



# 4th Dimension 2003

*Build powerful database and web applications*

## Unlimited horizons

4D is powerful and productive. With a 4GL language of over 800 commands 4D gives you the power to create almost any system imaginable. Don't waste time jumping through hoops. Focus on what really counts – building the solution you need.

## Outstanding performance

If you're familiar with the performance levels of some common database applications then 4D's speed and scalability will surprise you. It handles up to 16 million records per table and it's very fast. Hundreds of thousands of records can be queried, sorted or imported/exported in a split-second.

## Powerful reporting

4D provides all the reporting tools you might need. This includes end-user reporting tools and direct 2D and 3D graphical output. The 4D Product Line also includes word-processing, spreadsheet and vector drawing tools.

## Custom interfaces

As a developer you need tight user interface control. 4D lets you set up personal style sheets for interface elements and re-use stored interface objects on multiple layouts. The 4GL language can control interface objects allowing truly exceptional interface design.

## Rapid deployment

Many projects fall at the last hurdle – deployment. 4D's integrated compiler readily deploys double-clickable applications for use on CD or distribution via the Internet. You can also opt for client-server where demanding applications pose no problem with 4D Server's distributed processing.

Application updates are simple and centralised. Simply copy your amended application and 4D Server will automatically re-synchronise your data file and update everyone on the network the next time they log on.

## Flexible connectivity

Sooner or later, your systems will need to talk with other applications. 4D's open architecture supports connections to many different standard databases including Oracle, Sybase, DB2 and SQL Server. You can also use ODBC connections to and from external applications like Crystal Reports, MS Query and Excel.

## Web services (SOAP)

4D gives you full the power of Web services, acting both as a SOAP server and a SOAP client. This allows you to interface with other Web services platforms including .NET™ and J2EE™. One click publishes your method and creates your WSDL file. You can also export or import your records directly in XML and manipulate and parse XML data.

## Windows or Mac?

4D is equally happy on Windows and Macintosh computers. You can develop on either platform and move to the other without any re-coding or re-engineering.

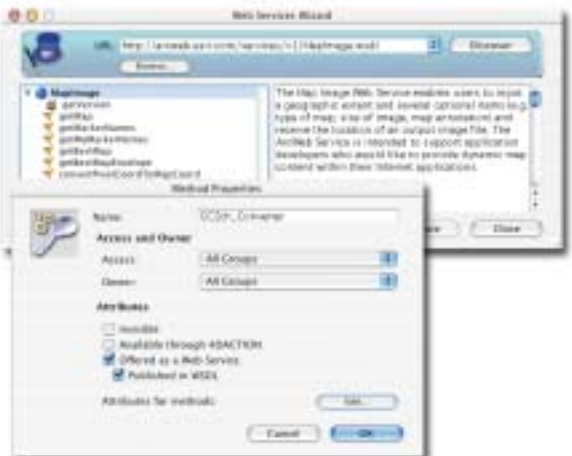
*Powerful applications demand powerful tools. The 4D Product Line offers unbeatable tools for web development, client/server systems, enterprise connectivity and more.*



*Fast, scalable, flexible and robust – 4D is the perfect choice for database developers. Make the move to 4D now and your business could soon change for the better.*



CREATE PROFESSIONAL INTERFACES IN A FEW CLICKS



INSTANTLY CALL AND PUBLISH WEB SERVICES

## The database

4D is a fully relational database with B-tree indexes. It performs lightning-fast searches and sorting and boasts impressive processing power.

- scale from 1 to 250 users in seconds with no re-engineering
- support thousands of concurrent web users
- enjoy support for 16 million records per table and up to 255 tables in one file

## Data entry

4D keeps data in good shape, imposing formatting requirements and enforcing relational integrity.

- choose from alpha, numeric, text, date, time, Boolean, BLOB and picture fields
- specify mandatory and unique attributes, acceptable values, entry filters and choice lists

## Building interfaces

A flexible form wizard gives you a wide range of interface templates. But it doesn't stop there. 4D offers huge flexibility in how interfaces are built and work.

