

# BORLAND C++BUILDER

## Features and Benefits Matrix

*Borland C++Builder for Windows 95 and NT gives you the speed of visual development, the productivity of reusable components and the power of C++. C++Builder complements existing tools and code, provides scalable database connectivity, and delivers the most complete Desktop and Client/Server application development solution for C++ developers.*

### The Speed of Visual Development

<b>High productivity visual IDE</b>	C++Builder's integrated development environment provides a Visual Form Designer, Object Inspector, Component Palette, Project Manager, and fully integrated Editor and Debugger to give developers true rapid application development with complete control over their code and resources.
<b>Integrated professional C++ development features</b>	Completely integrated with its visual development features, C++Builder delivers extensive command-line tools, CPU view, and award winning Borland C++ compiler technology with incremental/smart linking for the flexibility and incredibly fast build times expected by professional programmers.
<b>Drag-and-drop design</b>	Create applications by simply dragging a component from the Visual Component Palette onto the Form Designer and setting its properties in the Object Inspector. Event handlers are automatically created as needed—and all code is completely accessible and editable.
<b>Two-Way Tools</b>	Borland C++Builder places no barriers between you and your code. With Borland Two-Way Tools, C++Builder lets you maintain control of your code by providing a seamless integration between the visual designers and the code editor. You have the flexibility to use the code editor or the visual designers interchangeably and know that the two are always synchronized.
<b>Live data</b>	C++Builder gives you "Live" data—for prototyping and testing—as you visually program the database portion of your application. No need to write a test harness or leave the visual programming environment—you see what the user will see!
<b>Properties, Methods, and Events</b>	True rapid application development (RAD) means support for object properties, methods, and events (PME). Properties allow you to easily set component characteristics such as the caption, helpcontext, or datasource. Methods, or member functions, support actions on objects like playing or rewinding a multimedia control. Events allow your code to respond to Windows messages such as button press notifications, edit changes, and control activations. In addition, events can respond to custom state changes, such as data updates for data-aware controls. Combined, a RAD PME model provides a robust, intuitive development environment for Windows programming.
<b>Visual Form Inheritance</b>	Visual Form Inheritance gives you the power of object-oriented programming in an easy to use visual tool by allowing the characteristics of any new form to be inherited from any other form. Visual Form Inheritance centralizes interface changes for a consistent look and feel, makes code easier to maintain, and reduces turn-around time for new features. A key strength of C++Builder is its 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.
<b>Prototype testing</b>	Move seamlessly from prototype to production with a single development tool! C++Builder lets you easily create prototypes based on today's user requirements that quickly become production applications with the built-in flexibility to meet tomorrow's user demands.
<b>Extensive online and printed manuals</b>	Get started fast with concise, practical, introductory guides. Master the C++Builder development environment with extensive online and printed documentation. Over 3000 pages of clear, complete coverage of the IDE, the Visual Component Library, database tools, and programming techniques! (Professional and Client/Server Suite only)
<b>Installation deployment expert</b>	C++Builder 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, C++Builder'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.
<b>Complete Source Code for the Visual Component Library</b>	In order for professional developers to more rapidly create their own reusable custom components, C++Builder Developer and Client/Server Suite include complete source code for the Borland VCL, which provides unique insight into the workings of C++Builder and its components. Source code availability lets you learn by example and reuse existing components. (Professional and Client/Server Suite only)
<b>Open Tools API</b>	C++Builder's extended Open Tools API lets you add custom development tools directly into the C++Builder

	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. (Professional and Client/Server Suite only)
<b>Advanced math library</b>	Contains over two dozen functions for statistical and financial calculations, including Future Value, Internal Rate of Return, Net Present Value, Payment for long term loans, interest rate Period Payment, and source code with pentium optimizations. (Professional and Client/Server Suite only)

