

Borland Turbo™ Delphi® for .NET

Feature Matrix

INTEGRATED COMPILERS	PRO	EXP
High-performance Delphi managed code compiler for the Microsoft® .NET Framework Version 1.1	✓	✓
FRAMEWORKS AND SDKS	PRO	EXP
VCL.NET for rapidly building Borland Developer Studio applications for the Microsoft .NET Framework Version 1.1 — with full RAD Visual design	✓	✓
.NET Windows® Forms v1.1—with full RAD Visual design	✓	✓
ASP.NET v1.1, including Web Forms and Web Services—with full RAD Visual design	✓	✓
ADO.NET v1.1—with full RAD Visual design	✓	✓
Microsoft .NET Framework SDK v1.1	✓	✓
RAD TWO-WAY VISUAL DESIGNERS	PRO	EXP
AtoZed IntraWeb 8.0 RAD Web page development	✓	
VCL.NET forms designer	✓	✓
.NET Windows Forms designer	✓	✓
ASP.NET Web Forms and HTML designer	✓	✓
Together® powered Unified Modeling Language™ (UML®) designer	✓	✓
LANGUAGE FEATURES	PRO	EXP
“for in” loop iteration	✓	✓
Function in-lining for increased application performance	✓	✓
Delphi multi-unit namespaces	✓	✓
Virtual Library Interfaces simplify using unmanaged DLLs in .NET	✓	✓
Unicode strings	✓	✓
Operator overloading	✓	✓
Class variables/class static data	✓	✓
Automatic garbage collection	✓	✓
Nested types	✓	✓
Records with methods (value types)	✓	✓
C-style export from assemblies for direct linking with unmanaged applications, without COM.	✓	✓
Expression evaluation in compiler directives	✓	✓
Type-safe and hardware-independent	✓	✓
Import symbols directly from .NET assemblies; no header file translations or external declarations necessary	✓	✓
PROJECT SUPPORT	PRO	EXP
Delphi 1 through 2005 VCL project import into Borland Developer Studio VCL or VCL.NET Projects (does not include external 3 rd party components)	✓	✓
Delphi 8 through Delphi 2005 VCL.NET project support (does not include external 3 rd party components)	✓	✓
Microsoft Visual Basic® .NET project import/export, plus edit, compile, and debug	✓	✓
Project dependency checking	✓	✓
Project level build ordering	✓	✓
Compile or build current project and all later projects	✓	✓
PERSONAL DEVELOPER PRODUCTIVITY	PRO	EXP
Editor “Change Bar” indicates modified lines and saved session modified lines	✓	✓

Live Templates System – tab through fields and insert points of any template	✓	✓
Unified Template and Code Snippets system	✓	✓
Surround Templates – wrap “surroundable” templates around selected code or text	✓	✓
Scriptable Templates – customize the behavior, code generation, and user experience of your templates	✓	✓
“Smart” Block completion – anticipates and gracefully adds block closures as you type	✓	✓
Code navigation – quickly “hop” from method to method within your code	✓	✓
Virtual form positioner for VCL.NET designers in “docked” mode	✓	✓
Hot-key Searchable Tool Palette — find any component quickly	✓	✓
Gallery Palette — Gallery Wizards in the tool palette when you need them	✓	✓
Multi-Target Project Manager supports all language projects, even within the same Project Group	✓	✓
SyncEdit — block-edit multiple instances of a symbol simultaneously	✓	✓
Automatic multi-level local file backups	✓	✓
History Manager with file differencing and restore	✓	✓
IDE Welcome Page — with fast access to recent projects, Borland Developer Studio and Borland Developer Network RSS news feeds, documentation, demos, examples, helpful links, updates, Weblogs, and more	✓	✓
Integrated QualityCentral — submit bug reports and feature requests to Borland	✓	✓
Class navigation shortcuts	✓	✓
Structure Pane for source code	✓	✓
Syntax Highlighting Open Tools API extension with built in support for JavaScript, PHP, and INI files	✓	✓
Ability to individually customize editor options for particular file types	✓	✓
Open Tools API for code completion and symbol table queries	✓	✓
Symbol Insight — click to navigate to declarations and implementations	✓	✓
Code Insight—Faster performance and improved code and parameter completion provide on-the-fly member lists and parameter hints as you type	✓	✓
Code Insight – Code completion for DTD described markup language including HTML, WML, XHTML, and XSL	✓	✓
Editor Gutter – easier to read with less clutter	✓	✓
Code Completion for Delphi, HTML, WML, XHTML, XSL, and CSS	✓	✓
VCL.NET Object Treeview for quick navigation and manipulation of object in the VCL.NET designers	✓	✓
Class completion	✓	✓
Custom IDE desktop layout profiles with enhanced support for docked windows	✓	✓
New Component wizard for component creation and registration	✓	
Code templates — code repository makes on-the-fly code reuse fast and simple	✓	✓
To-do lists keep your development on track	✓	✓
Help Insight — convenient tooltips provide help snippets as you develop	✓	✓

