

Borland® Delphi™ 7 Studio

Features and Benefits

NEW! Microsoft® .NET interoperability and migration support

New! Borland® Delphi™ compiler warnings and hints for Microsoft® .NET compatibility

Assists Delphi developers in developing and updating new and existing Microsoft Win32® applications for Delphi to begin a smooth migration to .NET.

New! Import any .NET assembly as a COM object

Start benefiting from .NET technology today. Begin by using managed .NET objects in unmanaged Win32 applications.

New! Use Delphi COM objects in .NET managed Applications

Leverage existing Delphi objects in new .NET applications. Maximize code and resources by using existing Delphi COM objects in .NET applications.

New! Borland® Delphi™ for Microsoft® .NET prerelease preview

New! .NET preview CIL compiler for the Delphi™ language to create managed applications

Delphi developers can use the Delphi for Microsoft .NET compiler to build true .NET applications using the Delphi language and the Microsoft .NET framework.

New! .NET migration documentation

Learn to use the Delphi for .NET prerelease compiler with included electronic .NET migration documentation.

New! Borland Kylix™ 3 for Delphi development included with Delphi™ 7 Studio

New! Kylix™ 3 for Delphi development environment

Gain the benefits of cross-platform development between Linux® and Windows® to gain increased marketability of your applications with Kylix 3 for Delphi included in the box.

Borland®

Borland® Delphi™ 7 Studio Features and Benefits

New! Bold® for Delphi™

New! True Model Driven Architecture™ (MDA™)

Get applications from concept to production faster with a true two-way model aware business-object Borland VCL (Visual Component Library) framework. With Bold,® the model is the application.

New! Unified Modeling Language™ (UML™) technology. Full support for class diagrams, tagged values, stereotypes, associations (aggregates, compositions), cardinality, visibility, mixed transient/persistent elements and classes

Bold for Delphi integrates a powerful model-driven and n-tier business-object framework into Delphi to establish a model-driven application design system that links the UML environment in ModelMaker, Rational Rose,® or any XML file directly to the application design environment of Delphi and the VCL framework for Bold.

New! Integrated support for Rational Rose® and ModelMaker

Seamlessly link both Rational Rose and ModelMaker to and from Delphi for easy and consistent develop-to-deploy e-business development.

New! ModelMaker technology

New! UML-based visual modeling and refactoring tool

Visually architect your application efficiently with modeling and refactoring based in UML.

New! Native Delphi integration, reverse engineering, and instant visualization

Produce high-quality designs and code in a completely Delphi-oriented modeling environment. Save time by applying off-the-shelf design patterns to create larger models.

New! AToZed IntraWeb Software technology

New! Deploy your application to the Internet, utilizing drag and drop visual Web application development

Deliver your Delphi applications to the Web faster by rapidly and visually building dynamic server-side HTML Web applications. AToZed IntraWeb Software provides all of the productivity, ease of use, and time saving benefits of Delphi for real Web development the "Delphi way."

New! Transparent management of Web application details

Save development cycles by developing Web applications with traditional application skills; allow IntraWeb to do the work for you when managing Web application details such as cookies, sessions, and user management. Create, debug, and maintain multi-user Web-based applications quickly with Application Mode.

New! Nevrona Rave™ technology

New! Powerful Rave Reports Borland Edition (BE) visual report designer with PDF, HTML, RTF, and text rendering formats

As the primary means for your customers to retrieve information about their data, the added flexibility and speed of Rave Reports BE from Nevrona combines Rave visual and code-based report designers, a Rave server, SQL drivers for database interfaces, and support for multiple databases. With more options to view data, there is no single vendor lock-in.

New! Native support for Borland Visual Component Library (VCL) and Component Library for Cross-platform (CLX™) applications

Utilize Rave Reports BE with both the Delphi 7 Studio and included Kylix 3 for Delphi development environments for cross-platform reporting.

New! Windows XP™ Themes

New! Enable applications to take part of Windows XP™ Themes with a look that will blend in with your favorite Windows XP theme

New TThemeServices enables applications and components to use theme functions transparently. Take full advantage of the new XP look for the Windows common controls library (comctl32.dll version 6.0).

