

Borland® Delphi™ 8

for the Microsoft® .NET Framework

Feature Matrix

	ARCHITECT	ENTERPRISE	PROFESSIONAL
High-productivity Borland® Delphi™ language development for the Microsoft® .NET Framework			
Delphi™ language RAD development for the Microsoft® .NET Framework, including VCL Forms, Windows® Forms, ASP.NET, Web Forms, Web Services, ADO.NET, and more	✓	✓	✓
Type-safe, hardware-independent, and fully object-oriented	✓	✓	✓
PE Verifiable CIL code generation	✓	✓	✓
Imports symbols directly from .NET assemblies; no header file translations or external declarations needed	✓	✓	✓
Unicode® strings	✓	✓	✓
Class variables/class static data	✓	✓	✓
Operator overloading	✓	✓	✓
Interoperability support through COM+ 1.0 and .NET Framework services with type-library-based access	✓	✓	✓
Program more simply, safely, and productively with garbage collection, structured exception handling, and type safety	✓	✓	✓
Records with methods (value types)	✓	✓	✓
Support for unsafe mode, for using pointers to manipulate memory that is not under the control of the Garbage Collector	✓	✓	✓
Nested types	✓	✓	✓
Custom attributes to mark types with information that can be recovered at runtime	✓	✓	✓
Compatible with existing Delphi source code	✓	✓	✓
Supports pointer operations such as PChar in special unsafe code blocks	✓	✓	✓
Unmanaged C style library DLL export option for use with non .NET code <i>without COM interop!</i> –Statically link or getproc with Delphi 7 or prior!	✓	✓	✓
Commercial development license for professional software sales	✓	✓	✓

Agile architecture, rapid development, and improved operations with the Microsoft® .NET Framework

Foundation Class Library (FCL) – More than 4500 classes that encapsulate rich functionality such as XML, data access, file upload, regular expressions, image generation, performance monitoring and logging, transactions, message queuing, SMTP mail, and much more!	✓	✓	✓
Common Language Runtime (CLR) – Improve application reliability, security, deployment, and performance, and run applications on high-volume, low-cost hardware	✓	✓	✓
XML SOAP Web Services – Built on XML and incorporates the latest Web Services standards to facilitate cross-platform integration	✓	✓	✓
.NET Framework remoting – simplifies working with distributed .NET objects	✓	✓	✓
Unified programming model – Leverage the same skills and technologies for both Web and desktop Windows®-based applications, including XML Web Services as well as Web and smart-client applications for devices, PCs, and servers	✓	✓	✓
Common Language Infrastructure (CLI) – Applications written in different programming languages integrate deeply with each other, allowing current development skills to carry forward without retraining	✓	✓	✓
Designer Integration – .NET Framework features were designed specifically to improve the quality of the tools that use them, such as integrated debugging and profiling. Delphi is built to take advantage of the .NET Framework	✓	✓	✓
Component Based Design – Write less code with the .NET Framework, which uses a highly componentized, plumbing-free design that enables developers to focus on writing business logic	✓	✓	✓
Direct CLR class access; no need to translate header files	✓	✓	✓
Employ Windows® Application Services with Windows Server™ 2003 and Windows® 2000 Server. For example, .NET Framework-based transactions are COM+ transactions, and all the new COM+ capabilities in Windows Server 2003 can be used from the .NET Framework	✓	✓	✓
XCOPY deployment – With .NET Framework metadata technology, installing applications is as easy as copying them into a directory	✓	✓	✓
Side-by-side execution for strong-binding to help eliminate potential versioning conflicts	✓	✓	✓
No-Touch Deployment – Smart-client applications can be deployed to client desktops through remote Web servers in the same manner as Web applications	✓	✓	✓
Managed Code Execution – With memory, threads, and processes managed by the .NET Framework, memory leaks, overwrites, and buffer overflows are eliminated	✓	✓	✓
Role-based security – provides a unified model for authorization and authentication of principals based on identity and roles	✓	✓	✓
ASP.NET Web Security supports HTTP authentication for Basic, Digest, NTLM, Kerberos, and SSL/TLS client certificates as well as Microsoft® Passport	✓	✓	✓

