



# DELPHI<sup>®</sup> 2009

## Feature Matrix

	Architect	Enterprise	Professional
<b>INTEGRATED COMPILERS</b>			
Enhanced in 2009! High-performance 32-bit optimizing Delphi <sup>®</sup> native code compiler, including High performance x86 Assembler - 32-bit inline assembler supporting the Intel <sup>®</sup> x86 instruction set (including Intel Pentium <sup>®</sup> Pro, Pentium III, Pentium 4, Intel MMX, <sup>™</sup> SIMD, Streaming SIMD Extensions, SSE, SSE2, SSE3, SSE 4.1, SSE 4.2, AMD SSE4A and AMD <sup>®</sup> 3DNow! <sup>®</sup>	>>	>>	>>
<b>INTEGRATED FRAMEWORKS, DESIGNERS, SDKS AND INSTALLERS</b>			
Enhanced in 2009! VCL (Visual Component Library) for rapidly building Microsoft Windows applications now includes seamless Windows Vista support and XP and 2000 graceful fallback compatibility	>>	>>	>>
Microsoft Win32 SDK with support for Windows Vista APIs	>>	>>	>>
VCL forms designer with live Snap-to hints and layout guidelines	>>	>>	>>
Together <sup>®</sup> powered Unified Modeling Language <sup>®</sup> (UML <sup>®</sup> ) designer	>>	>>	>>
Added in 2007! InstallAware installer technology allows for on the fly updating. IDE can automatically check for updates	>>	>>	>>
<b>INTEGRATED BUILD TOOLS AND PROJECT SUPPORT</b>			
Enhanced in 2009! Project Manager to display and organize the contents of your current project group and any project it contains	>>	>>	>>
New in 2009! Project Manager view menu for directory (nested), directory (flat) and list view of files in a project	>>	>>	>>
New in 2009! Compiler option to treat warnings as errors	>>	>>	>>
Added in 2007! Flexible build system leveraging MSBuild with identical build process from the IDE or command line	>>	>>	>>
Delphi 1 through 2007 project import	>>	>>	>>
Enhanced in 2009! Build Configurations provide flexibility to organize multiple build settings for all compiler and linker options	>>	>>	>>
New for Delphi in 2009! Named option sets to save and apply build configurations to any project	>>	>>	>>
New in 2009! Share option-sets between build configurations and between projects	>>	>>	>>
Added in 2007! Multi-select files in the Project Manager	>>	>>	>>
Added in 2007! File Browser - Windows shell integrated into the IDE	>>	>>	>>
Added in 2007! Build Events for pre-build and post-build on project and file levels	>>	>>	>>

	Architect	Enterprise	Professional
Added in 2006! Project dependency checking	>>	>>	>>
IDE Studio personality indicator - shows which is active when multiple languages are available	>>	>>	>>
Project level build ordering	>>	>>	>>
Build/Make from here - Make or build current project and all later projects	>>	>>	>>
Additional Command Line tools include Microsoft Resource Compiler, TDump utility to structurally analyze EXE, OBJ, and LIB files, GREP tool, and MAKE tool	>>	>>	>>
<b>LANGUAGE AND RUNTIME LIBRARY FEATURES</b>			
New in 2009! UnicodeString type as the default string type	>>	>>	>>
New in 2009! TStringBuilder for easier and faster string concatenation	>>	>>	>>
New for Win32 in 2009! Generics with full RTL list and collection support	>>	>>	>>
New in 2009! TObject now contains virtual methods ToString, GetHashCode, and Equals.	>>	>>	>>
New in 2009! Anonymous methods	>>	>>	>>
New in 2009! Exit procedure takes optional Result parameter	>>	>>	>>
Expression evaluation in compiler directives	>>	>>	>>
Create reusable native 32-bit dynamically linked libraries (.DLL), COM controls (.OCX), and standalone executables	>>	>>	>>
Custom variants with support of your own data types, complex numbers, safe arrays, and passing variants through data sets	>>	>>	>>
Expanded variant support for Int64 and the unsigned types	>>	>>	>>
<b>PERSONAL DEVELOPER PRODUCTIVITY</b>			
Enhanced in 2007! Significant all-around IDE performance improvements	>>	>>	>>
New in 2009! Resource Manager greatly simplifies the addition of resources to projects	>>	>>	>>
New in 2009! Class Explorer gives configurable hierarchical view of class libraries throughout project. Also enables fast navigation to declarations and implementations, as well as easy addition of fields and methods.	>>	>>	>>
Added in 2006! Live Code Templates - dynamic scriptable templates streamlines coding complex and common structures and operations. Create or customize code templates and control the behavior, code generation, and user experience of your templates. Surround Templates that can wrap around selected code or text.	>>	>>	>>



