Delphi 2.0 Feature Benefit matrix   January 9, 1996

Only Delphi 2.0 combines a high-performance 32-bit native-code compiler, powerful database programming tools and drag-and-drop visual components.

Performance

NEW! High-performance 32-bit optimizing native code compiler	Delphi's optimizing 32-bit native code compiler gives you the fastest way to the fastest applications. Your applications result in royalty free, standalone executable files for rapid deployment. No runtime interpreter DLLS necessary! For Delphi users, a simple recompile can increase performance up to 300-400%. Compared to interpreted P-code, applications run 40-50x faster. The new optimized linker makes EXEs up to 20-25% smaller. Other optimizations to the new 32-bit enabled code include: register optimizations, call stack overhead elimination, loop induction variables, pentium safe fdiv, and common subexpression removal.
Full code compatibility	No matter where your Windows based applications reside today, Delphi supplies the complete solution: stay with Windows 3.1, or migrate to a high powered 32-bit development environment on Windows95 or NT. Delphi's code compatibility from 16 bit up to 32-bit lets you protect your application investments while moving to new operating systems. Most code recompiles with no changes. To ease migration, each version of Delphi 2.0 includes the current 16-bit version of Delphi for Windows 3.1.
NEW! True 32-bit Development	Because Delphi 2.0 is a native code 32-bit compiler, you gain powerful performance benefits, faster applications, long filenames, unicode support, multi-threading, and complete access to the Win32 API. There's more available memory because the compiler runs in a 32-bit flat address space, completely eliminating the limitations associated with a 16-bit segmented architecture like Windows 3.1. You can declare arrays, strings, records and other data structures to be as large as you like, up to 2 gigabytes in size! The size is limitless because there are no more 64K barriers!
Easier code sharing with other Windows applications	Because of Delphi's native code compiler, you can create reusable DLLs that work with C++, dBASE, Paradox, Visual Basic, PowerBuilder and other Windows applications. Delphi's component based architecture lets you seamlessly integrate DLLs, OCX controls and OLE Automation servers into your Windows programs. Delphi 32 is built around the same high performance back-end compiler technology as Borland C++, with the benefit of allowing customers to generate .OBJ files and maintain closer integration of C++ or Delphi applications. Programmers can leverage existing work because the common backend lets them share code between Delphi and C or C++.
Object Oriented Component Architecture	Delphi lets you exploit the power of Object Oriented programming to create robust, efficient applications. Build your own components with Delphi's proven object oriented component architecture. Because Delphi 2.0 is a completely object-oriented environment, integration of OLE controls (OCX) is seamless. Use, customize or subclass components to fit you development needs, all from within the Delphi environment.

Productivity / Ease of Use

NEW! Visual Component Library (VCL32):	Delphi 2.0 includes an enhanced implementation of the Visual Component Library, containing approximately 100 handy components that developers "drag and drop" to create sophisticated Windows applications. VCL32 includes full encapsulation of the Windows 95 user interface elements (Tree Views, Trackbars, sliders, progress bars, Toolbars, Rich Edit, List Views, Image Lists header and status bar controls, etc), along with many additional components. These additional components complement the existing tabbed notebooks, data grids and multimedia tools to help you build sophisticated applications and move you from prototype to production quickly.

NEW! Visual Form Inheritance	Visual Form Inheritance gives you the power of object oriented programming in an easy to use visual tool. Visual Form Inheritance centralizes changes, makes code easier to maintain, and reduces turn-around time for new features. A key strength of Delphi is it's proven architecture for object oriented computing and reusability; using inherited forms extends this model to create flexible applications that rapidly adjust to changes in production environments.
NEW! Easier to understand Error messages	The compiler now gives a much clearer, english language, indication of the problems with better diagnostic messages on syntactic errors. Simpler error messages make Delphi easier for programmers who are new to Object Pascal. The easier to understand error messages include many common syntactic errors like forgotten semi-colons. These messages provide a smooth transition for programmers using Delphi to complement their existing development language.
Multi-error compile with Hints and Warnings	The new multi-error architecture helps programmers resolve errors faster. Using a hot-key, programmers can jump to and fix multiple problems in a single compile. The new compiler even catches logic errors, like empty loops, uninitialized pointers and unused variables that result from ambiguous or incorrect code. This makes it easier to find bugs before they cause problems, and to verify large programs for correctness.