REFACTORINGS

PRO EXP

Introduce Variable refactoring	✓	✓
Introduce Field refactoring	✓	✓
Inline Variable refactoring	✓	✓
Change Parameters refactoring	✓	✓
Safe Delete refactoring	✓	✓
Push Members Up / Down refactoring	✓	✓
Pull Members Up refactoring	✓	✓
Extract Superclass refactoring	✓	✓
Extract Interface refactoring	✓	✓
Move Members refactoring	✓	✓
Rename refactoring	✓	✓
Declare variable refactoring	✓	✓

Declare field refactoring	✓	✓
Extract method refactoring	✓	✓
Extract to resource string refactoring	✓	✓
Find unit/import namespace refactoring	✓	✓
Refactor driven “Find in Files”	✓	✓
BORLAND ECO™ III RAPID MODEL-DRIVEN DEVELOPEMENT	PRO	EXP
ECO™ Action Language for model-level, language independent implementation of operations and triggers	✓	✓
ECO Action Language editor	✓	✓
Overloaded OCL operations supported	✓	✓
Customizable language independent data type mapping	✓	✓
XML persistence	✓	✓
Autoform support with invoking operations	✓	✓
ListActions for buttons and menu items using OCL expression to control 'Enabled' and 'Visible'	✓	✓
UML designer	✓	✓
Code generation in background or manually invoked	✓	✓
OCL expression editor accessible from UML designer	✓	✓
OCL expression error detection	✓	✓
OCL OrderBy now supports multiple sort keys	✓	✓
Object undo/redo capabilities	✓	✓
Domain programming on “standard” .NET CLR classes	✓	✓
Object-aware Windows Forms UI development through standard .NET data binding	✓	✓
Runtime OCL querying and evaluation	✓	✓
True WYMIWYG (what you model is what you get) -- develop at a higher level, keeping application design and code synchronized	✓	✓
Unified Modeling Language (UML) technology: extensive support for class diagrams, tagged values, associations (aggregates, compositions), multiplicity, visibility, and mixed transient/persistent elements and classes	✓	✓
TOGETHER® MODELING	PRO	EXP
Full two-way LiveSource® class diagrams	✓	✓
OCL 2.0 support	✓	✓
"UML in Color" profile	✓	✓
Diagram hyperlinking and annotations	✓	✓
Diagram printing	✓	✓
DEBUGGING	PRO	EXP
Full-featured .NET debugger	✓	✓
Expandable tooltip expression evaluation	✓	✓
Expandable watches	✓	✓
Expandable local variables view	✓	✓
Selective symbol table loading	✓	✓
Close implicitly opened files after debugging	✓	✓
Multi-select and copy to clipboard support in CPU view	✓	✓
Ctrl-Click in editor gutter to enable/disable breakpoints	✓	✓
Sort by load order in Modules view	✓	✓
App Domain load/unload events shown in event log	✓	✓
Exception notification dialog: Break/Continue buttons, "Ignore exception type" checkbox, and .NET exceptions now display the exception message	✓	✓

Remote debugging	✓	
Thread view displays status on all processes and threads under debugger control	✓	✓
CPU view for low-level debugging	✓	✓
Evaluator	✓	✓
Watch view supporting in place editing, checkbox enable/disabling, and the watch names separated from the values with columns	✓	✓
Multi-tab watch view for logically grouping variables	✓	✓
.NET AppDomain support in Modules View	✓	✓
ASP.NET debugging	✓	✓
Breakpoint view with toolbar, in-place editing, and enable/disable checkbox	✓	✓
Multi-process debugging for easy tracing through complex applications	✓	✓
Attach to and debug any process	✓	✓
Detach from any process	✓	✓
Run until return	✓	✓
Advanced breakpoints with Tooltips, actions, and groups for complete debugging control	✓	✓
Debug Inspector for easily monitoring properties while debugging	✓	✓
Event log view	✓	✓
INTEGRATED UNIT TESTING	PRO	EXP
Integrated unit testing with both DUnit and NUnit testing frameworks	✓	✓
Unit test wizards for quick and easy unit test and unit test project creation	✓	✓
Integrated project and project manager support for unit tests	✓	✓
Unit test code generation with full code to invoke each method	✓	✓
Update existing unit test cases with new test methods	✓	✓
Execute unit tests from project manager	✓	✓
DATABASE DEVELOPMENT AND CONNECTIVITY: VCL.NET	PRO	EXP
TClientDataSet actions	✓	✓
dbExpress local data connectivity to InterBase® v7.5 and v7.5.1	✓	✓
dbExpress local data connectivity to MySQL 4.0.24	✓	✓
Borland dbGO for ADO connectivity for .NET (MDAC 2.8)	✓	✓
BDE support for dBASE and Paradox on VCL .NET	✓	✓
InterBase Express components for VCL.NET	✓	
DATABASE DEVELOPMENT AND CONNECTIVITY: ADO.NET	PRO	EXP
Connection Pooling	✓	✓
BDP SQL Tracing	✓	✓
BdpDataAdapter.AutoUpdate() Error reconcile	✓	✓
DataHub.ApplyChanges() Error reconcile	✓	✓
DataMigration – customizable SQL type mapping	✓	✓
ISQLSchemaCreate QuoteObjects support for CREATE/ALTER/DROP	✓	✓
ISQLExtendedMetaData – related objects and ForeignKey for InterBase	✓	✓
MySQL 4.0.24 BDP provider	✓	✓
Design-time stored procedure testing for all BDP supported databases	✓	✓
Schema design: Create/alter/drop tables in any BDP supported database	✓	✓
BDP ADO.NET local data connectivity to InterBase v7.5	✓	✓
BDP ADO.NET local data connectivity to MSDE 2000	✓	✓