# CODE GEAR DELPHI® 2009 Feature Matrix

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Added in 2006! Editor "Change Bar" indicates modified lines and saved modified lines	>>	>>	>>
Added in 2006! "Smart" Block completion - anticipates and gracefully adds block closures as you type	>>	>>	>>
Added in 2006! Virtual form positioner for VCL designers in "docked" mode	>>	>>	>>
Added in 2006! Hot-key Tool Palette w/ Incremental search – find any component quickly	>>	>>	>>
Added in 2006! Gallery in Tool Palette - find gallery wizards when you need them	>>	>>	>>
Multi-Target Project Manager supports all language projects, even within the same Project Group	>>	>>	>>
Added in 2006! SyncEdit – block-edit multiple instances of a symbol simultaneously	>>	>>	>>
Added in 2006! History Manager with automatic multi-level file backups, file differencing and restore	>>	>>	>>
IDE Welcome Page – with fast access to recent projects, CodeGear Developer Network RSS news feeds, documentation, helpful links, updates, Weblogs, and more	>>	>>	>>
Integrated QualityCentral – submit bug reports and feature requests to CodeGear	>>	>>	>>
Structure Pane that displays hierarchical view of source code and provides a VCL Object Treeview for quick navigation and manipulation of objects in the VCL designer	>>	>>	>>
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	>>	>>	>>
Full-featured Open Tools API allows for customization of the IDE through wizards and experts.	>>	>>	>>
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 C/C++, Delphi, HTML, XHTML, XSL, and CSS	>>	>>	>>
Class completion	>>	>>	>>
Custom IDE desktop layout profiles with enhanced support for docked windows	>>	>>	>>



	Architect	Enterprise	Professional
To-do lists keep your development on track	>>	>>	>>
Help Insight - convenient tooltips provide help snippets as you develop	>>	>>	>>
<b>INTERNATIONAL DEVELOPMENT</b>			
New in 2009! Unicode-enabled development environment	>>	>>	>>
New in 2009! Unicode-enabled VCL	>>	>>	>>
New in 2009! UnicodeString type	>>	>>	>>
Enhanced in 2009! Resource DLL Wizard to create Win32 resource DLLs for localization	>>	>>	>>
Enhanced in 2009! Integrated Translation Environment (ITE) to view and edit VCL forms and resource strings	>>	>>	>>
Enhanced in 2009! External Translation Manager (ETM) to view and edit language resource files outside the IDE	>>	>>	>>
Enhanced in 2009! Translation Repository provides a database for translations that can be shared across projects	>>	>>	>>
<b>REFACTORINGS</b>			
Includes the following refactorings: Rename, Introduce Variable, Introduce Field, Inline Variable, Change Parameters, Safe Delete, Push Members Up / Down, Pull Members Up, Extract Superclass, Extract Interface, Move Members, Declare variable, Declare field, Extract method, Find unit/import namespace, Extract to resource string	>>	>>	>>
Refactor driven "Find References"	>>	>>	>>
Refactor driven "Find in Files"	>>	>>	>>
<b>TOGETHER® UML MODELING</b>			
Together® Code Visualization—at any time, get a UML® model view of your source code	>>	>>	>>
Diagram printing	>>	>>	>>
Full two-way LiveSource™ class diagrams	>>	>>	>>
Added in 2006! OCL 2.0 support	>>	>>	>>
Added in 2006! "UML in Color" profile	>>	>>	>>
Added in 2006! Diagram hyper-linking and annotations	>>	>>	>>
Sequence diagrams	>>	>>	>>
Collaboration diagrams	>>	>>	>>