New! Manifest component

Add a manifest to enable themes support in your application more quickly and easily.

Borland DataSnap™—Web Services-enabled database middleware scalability for your Internet applications

New! DataSnap™ middleware license included for unlimited deployments

With Delphi 7 Studio, build and deploy scalable n-tier high-performance database applications without additional license fee requirements.

New! Royalty-free DataSnap middleware drivers

Use TCP/IP Sockets, SOAP, or COM to seamlessly scale your database applications from client/server to high-performance 3-tier applications with ultra-thin client-side GUI or Web clients.

Borland® Delphi™ 7 Studio Features and Benefits

Web client, GUI client, and new Web Services access to any supported RDBMS

Bring flexibility to your database-enabled applications. Whether presenting to an end user, issuing information to a Web browser, or serving data over the Internet as Web Services, DataSnap enables you to send data, anytime, anywhere.

SOAP/XML, COM, CORBA,® Web, and TCP/IP access connections

Use a broad range of industry-standard connectivity options to reach your data, using methods you know and maintaining flexibility for future development.

Easily build XML/SOAP Web Services interfaces to enterprise-class databases

Expand the reach of your enterprise database with Web Services. Allow database clients to connect to your database from anywhere in the world using SOAP/XML Web Services.

Data set-based middleware architecture

Use known database programming techniques for a rapid learning curve: use existing skill sets to scale your applications and your system with Rapid Application Development (RAD) speed.

Borland BizSnap™—Web Services with XML technologies

Create Web Services and Web Services consumers

Accelerate your business processes with Web Services that automate business-to-business (B2B) and business-to-consumer (B2C) transactions over the Internet. Delphi 7 Studio Professional now enables the rapid creation of server-side W3C-compliant Web Services using SOAP, XML, WSDL, and more

New! UDDI browser to visually locate and import registered Web Services

Save valuable time with the ability to browse available UDDI directories in order to locate Web Services providers and import services directly from the browser into your application.

New! Automatic UDDI client fail-over support

Gain resiliency through automatic Web Services fail-over support using the UDDI client.

New! Global XML Architecture (GXA) for Web Services

Support for GXA provides increased availability, reliability, and security of sophisticated Web Services business processes.

New! Binary attachment support

Gain the flexibility of passing proprietary data in binary format.

Borland® Delphi™ 7 Studio Features and Benefits

SOAP communication wizards and components for instant Web Services

Get e-business applications to market fast with instant Web Services from any business process, class, or component. Let Delphi 7 Studio handle the details of SOAP, XML, WSDL, and **New!** WSIL—let your developer handle the details of business logic.

Connect your applications seamlessly to Web Services-based platforms such as Microsoft .Net, Sun® ONE, and others.

Seamlessly integrate your IT systems and applications with business partners anywhere in the world—regardless of platform, language, or location.

Automatic WSDL handling and publishing

Use simple step-by-step wizards to easily harness the power of the Web Services Description Language (WSDL) and access Internet Web Services to add functionality to your applications across the Internet. Automatic generation of WSDL documents for any interface exposed in your Web Services package.

Delphi native SOAP bindings

Delphi native SOAP bindings enable all the timesaving RAD benefits of Delphi, simplifying development and reducing the learning curve for Web Services development. Use CodeInsight,™ compiler type checking, syntax highlighting, debugging, and more.

XML Transform Components (XML<->data set, XML<->XML)

Easily scale B2B applications. Enhance your application's adaptability and enable it to automatically translate XML data without recompiling and re-deploying when introducing new XML formats.

XML schema transform tools and utilities

Save resources when setting up automated information exchanges among B2B or B2C applications.

Multiple XML DOM level 2 support

Gain vendor-independent DOM compatibility: avoid vendor lock-in and incorporate data from virtually any XML source.

XML document object in VCL

Adapt to new XML types without rebuilding; gain fast programmatic access to XML formats that are new to your application.

Wizards to simplify development of CORBA clients and servers

Save your development team's time: integrate your enterprise applications using Delphi wizards to import and export CORBA and Delphi interfaces.

