Technical Answer Line. After the initial 90-day period, annual support contracts are available for a fee.

For information about licensing, contact:

Apple Software Licensing  
Apple Computer, Inc.  
20525 Mariani Avenue, M/S 28B  
Cupertino, CA 95014  
(408) 974-4667