	Architect	Enterprise	Professional
State charts	>>	>>	
Deployment diagrams	>>	>>	
Use case diagrams	>>	>>	
Activity diagrams	>>	>>	
Component diagrams	>>	>>	
Documentation generation	>>	>>	
Added in 2006! Audits and metrics	>>	>>	
Added in 2006! Design Patterns support	>>	>>	
Added in 2006! XMI 1.1 Import/Export	>>	>>	
Added in 2006! Import model from Rational® Rose (mdl import)	>>		
Added in 2006! Language neutral UML 1.5 modeling	>>		
Added in 2006! Language neutral UML 2.0 modeling	>>		
Added in 2006! Transformation to source code	>>		
<b>INTEGRATED DEBUGGING</b>			
Full-featured debugger with color syntax highlighting	>>	>>	>>
New in 2009! Support for Wait Chain Traversal in Vista and Windows 2008	>>	>>	>>
Added in 2007! Disassembly pane has "Show Opcodes" and "Show Addresses" local menu items	>>	>>	>>
Added in 2007! New Debugger Options: "Scroll new events into view" and "Ignore non-user breakpoints"	>>	>>	>>
Added in 2007! Call Stack View shows a glyph indicating if the frame has debug info	>>	>>	>>
Added in 2007! CPU view panes can be opened individually outside of an editor tab	>>	>>	>>
Added in 2007! Call Stack view now automatically syncs the Locals view when you double click an item	>>	>>	>>
Added in 2007! Evaluator tooltip hints go transparent when the CTRL key is pressed, allowing you to see through them to the editor	>>	>>	>>
Expandable tooltip expression evaluation	>>	>>	>>
Expandable watches	>>	>>	>>



	Architect	Enterprise	Professional
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	>>	>>	>>
Set Next Statement local menu item in editor	>>	>>	>>
Exception notification dialog: Break/Continue buttons, "Ignore exception type" checkbox	>>	>>	>>
Modules View sorting	>>	>>	>>
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	>>	>>	>>
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	>>	>>	>>
Breakpoint Data Aware Triggers	>>	>>	>>
Debug spawned processes	>>	>>	>>



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Debug Inspector for easily monitoring properties while debugging	>>	>>	>>
Event log view	>>	>>	>>
<b>INTEGRATED UNIT TESTING</b>			
Integrated unit testing with the DUnit testing framework	>>	>>	>>
Unit test wizards for quick and easy unit test and unit test project creation	>>	>>	>>
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	>>	>>	>>
<b>DOCUMENTATION</b>			
<b>Updated and Enhanced in 2007!</b> Completely revamped help system with class structure diagrams and thorough cross-linking	>>	>>	>>
<b>Enhanced!</b> Filtering and optimized searches. Integrated help system with MS Help 2	>>	>>	>>
<b>DATABASE APPLICATION DEVELOPMENT AND CONNECTIVITY</b>			
<b>DBEXPRESS</b>			
<b>Added in 2007!</b> dbExpress™ 4 database connectivity framework with connection pooling, tracing, and delegate drivers	>>	>>	>>
<b>Added in 2007!</b> Build delegate drivers to place your code between the application and the actual driver. Provide pre- and post-processing of all public methods and properties of the dbExpress 4 framework. Sample delegate drivers included	>>	>>	>>
<b>Enhanced in 2009!</b> dbExpress server connectivity to CodeGear InterBase® 2007 and 2009	>>	>>	
dbExpress server connectivity to Oracle® 10g	>>	>>	
dbExpress server connectivity to Microsoft SQL Server™ 2000 and 2005	>>	>>	
dbExpress server connectivity to Informix® 9x	>>	>>	
dbExpress server connectivity to IBM DB2® 8.x	>>	>>	
dbExpress server connectivity to SQL Anywhere® 9	>>	>>	
dbExpress server connectivity to Sybase® 12.5	>>	>>	
dbExpress server connectivity to MySQL 4.1 and 5.0 (5.0 Driver is Unicode enabled)	>>	>>	



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Updated! dbExpress local connectivity to InterBase® and MySQL	>>	>>	>>
TClientDataset for managing and manipulating datasets in-memory	>>	>>	>>
dbGO™ for ADO connectivity for Win32 (MDAC 2.8)	>>	>>	>>
<b>DATASNAP</b>			
Updated and Enhanced in 2009! Create multi-tier database applications with DataSnap. Create middle tier application servers and connect to them from thin clients. Place business rules and write stored procedure code in Delphi on the middle tier.	>>	>>	
New in 2009! New ServerMethods give complete control over functionality of middle tier. Call procedures from server as if the code were right on the client. Continue to use familiar IAppServer interface while expanding power of application servers. No COM dependencies in new DataSnap framework	>>	>>	
Royalty Free! MIDAS/DataSnap™ multi-tier deployment license	>>	>>	
<b>BORLAND DATABASE ENGINE</b>			
BDE support for dBASE® and Paradox® on VCL	>>	>>	>>
Updated in 2009! InterBase Express components	>>	>>	>>
<b>DATABASE TOOLS</b>			
Data Explorer to add and manage database connections and browse database schema	>>	>>	>>
Added in 2006! Drag and Drop from the dbExpress node in the Data Explorer into VCL Forms to speed development	>>	>>	>>
SQL console views for running queries and viewing results on any dbExpress 4 supported database	>>	>>	>>
Navigate to Delphi code-based stored procedures from Data Explorer	>>	>>	>>
Added in 2007! Visual query builder	>>	>>	>>
<b>INCLUDED DATABASES</b>			
New in 2009! InterBase 2009 Developer Edition—up to 20 users and 80 logical local connections	>>	>>	>>
Added in 2007! Blackfish™ SQL with local connectivity, 1 user (4 connections), 512MB database size, 512MB RAM usage			>>
Added in 2007! Blackfish SQL with remote connectivity, 5 users (20 connections), 2GB database size, 1GB RAM usage	>>	>>	