## The Productivity of Reusable Components

<b>Borland's proven Visual Component Library</b>	C++Builder's award-winning Visual Component Library is an industry-standard component library with over 500,000 users today. The VCL includes over 100 reusable components that fully encapsulate the Windows 95 user interface elements and provides tabbed notebooks, data grids, and multimedia tools to help you build sophisticated applications fast. <i>Use, customize, or subclass components</i> to fit your development needs, all from within the C++Builder environment. C++Builder lets you exploit the power of object-oriented programming and leverage development resources to efficiently create robust applications.
<b>Complete suite of Windows 95 controls</b>	C++Builder includes a complete suite of Windows 95 controls: Tree Views, Trackbars, sliders, progress bars, Toolbars, Rich Edit, List Views, Image Lists header and status bar controls, and more. In addition, C++Builder includes full 32-bit support for long file names, multi-threading, and the Win95 API. Design elegant Windows 95 logo-compliant applications fast with C++Builder!
<b>Object Repository</b>	C++Builder 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 reusable tools gives developers unprecedented responsiveness to application demands. Because building on an existing foundation reduces development time, C++Builder'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.
<b>Powerful, seamless ActiveX / OCX component integration</b>	C++Builder's proven object-oriented architecture means integration of ActiveX/OCX controls is seamless. Choose from the vast selection of existing third party components from a world-wide component development community. Use, customize, or subclass components as needed—all from within C++Builder.
<b>Sample ActiveX / OCX components</b>	Versatile graphing, charting, spreadsheet, and spell-checking OCXs are included for immediate use in applications. (Professional and Client/Server Suite only)
<b>Open Internet solution: Build powerful Web-enabled applications!</b>	C++Builder supports key technologies from Microsoft, Sun, and Netscape including full support for Internet standards like ActiveX, CGI, ISAPI, WinInet, and NSAPI. And with the Borland Internet Solutions Pack, developers can apply their existing knowledge to easily build Web-enabled applications!
<b>Internet Solutions Pack</b>	Build Internet-enabled C++Builder applications with familiar rapid application development techniques—just drop a component on a form and interact with its properties and events. The eight ActiveX controls included let you build customized Web Browsers, manage Internet mail, transfer files, or connect to network newsgroups.

## The Power of C++

<b>32-bit optimizing native code compiler</b>	C++Builder's optimizing 32-bit native code compiler is built upon Borland C++'s proven compiler technology - compiler technology that ensures extremely <u>safe</u> , <u>reliable</u> , and <u>fast</u> optimizations, for tight, fast executables.
<b>Best ANSI/ISO C++ implementation with new language features</b>	Compile any ANSI C++ code including the latest ANSI features: Templates, Exceptions, Runtime Type Information (RTTI), and Namespaces. Simplify development with the Standard C++ Library. The Standard C++ Library gives you features like: string, complex, and numeric limits classes, and includes the Standard Template Library (STL) consisting of container and iterator classes. Plus, get new ANSI/ISO C++ features like bool, explicit, mutable, and typename.
<b>Incremental/smart linking for fast builds</b>	Borland's incremental/smart linker makes links faster and EXEs smaller with extreme safety and reliability. Automatically eliminate linking of unmodified source files and unused functions for the fastest possible builds and the most efficient use of your time.
<b>Clean, accessible code</b>	No hidden, hard to debug macros—C++Builder brings true rapid application development with support for properties, methods, and events to C++ developers and allows developers to program in clean, accessible C++ code.

<b>Support for Industry Standards</b>	Full support for industry standards in addition to ActiveX and OLE including COM, DCOM, MAPI and Windows Sockets (Winsock TCP/IP), ISAPI, NSAPI, ODBC, Unicode, and Multi-byte Character Sets (MBCS).
<b>Robust, just-in-time debugging</b>	Both Windows NT and Windows 95 give the integrated debugger the ability to trap application exceptions when the IDE is not running. If your application encounters an operating system exception while running, the Windows Program Registry can automatically launch the integrated debugger inside the IDE. The integrated debugger then displays the source line where the exception occurred in the Edit window, and you can begin a debugging session from where the exception occurred.
<b>CPU View</b>	C++Builder's powerful CPU View consists of five separate panes that give you a view into a specific low-level aspect of your running application. The Disassembly pane displays the assembly instructions that have been disassembled from your application's machine code along with the original program source code. The Memory Dump pane displays memory accessible to the currently loaded executable module. The Machine Stack Pane displays the current contents of the program stack. The Registers pane displays the current values of the CPU registers. The Flags pane displays the current values of the CPU flags. Each pane has an individual SpeedMenu that provides commands specific to the contents of that pane.
<b>Command line tools</b>	Because C++Builder is built on Borland's proven, leading-edge compiler technology, C++Builder supports all the command-line tools expected from a professional development environment. You can access many of the tools C++Builder includes to help you create C++ programs (also accessible from within the IDE), or exercise detailed control of the compilation and linking of your program files.