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authentication and Forms-based (Cookie) authentication			
Evidence-based security applies and enforces different levels of trust to all running code	✓	✓	✓

Visual Component Library (VCL) support for the Microsoft® .NET Framework

VCL for the .NET Framework – managed Visual components for rapid application development	✓	✓	✓
Standard, Data Controls, Dialogs, Internet Direct (Indy), Additional, Win32,® System, Win 3.1, Data Access, and BDE component categories	✓	✓	✓
Borland® dbExpress, and Borland® DataSnap™ (client) component categories	✓	✓	
VCL Visual Form Inheritance and Form linking to reduce coding and simplify maintenance	✓	✓	✓
Object-oriented, fully extensible and reusable component and application architecture in VCL for the Microsoft .NET Framework	✓	✓	✓
Object Repository for storing and reusing forms, Data Modules, and experts	✓	✓	✓
Code explorer for updated class reference for your application's unit files	✓	✓	✓
TDateTime extensions accelerate your date and time calculations	✓	✓	✓
SubComponent classes combine commonly mixed components for greater utility and speed the creation of user interfaces	✓	✓	✓
Conversion Unit simplifies measurement conversions	✓	✓	✓
Visual Component creation	✓	✓	✓
Modern UI features: Docking, IntelliMouse® support, minimum and maximum component sizing constraints, and border anchors in visual components	✓	✓	✓
Action List for managing and directing commonly used code in an application	✓	✓	✓
Windows Server 2003, Windows XP,™ and Windows 2000 support for Multi-Monitor, MonthCalendar, PageScroller, and Flat Scrollbars	✓	✓	✓
Support for Advanced Custom Draw functions for increased control over the Windows API	✓	✓	✓
Action MainMenu and Action ToolBar components for sophisticated and centrally controlled user interface design with dynamic Action Manager-driven UI Surfaces	✓	✓	✓
Action Manager provides central management of your actions and self-configuring dynamic user interfaces, taking the tedium out of UI design	✓	✓	✓
ActionBands™ Customization Manager gives end users total control over ActionBands UI configurations at runtime	✓	✓	✓
ControlBar for creating floating toolbars in GUI applications	✓	✓	✓
Frames for building and reusing compound components	✓	✓	✓

Accelerating the enterprise .NET development lifecycle

Accelerating model-powered development			
Designed for seamless integration of the Unified Modeling Language™ (UML™) modeling environment, development, and runtime phases with Enterprise Core Objects (ECO™) for the Microsoft .NET Framework	✓		
With the Borland® LiveSource™ model designer, visually create and edit your UML class diagrams, powered by Borland® Together® technology	✓		
Integrated XMI support is engineered to provide seamless import of UML models to ECO from popular third-party modeling tools such as Borland Together and other XMI-compliant tools	✓		
Delphi code visualization powered by Borland Together technology provides a live UML Model View of your Delphi code	✓	✓	✓
Borland Enterprise Core Objects (ECO™) runtime platform			
Instant model-powered .NET enterprise architecture and automatic object-level capabilities	✓		
ECO object-relational persistence mapper for seamless model-powered mapping of cached objects to SQL database and XML files	✓		
Object transactions ensure integrity over larger operations	✓		
Automatic object-level capabilities include caching and querying	✓		
Add object versioning to an application with the click of a button	✓		
Automatic database schema generation from UML class diagrams	✓		
Automatic database schema evolution while preserving production data	✓		
Undo/redo capabilities	✓		
ECO Space Designer for configuring UML packages, verifying models, and generating and evolving the database	✓		
Domain programming on "standard" CLR classes	✓		
Object-aware GUI through "standard" .NET data binding	✓		
UML technology: full support for class diagrams, tagged values, stereotypes, associations (aggregates, compositions), multiplicity, visibility, and mixed transient/persistent elements and classes	✓		
Runtime OCL querying and evaluation	✓		
Maintain less code with a Model Driven Architecture™ (MDA™)	✓		
True WYMIWYG (what you model is what you get) so that any model surface changes are reflected in source code and database	✓		
Easy reuse of design models and application blueprints, enabling increased productivity	✓		
Integrated support for team collaboration and requirements management			
Borland® Delphi™ LiveTeam™ source control interface is designed so projects can be seamlessly checked in and checked out of popular change management systems,	✓	✓	