	Architect	Enterprise	Professional
Borland Database Engine for dBASE and Paradox	>>	>>	>>
<b>REPORTING SOLUTIONS</b>			
Updated! Nevrona Rave Reports® 7.6 CodeGear Bundled Edition	>>	>>	>>
<b>ADDITIONAL COMPONENTS AND TOOLS</b>			
glyFX Icon Library - CodeGear Edition	>>	>>	>>
Updated in 2007! InstallAware Express CodeGear Edition	>>	>>	>>
Updated! TeeChart 8.0 charting components	>>	>>	>>
<b>XML/SOAP WEB SERVICES DEVELOPMENT</b>			
BizSnap™ XML Transformation Tools and Components to easily build data exchanges between different XML formats and between XML and datasets	>>	>>	
BizSnap native Delphi XML bindings to simplify XML programming - access XML documents as Delphi objects	>>	>>	
Easily create XML/SOAP Web Services	>>	>>	>>
<b>BIZSNAP WEBSERVICES™</b>			
Added in 2007! WSDL External Schema support	>>	>>	>>
Added in 2007! SOAP runtime support for optional and unbounded elements	>>	>>	>>
Added in 2007! SOAP features updated to support Amazon, eBay, MapPoint, and more	>>	>>	>>
Build server-side XML Web Services	>>	>>	>>
Build client-side XML Web Services	>>	>>	>>
<b>WEB APPLICATION DEVELOPMENT</b>			
<b>VCL FOR THE WEB (INTRAWEB)</b>			
Updated in 2009! VCL for the Web - Complete RAD Web Application Framework with AJAX, Silverlight and full WYSIWYG VCL based Web page design w Server side event handling - build Web apps like desktop VCL! 5 connection limit in Professional edition.	>>	>>	Limited
<b>INTERNET EXPRESS (INDY)</b>			
Internet Express (INDY) components with more than 120 Internet protocols and Internet standards including TCP, UDP, ICMP, SMTP, POP3, IMAP4, HTTP, NNTP, FTP, IPv6, and much more	>>	>>	>>
<b>WEBSNAP™ / WEB BROKER</b>			



	Architect	Enterprise	Professional
WebSnap™ component-based framework for developing Web Server applications (deprecated)	>>	>>	
Server-side scriptable Web page components to easily interface WebSnap objects with Web site developer teams and scripters	>>	>>	
Server-side scripting in WebSnap with JavaScript™ and VBScript	>>	>>	
<b>REMOVING AND APPLICATION CONNECTIVITY</b>			
<b>New in 2009!</b> Fully re-architected COM/ActiveX support now enables transparent access to IDL and code. Support is now source control friendly and allows total control over implementation of COM and ActiveX objects.	>>	>>	>>
<b>Updated for 2009!</b> Wizards support wrapping existing VCL components as ActiveX controls	>>	>>	>>
<b>Added in 2006!</b> Import .NET assemblies as COM objects in Win32 VCL applications	>>	>>	>>
SOAP Web Services development	>>	>>	>>
DCOM support	>>	>>	>>
DataSnap/MIDAS multi-tier database application framework	>>	>>	
Advanced Type Library Editor now manages IDL, making COM development completely transparent.	>>	>>	>>
Support for Automation Object event handling	>>	>>	>>
COM Object Wizard	>>	>>	>>
Microsoft ActiveX® Control Data binding	>>	>>	>>
Import COM servers as components to develop visually	>>	>>	>>
<b>VISUAL COMPONENT LIBRARY (VCL)</b>			
VCL Form Designer to visually build native Windows applications	>>	>>	>>
<b>New!</b> Ribbon Controls components for creating Microsoft Office style ribbon interfaces including ribbon, ribbon application menu bar, combobox, toolbar and tips	>>	>>	>>
<b>New in 2009!</b> New VCL Components: TCategoryPanelGroup, TButtonEdit, TLinkLabel, TBalloonHint	>>	>>	>>
<b>New in 2009!</b> Enhancements to existing controls: TButton, TEdit, TProgressBar, TListView, TTreeView, TRichEdit, TImageList	>>	>>	>>