<b>Create reusable DLLs, LIBs, and standalone EXEs</b>	Application targets in C++Builder include standalone EXEs as well as DLLs and LIBs, and application types include both Windows GUI and console applications. C++Builder delivers what you need to work with your existing resources and meet the requirements of your development projects.
<b>Complete access to Win 95 and NT APIs</b>	C++Builder 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.
<b>ActiveX / OCX support</b>	C++Builder fully supports the ActiveX (OCX / OLE Custom Control) standard for add-in software components. Add third-party or custom-made ActiveX components to the component palette quickly and easily—all ActiveX properties immediately appear in C++Builder's Object Inspector. Because C++Builder is object oriented, you can customize ActiveX components via inheritance.
<b>Multi-threading support</b>	C++Builder fully supports Windows 95 and NT multi-threading capabilities. Creating more than one thread of execution helps you write more efficient code and deliver applications with improved performance.
<b>OLE Automation Server and controller support</b>	Use OLE automation to create or control other applications such as Microsoft Word and Excel, Lotus 1-2-3, dBASE, and Paradox. Because C++Builder can create high-performance OLE automation controllers and OLE automation servers, C++Builder allows developers to create partitioned applications easily with Network OLE. C++Builder fully supports in-process and out-of-process local OLE automation servers. Use C++Builder with the automation technology included in Visual Basic and you get the added advantage of faster performance due to our optimizing native-code compiler.

## Complements Existing Tools and Code

<b>RAD C++ for ALL C++ developers</b>	Borland C++Builder delivers true rapid application development to all C++ developers with the speed of visual development, the productivity of reusable components, and the power of C++. C++Builder integrates easily into development processes of developers using Borland C++ and Visual C++.
<b>Leverage your C++ skills, apps, and code</b>	Borland C++Builder compiles all ANSI/ISO code and supports all the latest ANSI/ISO language features. Everything you know and all the code you've written can immediately be used within C++Builder.
<b>Borland C++</b>	C++Builder complements Borland C++ 5.01 development with common language support, shared features, code and tool interoperability, and common companion tools. C++Builder is built on the same high-performance back-end compiler technology as Borland C++—including support for all the newest ANSI/ISO language features. Identical implementation of many features including CPU view and command-line tools makes combined use a natural fit. Common project file support and complete technical documentation and examples on code sharing and reuse are included in both products. And both C++Builder and Borland C++ integrate full development cycle support with industry-standard tools including InstallShield and PVCS.
<b>Visual C++</b>	C++Builder gives Visual C++ developers the power of C++ with the ease of VB! For front-end development and prototype testing there is no longer any need to depend on two languages—this is RAD for C++! Plus, C++Builder provides <i>compiler-independent</i> changes to MFC that work with either C++Builder or Visual C++. C++Builder compiler support for Visual C++ language extensions makes it easier than ever to use Visual C++ source code.