Borland® Delphi™ 8 for the Microsoft® .NET Framework

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including Borland® StarTeam,™ Microsoft® Visual SourceSafe,® IBM® Rational® ClearCase,® and Concurrent Versions System (CVS)			
Support for Source Code Control (SCC) API-compliant providers	✓	✓	
Borland® StarTeam® Standard Edition 5.4 client and server automated software configuration management (SCM) system for supporting the management of assets and application lifecycle tasks	✓	✓	
Menu drop-down dedicated to integration with SCC API-compliant providers, including Borland StarTeam change management system	✓	✓	
Create new, add, delete, check-in, and check-out source archives	✓	✓	
Requirements project management integration with Borland® CaliberRM™ to monitor requirements within the development environment	✓	✓	✓
Performance testing for faster and more reliable applications			
Borland Optimizeit™ Profiler for the Microsoft .NET Framework – integrated memory, CPU, and CLR profiling	✓		
CPU and memory usage analysis for .NET managed code	✓		
High-level performance overview to understand, in real time, whether a performance issue is related to CPU, memory, or both	✓		
Memory profiler provides real-time monitoring of object allocations to understand, in real time, how the profiled program uses the CLR	✓		
CPU profiler measures pure CPU usage or time usage during a profiling session	✓		
Identify and remove performance hazards, speeding the resolution of performance issues and increasing developer productivity	✓		
Automatic highlight of relevant lines of code with the Source Code Viewer	✓		

Designed to provide superior Web development with ASP.NET

Developer productivity			
Save time with powerful and easier-to-use Borland® DB Web Controls for ASP.NET for truly data-aware Web application development that handles binding and session management	✓	✓	
Powerful yet easier-to-use WYSIWYG HTML/WebForms designer to enable rapidly building rich ASP.NET Web applications	✓	✓	✓
Advanced enterprise development tools include code behind, remote debugging, ASP.NET, and HTML code completion	✓	✓	✓
LiveTools visual development environment and dynamic integrated HTML editor built exclusively for ASP.NET	✓	✓	✓
ASP.NET server controls enable an HTML-like style of declarative programming that lets you build great pages with far less code than with classic ASP	✓	✓	✓
Displaying data, validating user input, and uploading files are amazingly made easier	✓	✓	✓
ASP.NET pages work in all browsers—including Netscape,® Opera,® AOL,® and	✓	✓	✓