Borland WebSnap™—the complete Web application design platform

Deploy your Web applications to Microsoft Internet Information Server (IIS), Netscape®, and now Apache™ servers! With support for ISAPI, NSAPI, Apache, and CGI

Support for all the major servers means no retooling for your IT department. You do not have to rebuild or replace; simply enhance and extend your infrastructure!

Web page surface designers

Rapidly build and view your WebSnap™ application surfaces and see an instantly updated browser preview of your application.

XML tree and XSL tree displays

Quickly and easily view XML and XSL documents with easy-to-read indentations and syntax highlighting.

Web page components for server-side scripting

Easily interface WebSnap objects with Web site development team with “scripters,” using custom tags to merge your Delphi business object foundry seamlessly into your Web team.

Pre-built “scriptable” Web page components

Get a running start in Web development with components for commonly used functionality—datasets, login forms, end-user sessions, and other Web application elements.

Multiple Web modules in a single project

Organize your pages and site by dividing up the functionality among different units.

XSL page producers

Reduce coding time otherwise spent parsing XML data and accelerating runtime performance by automatically formatting XML pages using XSL style sheets.

Enhanced Server-side “scripting” in WebSnap™ with JavaScript®, VBScript, or any ActiveScript language

Add flexibility and avoid vendor lock-in with your choice of script language while also gaining the performance and security benefits of scripting at the server side.

ActiveScript debugging support in WebSnap

Debug your script within WebSnap to further reduce your project’s turnaround time and enhance your application’s quality.

Borland® Delphi™ 7 Studio Features and Benefits

Support for CORBA®

New! Borland Enterprise Server, VisiBroker® Edition 4.5.x for Delphi 7 Studio, including CORBA client and server development

Integrate your enterprise applications with Delphi 7 Studio, leveraging the load balancing and fail-over security of Borland Enterprise Server, VisiBroker® Edition for CORBA infrastructure as clients of your CORBA services, and now as CORBA servers.

Borland CLX™ (Component Library for Cross-platform) development on Windows®/Linux®

More than 160 CLX™ native components

Bring the convenience of the VCL and Rapid Application Development to your cross-platform Windows and Linux applications with the CLX component framework.

Borland BaseCLX™ RTL classes and components

Delphi CLX provides great flexibility with BaseCLX RTL classes and components. The Delphi “virtual toolbox” of BaseCLX provides numerous timesaving, pre-built objects and classes to accelerate your application development.

Borland VisualCLX™ native GUI components and data-aware visual controls

Save valuable coding time with VisualCLX GUI components and data-aware visual controls. Both come with multiple standard GUI elements, pre-built and ready for use in your applications. The GUI display set includes many commonly needed components such as a Form, EditBox, Label, Grids, Image, Bevels, Listbox, ComboBox, ListView, TreeView, Meter, and much more.

VisualCLX GUI input components

Quickly create rich application interfaces with Delphi VisualCLX GUI input components. The GUI input components include Menus, PopupMenus, Buttons, Checkboxes, Radio Buttons, SpeedButtons, SystemTimer, Sliders, and more.

VisualCLX GUI control components

Quickly incorporate functionality such as Toolbars, Scrollbars, Control bars, and more into your applications. Create functional “hot spots” in your application’s interface using Delphi VisualCLX GUI controls.

Common CLX GUI dialogs

Easily incorporate common GUI dialogs into all your applications. Delphi CLX comes standard with common GUI dialogs such as Open, Save, Font, Color Picker, Find, and Replace.

Borland® Delphi™ 7 Studio Features and Benefits

Borland DataCLX™ highly scalable data-access components

Harness the productivity and performance of the dbExpress architecture with flexible, scalable, data-aware controls that are single-source between Delphi on Windows and Kylix on Linux.

Borland dbExpress-RADical performance cross-platform database access

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dbExpress high-performance database drivers

Easily connect your applications to the most popular enterprise-class databases, all supported right out-of-the-box. The dbExpress database drivers will open your applications to MySQL,™ Borland InterBase,® Oracle,® IBM® Informix and DB2,® and **New!** Microsoft SQL 2000 database engines, with additional engines to be added in the future.

High-performance dataset, query, and stored procedure components

Get fast, native access to whatever form of information your RDBMS provides through dbExpress components, while working within the familiar dataset-based Delphi component architecture.