<b>Delphi</b>	C++Builder and Delphi share the same Visual Component Library, the same intuitive IDE, the same visual Two-Way Tools, the same third party components, and the same companion tools. C++Builder can easily use Delphi forms, components, and code. C++Builder and Delphi can share Data Modules and engine code in DLLs or OBJs. Together, C++Builder and Delphi developers are an extremely productive team—combining their efforts and code while working within the development environments best suited to their skills, preferences, and projects.
<b>PowerBuilder</b>	C++Builder Client/Server Suite provides all the features of PowerBuilder with an industry-standard language, C++. SQL connectivity, multi-tier support with data module and data dictionary capabilities, visual query creation, cached updates, data migration - all with the power and control of C++!
<b>Visual Basic</b>	C++Builder'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 are necessary. Compared to interpreted P-code, applications run 40-50x faster!
<b>Unix C++ programmers</b>	Unix programmers who need to work with Windows NT can become productive immediately with greatly reduced WinAPI knowledge requirements due to C++Builder's complete API encapsulation. Leverage your C++ knowledge and minimize the WinAPI learning curve!

## Scalable Database Connectivity

<b>Drag-and-drop database development</b>	C++Builder makes powerful database programming as simple as drag and drop. C++Builder uses the data dictionary to automatically customize the display and edit properties of your data. You select the fields and C++Builder instantly builds all the connections for a live database application.
<b>Live Data Aware controls</b>	C++Builder's data-aware components are designed for fast and flexible programming with <i>live</i> data—see what your users will see! They 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.

<b>32-bit Borland Database Engine</b>	C++Builder is built on the new 32-bit Borland Database Engine. This flexible database engine provides ODBC connectivity to all popular PC databases—Access, dBASE, Paradox, and FoxPro, <i>and</i> scales smoothly to client/ server. With features like a new Query Engine, BCD support for financial applications and low-level API support, and improved dBASE integration, BDE forms a solid foundation for all your database applications. The database engine is tightly linked into C++Builder's reusable database repository and Data Module architecture.
<b>QuickReports</b>	QuickReports lets you design reports visually with native components and the Form Designer. Reports 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, or lists. Use the powerful on-screen preview to check your results. Perform calculations like summary and field counts automatically—at any grouping level.
<b>Data Module Objects</b>	Data Module Objects act as your application's 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 GUI development for easier maintenance. As changes occur 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, C++Builder 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.
<b>Enhanced DBGrid</b>	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.
<b>Fast Filters and Smart Lookup Fields</b>	Fast Filters and Smart Lookups let C++Builder 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.
<b>Scalable Data Dictionary</b>	The Data 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 reusable across forms and applications, you can quickly establish and maintain data integrity. (Professional and Client/Server Suite only)
<b>Database Explorer</b>	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. (Professional and Client/Server Suite only)
<b>Multi-Object Grid</b>	Showing detailed views of your data has never been easier. C++Builder'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. (Professional and Client/Server Suite only)

## Complete Client/Server Application Development Solution

### *Features available only in Borland C++Builder Client/Server Suite*

<b>SQL Links with unlimited deployment</b>	C++Builder Client/Server Suite delivers high-performance 32-bit SQL Link native drivers for Oracle, Interbase, Sybase, MS SQL Server, DB2, and Informix, including an unlimited deployment license for all drivers.
<b>Local InterBase Server NT 2 user license</b>	InterBase is a SQL relational database management system (RDBMS) that provides exceptional portability and scalability 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.
<b>SQL Explorer</b>	The SQL Explorer enables developers to browse and modify server-specific meta data like stored procedure definitions, triggers and index descriptions. It allows developers to modify server-specific information for Oracle, Sybase, MS SQL Server, and Informix.
<b>SQL Monitor</b>	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.
<b>Cached Updates</b>	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.

<b>Visual Query Builder</b>	C++Builder Client/Server Suite includes the powerful Visual Query Builder. This graphical SQL query technology automatically generates bug-free ANSI SQL-92 commands.
<b>Data Migration Expert</b>	Scale networked applications and move data between formats and platforms with the Data Pump Expert.
<b>Integrated Version Control</b>	C++Builder includes source code control with Intersolv's <i>PVCS Version Manager</i> to allow a team of developers to work most efficiently. Check In/ Check Out capabilities supplemented with Visual Differencing, Reporting, and Archive management help you bring products to market more quickly and more profitably.