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Internet Explorer®			
Unique WebForms designer supports simultaneous viewing and editing of Web Forms and HTML	✓	✓	✓
Tag Editor provides easier access to editing specific parts of an HTML or ASPX page	✓	✓	✓
Object Inspector™ for HTML/ASPX Code Editor and WebForms Designer	✓	✓	✓
Complete CodeInsight™ support, including Tag Editor and Syntax Highlighting	✓	✓	✓
WebForms Designer supports word-processing-style HTML editing	✓	✓	✓
Harness the full power of ASP.NET with Delphi by visually designing ASP.NET WebForms using common drag-and-drop or double-click techniques	✓	✓	✓
Delphi provides integrated support for designing and debugging ASP.NET Web applications	✓	✓	✓
Integrated support for the W3C® HTML Tidy formatting engine, which helps improve the readability and correctness of HTML	✓	✓	✓
IIS-independent design – build ASP applications without requiring Microsoft Internet Information Services (IIS) installed on the developer machine	✓	✓	✓
Develop ASP.NET User Controls using the Visual Designer	✓	✓	✓
Performance and scalability			
Automatically detect any changes, dynamically compile the files if needed, and store the compiled results to reuse for subsequent requests	✓	✓	✓
ASP.NET includes advanced compilation and caching features that are designed to improve performance dramatically over existing Active Server Pages (ASP) applications	✓	✓	✓
Output Caching can improve the performance and scalability of your application	✓	✓	✓
Session State lets you share session data and user-specific state values across machines in your Web environment	✓	✓	✓
Automatically detect and recover from errors such as deadlocks and memory leaks to ensure that your application is always available to your users	✓	✓	✓
Easy deployment			
Simplify installation of your application by easily copying it to the server; configuration settings are stored in an XML file within the application	✓	✓	✓
Update compiled components without restarting the Web server	✓	✓	✓
No need to migrate existing applications in order to begin using ASP.NET; ASP.NET runs on IIS side-by-side with classic ASP on Windows 2000 and Windows XP platforms	✓	✓	✓
Existing ASP applications continue to be processed by ASP.DLL; new ASP.NET pages are processed by the new ASP.NET engine	✓	✓	✓
Migrate application by application, or migrate single pages. ASP.NET even lets you continue to use your existing classic COM business components	✓	✓	✓
Microsoft® Cassini Web Server			
Integrated connectivity to the Microsoft® Cassini Web Server for hosting ASP.NET from your application	✓	✓	✓

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Customize Cassini to create a more robust Web Server based on your requirements with included Cassini sample source code	✓	✓	✓

High-performance enterprise database development

Borland® Data Providers (BDPs) for ADO.NET

Borland® Data Providers (BDP) for ADO.NET simplifies data access in .NET applications and is designed to provide seamless “switchable” enterprise licensed ADO.NET providers for Borland® InterBase® 7.1, Oracle9i™, IBM® DB2® 8.1, and Microsoft® SQL Server™ 2000	✓	✓	
BDP for ADO.NET with higher-performance, designed for seamless “switchable” local licensed database providers for InterBase 7.1, MSDE 2000, and Microsoft® Access	✓	✓	✓
BDP Open architecture exposes interfaces for independent database vendors to intergrate their own database support into the Delphi IDE	✓	✓	✓
BDP for Delphi 8 supports standard ADO.NET development via code, visual and nonvisual components, and drag-and-drop database development from the Data Explorer	✓	✓	✓
Data Explorer for browsing, adding, deleting, and modifying data connections and viewing live SQL query results	✓	✓	✓

Borland® InterBase® support

Provides a complete developer version of the InterBase high-performance, cross-platform, embeddable database that is easier and less expensive to deploy and more economical to maintain	✓	✓	✓
Windows Server 2003 certified and .NET ready	✓	✓	✓
Twenty-user development license to build and test local and remote multiuser SQL applications	✓	✓	✓

Powerful VCL .NET Database® support

DataSnap (formerly MIDAS) client and ADO.NET connector	✓		
Complete developer editions of MSDE 2000, IBM DB2, and InterBase	✓	✓	
Borland® dbExpress data access architecture includes support for MSSQL 2000, Oracle 9i, and SQL Anywhere® 9	✓	✓	
Borland® dbExpress data access architecture support for InterBase 7.1, and MySQL® 4.0.14	✓	✓	✓
BDE local database access architecture includes support for Paradox® and dBASE®	✓	✓	✓
InterBase® Express™ (IBX) applications, based on the custom data access Delphi component architectures, provide access to advanced InterBase features and offer the highest-performance component interface for InterBase	✓	✓	✓