Productivity Features available in Delphi Developer 2.0 and Delphi Client Server Suite 2.0

NEW! Object Repository	Delphi 2.0 introduces a next generation methodology for storing and reusing data models, business rules, objects and forms. A centralized object repository of form designs links into a reusable database architecture. Combining the flexibility of Borland's Database Engine with a repository of reuseable tools, gives developers unprecedented responsiveness to application demands. Because building on an existing foundation reduces development time, Delphi's Object repository stores forms and complete applications for reuse. Any new application can inherit, reference, or simply copy an existing structure - you pick the architecture that best fits your development needs.
Installation Deployment expert	Delphi supports fast and easy deployment of your completed application with an integrated expert that allows developers to create installation disks for their applications. InstallShield Express, Delphi's custom install utility, asks a few simple questions and then does the work of building a professional looking install for all applications - including efficient deployment of complex database applications.
Extended Open Tools API	Delphi's extended Open Tools API lets you add custom development tools directly into the Delphi environment. Link into your favorite editor, interact with Case tools or activate a version control management system. Automate repetitive tasks by creating your own experts.
FREE! VCL32 Source Code	In order for professional developers to more rapidly create their own reusable custom components, Delphi 2.0 Developer includes source code for the enhanced VCL32, which provides unique insights into the workings of Delphi and its components. Source code availability lets you learn from example and reuse existing components.
Advanced math library	Contains over 2 dozen functions for statistical and financial calculations, including source code with pentium optimizations.

Database

NEW! Data Module Objects	Data Module Objects act as your applications information core, they define datasources, store relationships, and apply business rules to your database. With this centralized model for data access, you can separate your business rules from the GUI development for easier maintenance. As changes happen in your business world, simply change behaviors at the Data Module level, and the results appear instantly throughout applications using that module. For faster database development, Delphi Data Modules act as a codeless way to connect and manage multiple forms from a single location. Working with data modules means you only have to define your database links once, and then drag and drop fields to build additional forms anywhere on your network..

NEW! Scalable Database Dictionary	The Database Dictionary stores and uses customized information about the contents and behavior of the data in your tables. The data dictionary holds information about extended field attributes like min, max and default values, display preferences and edit masks. Because it is reuseable across forms and applications, you can quickly establish and maintain data integrity.
NEW! Drag and Drop Database Development	Delphi 2.0's makes powerful database programming as simple as drag and drop. Delphi uses the data dictionary to automatically customize the display and edit properties of your data. You select the fields and Delphi instantly builds all the connections for a live database application.
NEW! Data Aware Controls	Delphi 2.0 adds new controls to its comprehensive suite of data aware components. Designed for fast and flexible programming, new dataaware controls include: a variety of lookup and listbox capabilities to show your users exactly the information you want - while underlying tables remain free to update and display.
Enhanced DBGRID	The new custom dbgrid offers codeless support for quick searching and automatic lookup fields. Create multiple custom views to the same data with the DBGrid column editors.
NEW! 32-bit Borland Database Engine	Delphi 2.0 is built on a new 32-bit Borland Database Engine. This flexible database engine scales smoothly to client server while providing transparent data sharing between applications. With features like a new Query Engine, improved dBASE integration, BCD support for financial applications and low-level API support, BDE forms a solid foundation for all your database applications. Borland's database engine is tightly linked into Delphi 2.0's reusable database repository and Data Module architecture.
Fast Filters and Smart Lookup Fields	Fast Filters and Smart Lookups let Delphi do the database work for you. Now you can find and display the information you need with the touch of a button. Fast Filters make viewing a specific subset of your data as fast and easy as changing a property. The Filter property supports flexible expression filters. Smart lookups automatically provide a dropdown box to seamlessly display data from multiple tables. Working through the Borland Database Engine, both fast filters and automatic lookups instantly present a customized view of your data.
QuickReports	QuickReports lets you design reports visually with native components and the Delphi form designer. Reports are built with bands and may contain titles, page headers and footers, multiple detail sets, summaries, group headers and footers. Report from any DataSource, including TTable and TQuery or even from arrays, lists or whatever data you want, use the powerful on-screen preview to check your results. Perform calculations like summary and counting of fields automatically. Calculations can be reset at grouping level.