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New in 2009! Full support for PNG image format in TImage and TImageList	>>	>>	>>
New in 2009! TImageList now supports all graphics formats contained in TImage	>>	>>	>>
Enhanced in 2009! Import Component wizard to import a type library, ActiveX control or .NET Assembly	>>	>>	>>
Enhanced in 2009! New Component wizard to create the unit for a new component	>>	>>	>>
Object-oriented, fully extensible and reusable component and application architecture	>>	>>	>>
Visual Form Inheritance and Form linking to reduce coding and simplify maintenance	>>	>>	>>
Frames for building and reusing compound components	>>	>>	>>
Object Repository for storing and reusing forms, Data Modules, and experts	>>	>>	>>
Object Inspector to set component properties and events	>>	>>	>>
Added in 2007! Windows Vista look and feel including Windows Aero glassing effects	>>	>>	>>
Added in 2007! Windows XP and Vista theming of applications	>>	>>	>>
Standard component including frame, edit, menu, button, label, checkbox, list box, combo box, panel and action list	>>	>>	>>
Additional components including graphical buttons, image, shape, scroll box, splitter, buttoned edit, tabs, panels, action toolbar, and color map	>>	>>	>>
Win32 components including page control, image list, rich edit, progress bar, date time, calendar, toolbar, tree view and list view	>>	>>	>>
System components including timer, paint box, media player, OLE container and DDE	>>	>>	>>
Win 3.1 controls including tabbed notebook, file list box, directory list box, drive combo box, filter combo box and db lookup	>>	>>	>>
Dialog components including open, save, open/save picture, open/save text, font, color, print, printer setup, find, replace and page setup	>>	>>	>>
Data Access Controls including datasource, client dataset, dataset provider and XML transform	>>	>>	>>
Data Controls including dbgrid, navigator, text, edit, memo, image, listbox, combo box, checkbox, radiogroup, lookup and rich edit	>>	>>	>>
dbExpress components including SQL connection, SQL dataset, SQL query, SQL Stored Proc, SQL table, SQL server method, SQL monitor and simple dataset	>>	>>	>>
Internet components including web browser, dispatcher, page producer, dataset, query, page, table, TCP client and server and XML document	>>	>>	>>



	Architect	Enterprise	Professional
Added in 2007! Vista Dialog components including file open, file save and task	>>	>>	>>
DataSnap Client components including DCOM connection, socket connection, shared connection, local connection, web connection, object broker and connection broker	>>	>>	>>
Sample components including gauge, color grid, spin button, spin edit, directory outline and calendar	>>	>>	>>
Indy components with more than 120 Internet protocols and Internet standards including TCP, UDP, ICMP, SMTP, POP3, IMAP4, HTTP, NNTP, FTP, IPv6, and much more	>>	>>	>>
WebSnap components including adapters, values lists, dispatchers, file service, sessions service, web user list and page producers	>>	>>	>>
Web Services components including HTTP, SOAP, and WSDL	>>	>>	>>
dbGo components including ADO connection, command, dataset, table, query and stored procedure	>>	>>	>>
Updated! VCL for the Web components including Silverlight, Standard, Control, Standard 3.2, WAP, Data, Client Side, Data 3.2, Data WAP	>>	>>	>>
DataSnap Server components including TCP server transport, server and server class	>>	>>	>>
Updated! TeeChart Standard components including chart, DBchart, dataset, buttons, draw, combo and image	>>	>>	>>
Updated! InterBase Express (IBX) components	>>	>>	>>
<b>DATABASE MODELING AND DESIGN</b>			
ER/Studio Developer Edition, a database modeling and design tool to better understand database structures	>>		
Highly productive model-driven database design environment - advanced graphics, multilevel design capabilities, automated and custom transformation, denormalization mapping, extensible automation and undo/redo	>>		
Database lifecycle support - forward engineering, reverse engineering to construct a model from an existing database or schema, and database modification	>>		
Enterprise model management - advanced compare and merge, submodel management, "where used" analysis and XML schema generation	>>		
Data warehouse and integration support - data lineage and dimensional modeling	>>		
Quality database design - model completion validation, automatic migration of foreign keys and capacity planning	>>		
Security design and assessment - including data classification and permission management	>>		



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Database modeling and design for Oracle, Microsoft SQL Server, DB2 LUW, InterBase, MySQL, Informix, Sybase ASA, Sybase ASE, ODBC, and ANSI SQL	>>		
ER/Studio Developer Edition trial		>>	>>

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