Borland® Rapid Application Development (RAD) IDE

Two-way visual UML class designers for ECO applications	✓		
Model View for high-level visualization of your Delphi code	✓	✓	✓
Project-wide browsing to better understand your code and to navigate CLR	✓	✓	✓
OpenTools API to integrate your favorite tools for added extensibility	✓	✓	✓
AppBrowser™ code editor with symbol hyperlinks and navigation history	✓	✓	✓
State-of-the-art IDE with a fully integrated Code Editor and debugger, view history, easier-to-understand error messages, and color syntax highlighting	✓	✓	✓
Advanced Project Manager to display and organize the contents of your current project group and any project it contains, such as adding, removing, and compiling files	✓	✓	✓
Customizable Tool Palette with customizable features for fast access to components and Code Snippets, including search and color categorization	✓	✓	✓
HTML Welcome Page with fast access to the Internet and links to valuable training, application examples, resources, and recent projects	✓	✓	✓
Reflection to easily browse the metadata of any assembly	✓	✓	✓
Optimize screen real estate with fully customizable IDE layout, window docking, and floating toolbars	✓	✓	✓
Multiple custom Desktop Layout Profiles for designed to help control your development environment, including classic and debug layouts.	✓	✓	✓
Editor Key mapping to fine-tune the editor to the way you work	✓	✓	✓
Multiple undo and redo support for Editor and Form Designer with Group Undo option	✓	✓	✓
To-Do Lists for recording and displaying tasks that need to be completed for a project	✓	✓	✓
Object Inspector, with integrated help system, lets you set design-time properties, create event handlers for components, and display properties of the current HTML tag in the Code Editor	✓	✓	✓
Text Editor			
Syntax highlighting for Delphi, C#, C/C++, Visual Basic .NET, HTML, ASPX, and XML, SQL, Javascript,™ and IDL	✓	✓	✓
Code Insight™ for both Delphi and DTD described markup languages, including HTML, WML, XHTML, and XSL	✓	✓	✓
Brace/parenthesis matching and highlighting for quicker referral of code sections	✓	✓	✓
Continuous background compile with error highlighting	✓	✓	✓
Class Completion accelerates creating new object types	✓	✓	✓
Code Editor undo and redo	✓	✓	✓
Customizable editor options for particular file types	✓	✓	✓
Visible symbols toggle for white space as tabs or spaces	✓	✓	✓
Unicode support	✓	✓	✓

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Macro Quick Record Buttons record any keystroke sequence entered in the code editor for fast playback	✓	✓	✓
Code outlining and folding to conveniently collapse and expand your source code	✓	✓	✓
CodeInsight™ speed coding and reduce syntax errors			
ToolTip Symbol Insight	✓	✓	✓
Drag-and-drop Code Snippets create or use a predefined selection of commonly used code statements from the Tool Palette	✓	✓	✓
Code Templates with on-the-fly creation, modification, and exporting of templates for any supported file type	✓	✓	✓
Code Completion provides on-the-fly member lists for any object–variables, methods, properties and events–as you type	✓	✓	✓
Parameter Insight offers on-the-fly parameter hints for any method as you type	✓	✓	✓
Debugger			
Modules/Runtime scope view provides a global runtime view of the namespaces and classes available to your program, including a list of source files used to build your programs and assemblies	✓	✓	✓
Attach to process debugging for easier tracing through complex applications	✓	✓	✓
Load any .NET IL program into the debugger	✓	✓	✓
Debug views: Inspector, Thread, and Event log, Local variables view	✓	✓	✓
Remote debugging	✓	✓	✓
ToolTip Expression Evaluation for easier debugging	✓	✓	✓
DLL Debugging	✓	✓	✓
Breakpoint Actions for full control of what happens when a breakpoint is encountered, including ignoring or handling subsequent exceptions and evaluating an expression and having its result written to the event log	✓	✓	✓
Address breakpoints and break on exceptions	✓	✓	✓
Step Control for stepping at the source level and x86 instruction level, and for following the actual execution flow using “Trace to Next Source Line”	✓	✓	✓
Debug Views: Breakpoint, Source, Watch, Call Stack, and Disassembly	✓	✓	✓
Evaluate dialog shows evaluation of any valid language expression, no matter how complex, including function calls and compound expressions	✓	✓	✓