Database Features available in Delphi Developer 2.0 and Delphi Client Server Suite 2.0

NEW! Database Explorer	The Database Explorer provides a graphical way of managing all your database demands, it supports the creation and modification of tables, indices and aliases. It is an integrated database schema and content management utility tailored to the needs of professional database developers.
Multi Object Grid	Showing detailed views of your data has never been easier. Delphi's new multi object grid lets you decide whether data appears in rows or individual panels. Panel views support multiple dropdowns, checkboxes, and memo fields. As with the dbgrid, the multi object grid supplies the user with codeless support for quick searching and automatic lookup fields.
ReportSmith	The new 32-bit version of ReportSmith tightly integrates directly with Delphi datasources, providing comprehensive reporting capabilities and live data access.

Windows 95 and NT System Support

Leverage the advantages of Windows 95 and NT	Delphi 2.0 moves rapid application development into the 32-bit world. With a suite of new Windows 95 components, you can design elegant Windows95 logo compliant applications. In addition to 32-bit support for long file names, multi-threading and the

	Win95 API, Delphi includes a complete suite of Windows 95 controls: TreeViews, Header controls, Status Bars, progress meters and more.
Complete access to Windows 95 and NT API	Delphi 2.0 allows programmers to exploit all of the enhancements of Windows 95 -including MAPI, Plug'n'Play, multithreading, and Unicode - by allowing for direct calls to any Windows 95 or NT API.
OCX support	Delphi 2.0 fully supports the emerging 32-bit OLE Custom Control (OCX) standard for add-in software components. Developers can add third-party or custom-made OCXs to the component palette quickly and easily, all OCX properties immediately appear in Delphi's object inspector. Because Delhpi is object oriented, you can customize OCX's via inheritance. Placing an OLE control is like placing a button on a form.
Sample OCX components	Versatile graphing, charting, spreadsheet, and spell-checking OCXs are included for immediate use in applications. (Developer and C/S only)
OLE Automation Server and controller support	Use OLE automation to create or control other applications such as Microsoft Word and Excel, Lotus 1-2-3, dBASE, and Paradox. Because Delphi 2.0 can create high performance OLE automation controllers and OLE automation servers, Delphi 2.0 will allow developers to create partitioned applications easily with Network OLE when that technology becomes available. Delphi 2.0 fully supports in-process and out-of-process local OLE automation servers and is fully compatible with the forthcoming Network OLE. Use Delphi 2.0 with the automation technology included in Visual Basic 4.0 and you get the added advantage of faster performance due to our optimizing native code compiler.

Client/Server Application Development

Features available only in Delphi Client Server Suite 2.0

32-bit SQL Links with unlimited deployment	Delphi 2.0 enhances its' suite of high-performance 32-bit SQL Link native drivers for Oracle, Interbase, Sybase, MSSQL, and Informix it introduces new 16 bit Sybase System 10 and DB2 Native drivers. Delphi Client Server Suite includes an unlimited deployment license for all drivers.
Local InterBase Server (LIBS32) 2 user license	InterBase is an SQL relational database management system (RDBMS) that provides exceptional portability and scaleability while maintaining high productivity and ease of use. InterBase offers excellent concurrency due to its Multi-generational Architecture, and an industry standard ANSI SQL 92 programming interface.
SQL Explorer	The SQL Explorer allows developers to browse and modify server-specific meta data like stored procedure definitions, triggers and index descriptions. It will enable developers to modify server specific information for Oracle, Sybase, MS SQL Server and Informix.
SQL Monitor	The SQL Monitor assists in testing, debugging and performance tuning applications. It enables developers to trace calls between the client and server and report back the amount of time spent on a single operation. The traced information surfaces problematic SQL statements and helps to optimize transactions. When you need thorough testing, simply print or save the session log.
Cached Updates	Cached Updates significantly speed server responsiveness by reducing the amount of network traffic between a client and a server. Batched and packaged, multiple communications behave as a single transaction, thereby reducing server contention and improving application performance.

Visual Query Builder	Delphi 2.0 Client/Server Suite includes a 32-bit implementation of the powerful Visual Query Builder. This graphical SQL query technology automatically generates bug-free ANSI SQL-92 commands.
Integrated Version Control	Delphi includes source code control with Intersolv's *PVCS Version Manager* to allow a team of developers to work most efficiently. Check In/ Check Out capabilities supplemented with Visual Differencing, Reporting, and Archive management assists in the development of deployable applications. PVCS, the industry leading source code control and configuration management software, helps large teams of developers work together and reduce development "chaos." This in turn reduces errors and brings product to market more quickly and more profitably.