- store elements once for re-use on multiple forms
- set up your own style sheets
- edit the menu bar
- use context-sensitive help and "tips"
- control objects manually or via the 4D language

## Building reports

Powerful query editors make 4D a great reporting tool. A huge range of end-user options allow flexible data manipulation and give you all the choices you need.

- write labels, format letters and other documents
- list reports, crosstab reports with horizontal and vertical totals
- spreadsheet generation with 4D View
- create charts such as 2D/3D, bar, pie, line and scatter

## 4GL programming language

If you're writing applications, your options are determined by the power of the language. The 4GL in 4D has over 800 commands and comprehensive debugging keeps development on track all the way through. You can build high performing, multi-window and multi-process applications.

- method editor with syntax checking, macros and on-line documentation
- event driven GUI programming
- trigger support
- associate code with events and objects
- complex cross-relational queries
- build your own plug-ins with C, C++, C# and others

## Integrated compiler

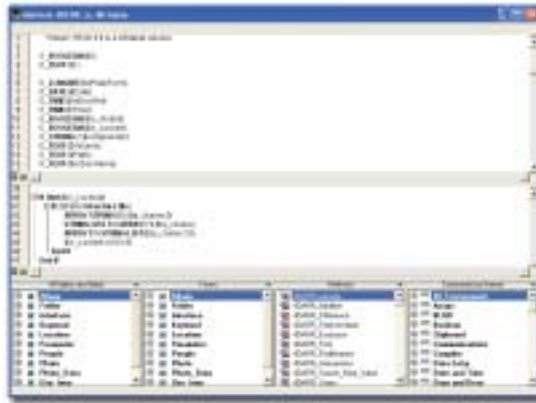
A true machine-language compiler makes application building simple in 4D. You can target applications for Windows and for Macintosh from the same source code.

- syntax checking and "just in time" debugging
- enhanced application performance
- code protection for the developer

## Talking to other systems

4D includes all the standards you need to communicate with other systems.

- Oracle (OCI 8) connectivity
- ODBC connectivity
- APIs for Java, C and C++
- SOAP support (client & server)
- access to platforms such as .NET™ and J2EE™
- OLE Link
- XML import/export and parsing



ACCELERATE YOUR DEVELOPMENT WITH 4D'S OPTIMISED TOOLS

## Deploy where you need to

The solutions you create in 4D are at home as standalone, client server or web applications. Installation and administration are easy and you can deploy compiled or uncompiled.

- Win 98, 2000, NT, ME, XP
- Mac OS X, 9.1+

## Efficient web serving

Because 4D has a built-in web server, static and dynamic pages are served rapidly to thousands of simultaneous users. You can serve web pages directly from 4D or interact with IIS, 4D WebSTAR and Apache.

- HTTP basic authentication
- multi-homing
- CSS (cascading style sheet) support
- cookie support and special 4D tags for server-side includes
- WML, JavaScript, CGI
- Dreamweaver & GoLive plug-ins
- send and receive emails (SMTP/POP3/IMAP4) or files (FTP)
- 128 bit SSL support

## Security

Security is extensive. User and groups-based password systems give full structure access control and there's a comprehensive backup facility.

- options for mirroring and logging database activity
- data checking and repair tool

## Educational materials

4D users can become fully operational quickly, thanks to a wide range of books, training courses, mailing lists and online resources.

## Technical support

You don't need to develop on your own. A range of comprehensive technical support programs is available to suit every level of 4D user, from in-house developers to professional database developers.

### SYSTEM REQUIREMENTS

#### Windows

Pentium II minimum  
Windows 98, Windows NT 4,  
Windows 2000, Windows ME,  
Windows XP.

64 Mb RAM

Compatible with Citrix Meta  
Frame and Windows Terminal  
Server.

#### MacOS

iMac minimum  
Mac OS 9.1 with CarbonLib 1.4,  
Mac OS X native  
64 Mb RAM minimum