Apple Dylan™

APPLE DYLAN is a new programming language and development environment which will provide a breakthrough in your productivity as a programmer, while preserving the high performance and deliverability advantages of languages such as C and C++.

Apple Dylan is designed to meet the needs of professional programmers creating general purpose applications for the Macintosh and other platforms.

Apple Dylan's unique combination of a new object-oriented dynamic programming language and a state-of-the-art incremental development environment will provide you with the ability to write software more quickly and easily.

Apple Dylan will provide you with a wide variety of tools for your application development needs. It will include the Dylan compiler and runtime, development environment, application framework, user-interface design and prototyping tool, and cross-language support for accessing existing C and C++ code and APIs from within Apple Dylan.

Apple Dylan will provide a breakthrough in productivity and ease-of-development, while remaining a practical choice for mainstream development needs.

The Language

The Dylan programming language was designed from the ground up for power and ease-of-use. Its simple object-oriented design provides an easy learning curve and lower code maintenance cost. Yet it's practical for serious development, enabling you to deliver small, fast applications and code libraries.

Dylan provides you with safe and efficient automatic memory management. This eliminates a whole class of memory-related bugs, and lets you write better code in less time. With both compile-time and run-time type checking, as well as a high-level exception handling and error recovery mechanism, Dylan gets your product to market more safely and quickly.

With its advanced, modern features, Dylan allows you to work at a higher level of abstraction than is possible with traditional static languages.

The Environment

The Apple Dylan development environment is designed to let you create complex, commercial-quality projects with all the advantages of a rapid-prototyping environment.

Your project is stored in a database, unlike traditional, file-based systems. Apple Dylan's customizable browsers will give you a powerful new way to look at and manipulate your application as it executes. You can browse class hierarchies graphically, find all references to a given routine or variable, and inspect objects in your program while it's running.

With Apple Dylan's incremental compiler, you will be able to actually change code in a running program and see the results right away. No more waiting for a long edit, compile, link, execute, debug cycle. This gives you freedom as a programmer to explore various options and rapidly improve your product.
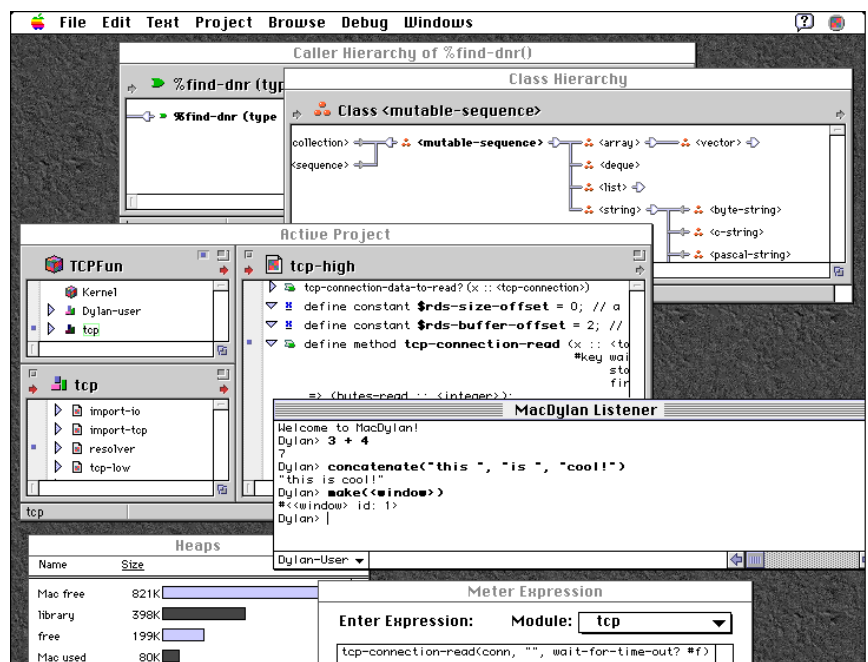
Apple Dylan features:

Greater Programmer Productivity

- Automatic memory management saves you from having to manage memory yourself and simplifies your program design
- Incremental development environment lets you see the results of code changes quickly allowing greater freedom to experiment
- Advanced browsing and editing capabilities allow you to see different views of your code and find and make changes more easily

Greater Application Reliability

- Automatic memory management eliminates hard to find memory-related bugs including memory leaks
- High-level exception handling and error recovery mechanism helps you catch errors before they affect your users
- Compile-time and run-time type checking finds type errors early

Greater Code Maintainability

- Dylan programming language provides clean, readable code
- Advanced browsing and editing environment helps you find and change code quickly
- Built-in module system for organizing your code into logical parts with well-defined interfaces

Meets Practical Programmer Needs

- General purpose programming language with a familiar, consistent syntax
- Able to produce small, fast deliverables
- Interacts seamlessly with existing code written in C and C++, as well as existing APIs

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Apple is committed to seeing many implementations of the Dylan language on various platforms. We welcome and encourage alternative Dylan implementation efforts. We are working with third parties to provide both commercial and non-commercial Dylan solutions for many major software platforms.

Apple Dylan will include:

- Dylan compiler and runtime
- Integrated development environment featuring incremental development and advanced configurable browsing and viewing of code
- Dylan application framework
- Dylan user-interface design and prototyping tool
- Cross-language support allowing seamless access to existing C and C++ code and APIs

If you are interested in getting an early start in Apple Dylan as an early seed user, please send a message to DYLAN (via Applelink) or DYLAN@applelink.apple.com (via Internet) with your name, address, telephone number, and how you will use Apple Dylan.