BDP ADO.NET local data connectivity to Microsoft Access	✓	✓
DATABASE EXPLORER	PRO	EXP
Drag and Drop from the dbExpress node into VCL.NET Forms	✓	✓
Multiple SQL windows	✓	✓
Browse database objects using BDP and dbExpress	✓	✓
Data migration between any BDP supported databases	✓	✓
Drag-and-drop database objects from BDP nodes into WinForms or WebForms	✓	✓
INCLUDED DATABASES	PRO	EXP
InterBase 7.5.1 Developer Edition—up to 20 users and 80 logical local connections	✓	✓
Multiple Instance support allows multiple versions of InterBase to run on the same machine simultaneously	✓	✓
InterBase Enhanced SQL support language construct support for CASE, COALESCE, and NULLIF	✓	✓
InterBase Global Temporary Tables transparently manage all namespaces, making development more easily managed once the temporary table is declared to the database schema	✓	✓
InterBase embedded database user authentication for unique user account management for multiple embedded InterBase applications	✓	✓
InterBase SMP scalability using advanced technologies such as spinlocks and thread-private latch caches for optimized processor utilization and increased throughput	✓	✓
InterBase IBConsole with new streamlined GUI, performance, and stored procedure monitoring and trigger cache management	✓	✓
Microsoft SQL Server Desktop Engine 2000 (MSDE 2000) support	✓	✓
Borland Database Engine for dBASE and Paradox	✓	✓
REPORTING SOLUTIONS	PRO	EXP
Rave Reports Borland Edition for VCL .NET	✓	
ADDITIONAL COMPONENTS AND TOOLS	PRO	EXP
glyFX Icon Library – Borland Edition	✓	✓
XML\SOAP WEB SERVICES DEVELOPMENT	PRO	EXP
Easily create .NET XML/SOAP Web Services	✓	✓
UDDI Web Services import to add SOAP/XML into your applications	✓	✓
REMOTING AND APPLICATION CONNECTIVITY	PRO	EXP
SOAP Web Services development for .NET	✓	✓
DCOM support	✓	✓
.NET remoting	✓	✓
WEB/INTERNET DEVELOPMENT: VCL.NET	PRO	EXP
IntraWeb 8.0 WYSIWYG RAD Web page development	✓	
Indy v10 components with more than 120 Internet protocols and Internet standards including TCP, UDP, ICMP, SMTP, POP3, IMAP4, HTTP, NNTP, FTP, IPv6, and much more	✓	
WEB DEVELOPMENT: ASP.NET	PRO	EXP
HTML/ASP.NET source preservation	✓	✓
Includes pre-built Microsoft Cassini debugging Web server	✓	✓
ASHX HTTP Handler wizard	✓	✓