Business-to-business integration with XML and Web Services

Create ASP.NET XML Web Services and add XML Web Services running on other machines easier	✓	✓	✓
XML Web Services allow applications to communicate and share data over the Internet, regardless of operating system or programming language	✓	✓	✓
ASP.NET makes it easier to call XML Web Services from your WinForm, VCLForm,	✓	✓	✓

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or ASP.NET application – no knowledge of networking, XML, or SOAP is required			
Create XML Web Services by exposing functionality with a simple attribute declaration	✓	✓	✓
Automatic generation of the following files when creating an ASP.NET Web Service: .asmx, code-behind with .pas extension, .wsdl, .map, and compiled DLL files	✓	✓	✓
UDDI browser to visually locate and import Web Services into your application	✓	✓	✓
Support for binary attachments	✓	✓	✓

High-productivity Delphi™ language development for Win32®

Borland® Delphi™ 7 Architect: Complete design-to-deploy, MDA solution that integrates the modeling of Borland® Bold™ for Delphi, development, and deployment for your business and e-commerce solutions based on Win32.	✓		
Borland® Delphi 7 Enterprise: Use ModelMaker visual modeling based on UML technology to develop your Win32 applications efficiently, and add interactive content to Web sites by visually building dynamic server-side HTML Web applications with AtoZed Software IntraWeb. DataSnap technology now delivers royalty-free scalable middleware drivers for creating multi-tier enterprise-class database solutions.*		✓	
Borland Delphi 7 Professional: Deliver highly productive Win32 applications with new fully integrated technologies designed to enable you to add interactive content to your Web sites, deliver powerful reports, and easily navigate UDDI directories, with added Web Services failover support.*			✓

Powerful third-party added value

Delphi Partner CD			
The Delphi Partner CD includes valuable third-party components, tools, and resources	✓	✓	✓
Integrated ComponentOne® Studio Enterprise for Borland® Delphi™ 8			
Special edition of Studio Enterprise that provides a development license for 11 .NET (WinForms) and six ASP.NET (WebForms) products including: grid, reporting, charting, data, user-interface, and e-commerce for .NET and ASP.NET	✓	✓	✓
Integrated WiseOwl Demeanor for .NET, Personal Edition			
.NET Intermediate Language obfuscator for intellectual property protection for all managed code assemblies	✓	✓	✓
Obfuscate the names of your types, fields, methods, properties, and events	✓	✓	✓

* Existing owners of Delphi 7 have a special upgrade offer

Borland® Delphi™ 8 for the Microsoft® .NET Framework

	ARCHITECT	ENTERPRISE	PROFESSIONAL
Decrease application size and speed program loading	✓	✓	✓
InstallShield Express,™ Borland® Limited Edition			
Installation tool for creating setup programs (not supported on Windows 2003)	✓	✓	✓
Nevrona Tools for Borland® Delphi™ 8			
Nevrona Rave Reports® provides a powerful and flexible suite of reporting components and classes designed to scale with your applications well into the future	✓	✓	✓
Internet Direct (INDY)			
INDY – Internet Protocol Component Suite including TCP, HTTP, SMTP, POP3, and more	✓	✓	✓
Documentation, examples, and online help			
Online tutorials to ease customers into the concepts of ECO and model-driven applications and advance to more complicated features and capabilities	✓		
Comprehensive online documentation for Delphi help and the Microsoft .NET Framework SDK	✓	✓	✓
Get started quickly with direct access to example Delphi 8 applications	✓	✓	✓

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