



# Tech Info Library

## Macintosh: Cross-Platform Client/Server Solutions (2 of 2) 8/95

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TOPIC -----

This article contains the Apple World-Wide Market Development Position Paper titled "Cross-Platform Development Tools and Client/Server Solutions Update for Apple Computer's Macintosh." This is part 2 of 2, of version 2.51 of the document.

DISCUSSION -----

### 3) Apple Internal Efforts to Deliver Cross-Platform Tools

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Apple's (i.e., AppleSoft's) dedication to the cross-platform development tools arena has lead to two specific tactics:

- The re-sale of certain "best of breed" tools through Apple's Programmer & Developer Association (APDA) Catalog.
  - This ensures more widespread knowledge and use of some important tools
  - For more information, consult the APDA catalog or call APDA at 1-800-282-2732
- The funding of internal projects (within AppleSoft) to deliver (or help deliver) development tools of exceptional quality. Some primary examples include:

Dylan

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A dynamic language and tool for object-oriented programming and development, Dylan's position in Apple's tool line is currently being recast to incorporate some important market-oriented features. Dylan is designed to create an environment that provides breakthrough improvement in object-oriented programming. The Dylan language is intended to co-exist with other object languages (such as C++), while providing an effective alternative. Cross-platform functionality is seen as an important capability for this tool.

## Denali

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This joint Apple-IBM project will deliver a high-level, cross-platform tool for solutions development and in-house programming. The environment will generate cross-platform OpenDoc parts (for Windows and Macintosh). Some planned features include a visual programming paradigm, HyperCard stack support, support for key middleware APIs (such as ODBC), some level of compatibility with Microsoft's Visual Basic (VBXs), user extensibility, and a scripting capability.

## OpenDoc Development Framework (ODF)

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Apple is combining the Bedrock and OpenDoc technologies to create the OpenDoc Development Framework (ODF), which will allow the creation of commercial-quality OpenDoc parts for both Macintosh and Windows with one development effort. Apple strongly recommends the use of the OpenDoc Development Framework for future development because it provides the increased productivity of a framework, full entry into the world of OpenDoc software, and cross-platform development capabilities. A developer release version of the OpenDoc Development Framework was given to attendees of the 1995 WWDC, and completed versions will be distributed through standard developer programs in late 1995.

## Novell AppWare

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Novell AppWare provides a visual programming interface to create applications based on existing AppWare Loadable Modules (ALMs) and v1.2 is currently shipping for Windows and the Macintosh. Novell plans to include full OpenDoc support in future versions of AppWare to allow the graphical creation of OpenDoc parts and containers. For more information on AppWare, contact Novell at 800-277-2717.

## MacApp 3.5

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Due in late 1995, this new version of MacApp will support OpenDoc (container support), PowerTalk mailers, and scripting. This version update underscores Apple's commitment to this long-preferred Macintosh development framework. The intent with v 3.5 is to extend the life of today's C++ MacApp source code while allowing developers to take the first step toward full support of component software technology (i.e., OpenDoc). MacApp 3.5 delivers a partial OpenDoc solution by creating a container that will support the embedding of commercially available OpenDoc parts. For full OpenDoc support, Apple recommends that, when it becomes available, OpenDoc Development Framework be used because it provides a truly cross-platform solution.

## Apple Media Tool / Apple Media Tool Programming Environment

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Through its visual programming language, this offering is well-suited to large-scale, multi-person development efforts (even with non-programmers). This tool is already being used by third-parties to create commercial CD-ROMs to generate both Macintosh and Windows products from the same project..

## Script X

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The first product of a joint (Apple & IBM) venture, Kaleida Laboratories, Script

X seeks to deliver a completely cross-platform media player and deployment vehicle for multimedia-based applications. Such a cross-platform tool should hasten the arrival and delivery of many cross-platform titles. Other companies will deliver the development environments within which Script X applications will be created.

Taligent CommonPoint  
(formerly Taligent Application Environment or Tal A)

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Apple plans to package Taligent technology with its own to provide customers with solutions that meet their needs. With its Copland operating system release, Apple will deploy the CommonPoint system on PowerPC-based computers. This will allow the CommonPoint system to run Macintosh and Taligent applications side-by-side. Also with Copland, Apple's first microkernel-based operating system, the ability to host Taligent Object Services on the microkernel exists. Additionally, Apple will begin to incorporate Taligent technologies into the Macintosh operating system, offering customers a choice of using the Taligent People, Places, and Things human interface along with the Macintosh user environment. Finally, Apple is actively working with Taligent to ensure interoperability between OpenDoc and Taligent technologies.

#### 4) Dedicated Personnel to Improve Apple's On-Going Development Tools Position

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Several divisions of Apple Computer have active "evangelism" efforts, to help ensure the Macintosh platform is well-represented with development tools and client/server solutions providers:

These groups engage in a cross-divisional business planning process. Such planning will help ensure Apple derives maximum exposure and benefit from its overall evangelism efforts. Most importantly to Apple's enterprise customers, the Apple WorldWide Marketing team specifically tracks enterprise market requirements as the basis for its evangelism efforts. To that end, all field and customer input is welcome (in fact solicited) to ensure it is on the right track in its evangelism efforts. All customer feedback should be channeled through the customer's assigned Apple Account Executive.

#### 5) Apple's Commitment to VITAL

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The IS (Information Services) community needs a truly open, vendor-independent architecture that allows customers to interconnect best-of-breed products in various categories to provide the greatest functionality and highest performance at the lowest possible cost. In addition to being open, the ideal IS architecture allows incremental deployment of new systems, enables rapid assimilation of new technology, and accommodates existing systems.

VITAL is an architecture for understanding, building, and implementing information systems. VITAL is open and vendor-neutral. VITAL addresses both new and legacy systems from microcomputer to mainframe. VITAL aims to provide

systems solutions that are based on client/server methods. Rather than specifying products, VITAL describes building blocks and associated functionality that can be implemented by means of hardware and software products that adhere to open systems standards. VITAL does not specify standards, but instead categorizes and indexes the functional characteristics that the standards implement. For example, VITAL describes types of middleware and when to use them, while standards specify OSF DCE or Novell Netware as implementations of middleware.

The VITAL framework is a conceptual model of client/server business computing described in terms easily understood by technicians, users, and executives. The objectives of the framework are to help IS organizations design systems that preserve legacy investments, provide access to operational data, balance system workloads, and reduce the cost of implementing systems.

For more information on VITAL, refer to the brochure entitled, A Technical Introduction to VITAL, An Architecture for Open Information Systems and/or the complete VITAL Technical Architecture Guideline (TAG) Documents. The TAG Documents are available through Apple's Programmer and Developer Association (APDA) at 1-800-282-APDA.

Apple's intent with VITAL includes:

- An internal commitment to the VITAL architecture as the mechanism in which it deploys client/server information systems,
- A commitment to linking its customers with highly knowledgeable and responsive consultants who can advise on the implementation of VITAL-ized systems. Such consultants can be found via the VITAL Consultant's Network. Information on VITAL-certified consultants can be found on the July 1994 APPLE CD-ROM.
- a commitment to disseminating solution / success stories of the VITAL architecture. MacIS will act as one focal point for disseminating the acceptance of VITAL.

Support Information Services

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