View page in browser – configurable to your browser of choice	✓	✓
HTML/ASP ErrorInsight including Tag Editor support	✓	✓
Integrated connectivity to the Cassini Web Server for hosting ASP.NET from your application	✓	✓
HTML/ASP.NET Tag Editor.	✓	✓
Deployment Manager support for external files and assembly references	✓	✓
IDE and deployment support for Cassini	✓	✓
Customize Cassini to create a more robust Web Server based on your requirements with included Cassini sample source code	✓	✓
Tag Editor provides easy access to editing specific parts of an HTML or ASPX page	✓	✓
Tag Editor includes full Code Insight support	✓	✓
HTML/ASP Structure View	✓	✓
In-place Template Editing	✓	✓
Cascading Style Sheets (CSS) Syntax Highlighting	✓	✓
Cascading Style Sheets (CSS) Code Completion	✓	✓
Select All controls	✓	✓
Rubber-band selection of controls within the designer (shift drag)	✓	✓
HTML file-error handling	✓	✓
HTML Formatter with code preservation	✓	✓
WYSIWYG HTML/Web Forms designer — powerful and easy to rapidly build rich ASP.NET Web applications	✓	✓
Advanced enterprise development tools include code behind, ASP.NET, and HTML code completion	✓	✓
ASP.NET server controls enable an HTML-like style of declarative programming that builds pages with far less code than with classic ASP	✓	✓
ASP.NET pages work in all browsers—including Netscape®, Opera®, AOL®, and Microsoft Internet Explorer	✓	✓
Unique Web Forms designer supports simultaneous viewing and editing of Web Forms and word-processing-style HTML editing	✓	✓
Borland Object Inspector for HTML/ASPX Code Editor and Web Forms Designer	✓	✓
Visually design ASP.NET Web Forms using common drag-and-drop or double-click techniques	✓	✓
Integrated debugging support 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 IIS installed on the developer machine	✓	✓
ASP.NET user control development using the visual designer	✓	✓
Output caching increases the performance and scalability of your application	✓	✓
Session state management lets you share session data and user-specific state values across machines in your Web environment	✓	✓
Automatically detects and recovers from errors such as deadlocks and memory leaks to ensure that your application is always available to your users	✓	✓
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	✓	✓
VISUAL COMPONENT LIBRARY FOR .NET (VCL.NET)	PRO	EXP
Live Designer Guidelines with “smart” drag and snap-to lines	✓	✓
Margin and Padding properties for all VCL.NET controls	✓	✓
Text baseline alignment	✓	✓
Extensible user registerable guidelines	✓	✓
VCL.NET Flow Panel – HTML style form layouts with Autopositioning	✓	✓
VCL.NET Grid Panel – table style form layouts with Autopositioning and Autosizing	✓	✓

VCL.NET System Tray Component – easily create Windows Tray applications	✓	✓
IntelliMouse® “pan and scroll” support for VCL.NET controls	✓	✓
TToolBar and TControlbar– updated look and feel	✓	✓
Embedded Type Library Editor with message view error reporting	✓	✓
Windows XP themes	✓	✓
Windows XP theme support for Action Manager	✓	✓
TDockTabSet tabbed docking component with autohide	✓	✓
TCategoryButtons — collapsible button categories just like those in the new Tool palette	✓	✓
TButtonGroup for combining buttons into a group	✓	✓
TPopUpActionBar — pop-up version of TActionMainMenuBar	✓	✓
TOpenTextFileDialog and TSaveTextFileDialog with user-selectable text encoding method	✓	✓
TListConnector — .NET TDataSet descendent that can consume data from .NET objects that implement IList, IBindingList	✓	✓
VCL for the .NET Framework 1.1 — managed visual components for rapid application development	✓	✓
Standard, Data Controls, Dialogs, Additional, Win32, System, Win 3.1, Data Access, and BDE component categories	✓	✓
Internet Direct (Indy) component category	✓	
Visual Form Inheritance and Form linking to reduce coding and simplify maintenance	✓	✓
Object-oriented and reusable component and application architecture	✓	✓
Fully extensible application architecture	✓	
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 conversion	✓	✓
Visual component creation and registration	✓	
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	✓	✓
MICROSOFT .NET FRAMEWORK 1.1	PRO	EXP
Foundation Class Library (FCL) v1.1 — 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) v1.1 — 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 1.1 remoting simplifies working with distributed .NET objects	✓	✓
Unified programming model—leverage the same skills and technologies for both Web (ASP.NET) and desktop Windows-based applications (Windows Forms), including XML Web Services as well as Web and smart-client applications for devices, PCs, and servers	✓	✓
Common Language Infrastructure (CLI)—seamless language interoperability between code written in Delphi, C#, Visual Basic [®] , .NET, and other CLI-compliant languages	✓	✓
.NET Designer Integration—.. Delphi is built to take advantage of the .NET Framework 1.1	✓	✓
Component based design — similar to the VCL, the .NET Framework 1.1 uses a component-driven, plumbing-free design that requires less code and encourages reuse	✓	✓
Direct CLR class access; no need to translate header files	✓	✓
Employ Windows Application Services with Windows Server 2003, Windows 2000 Server, and COM+	✓	✓
Microsoft XCopy deployment — easy deployment leveraging the .NET Framework 1.1 metadata technology	✓	✓
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 1.1, 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 authentication and forms-based (cookie) authentication	✓	✓
Evidence-based security applies and enforces different levels of trust to all running code	✓	✓

About Borland

Founded in 1983, Borland Software Corporation (NASDAQ: BORL) is the global leader in platform independent solutions for Software Delivery Optimization. The company provides the software and services that align the people, process, and technology required to maximize the business value of software. To learn more about delivering quality software, on time and within budget, visit <http://www.borland.com>.

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