SQL Monitor component

Using the SQL Monitor, applications can keep tabs on their own performance and programmatically adjust themselves to take action when environmental factors change.

Multiple transactions on a single connection

Increase application responsiveness, reduce network congestion, and relieve single site licensing restrictions with your database by sharing a single database connection among multiple transactions.

Single-file distribution of dbExpress applications

dbExpress drivers in compiled form can be linked directly into a Delphi application, yielding a literal single-file application that is database-ready and requires no configuration.

Borland NetCLX™ and WebBroker™—compatible cross-platform Web application development framework for Windows and Linux

Develop single-source applications for deployment to Web servers on Windows® and Linux®

Increase your return on investment in Delphi 7 Studio by expanding to the Linux server marketplace. Use a single skill set and code base to create applications that are source code compatible with Delphi 7 Studio for Windows and Kylix for Linux.

Borland® Delphi™ 7 Studio Features and Benefits

Page producers and dispatchers

Accelerate your Web development with customized components for serving Web pages and receiving requests, or design your own for your custom adapters and services.

Automated Web debug server

Reduce your development time with sophisticated tracking of all communication between your application and the browser. Avoid “black box” testing and gain access to the full transaction history of your application.

NetCLX™ Web application framework

Produce high-speed, high-throughput, dynamic cross-platform Web applications that are compatible with WebBroker.™

NetCLX Web application components

Perform cross-platform development for Apache, IIS, Netscape, and more using ISAPI, NSAPI, Apache DLL extensions, or CGI on Windows with Delphi 7 Studio and on Linux with Kylix!

New! Apache 2 support in NetCLX

Use the world’s most popular Web server as the basis for all your NetCLX applications and realize the Apache benefits in cost-savings, stability, and ease of maintenance.

Borland MyBase™—personal XML database engine

XML file persistence

Simplify data distribution and optimize data exchange. With Delphi 7 Studio, you build high-speed Internet applications that quickly deliver your data to the Web. The Delphi 7 Studio supported XML data enables you to quickly build systems that are flexible and extensible, so you can integrate into your e-business architecture.

In-memory table performance

MyBase™ is completely memory-based for fast runtime performance.

Zero configuration

Zero-configuration of distributed thin-client applications means you will have minimal maintenance for dealing with user configuration problems. Only the client executable is required for full-featured support on the client side.

Small footprint

Using MyBase adds less than 300K to your applications. MyBase runs within your application, so there is no need to deploy additional files.

Borland® Delphi™ 7 Studio Features and Benefits

ANSI SQL92 Expression Syntax

Increases your productivity and performance by utilizing ANSI SQL92 Expression Syntax in Delphi for live filtering and aggregation.

Linkable master/detail table relationships

Handle even the most complicated data with the simple MyBase engine. Without writing a single line of code, complete relational database information, including table structures, which can be distributed to thin clients.

ClientDataSet based with transparent scalability to dbExpress

Protect your applications and keep them ready for large user counts. MyBase is easily scalable to dbExpress and DataSnap—as your user base grows, expanding your system to a distributed system merely requires adjusting a few properties in your application.

Import data from any dbExpress RDBMS into local MyBase™ XML tables

Enjoy the additional flexibility and mobility of being able to export data from supported databases and import it into a local MyBase XML table for prototyping work, end-user brief casing, or generating localized versions of your application—all using genuine data rather than mockups.

Support for all popular data types, including Blobs

With MyBase, your application can handle a wide array of data types. An individual Blob field can be many gigabytes in size, and you can design tables with more than 8,000 Blob fields in a single record.

Deliver applications to market faster

New! Message Helper

Be more productive with Message Helper as it assists in interpreting compilation errors and supplies links to the documentation needed to quickly resolve them.

Expression evaluation in compiler directives

Gain tighter control and greater flexibility over your program's compilation by directing the Delphi 7 Studio compile path based on existing conditions. Compiler expressions reduce the amount of code you have to manage.

Borland® Delphi™ 7 Studio Features and Benefits

Custom variants to support your own data types; support for custom variants in safe arrays; and data handler support for passing them through datasets

Increase the flexibility of your system by integrating your own data types and variant structures into the structure of your applications and reduce the workload in handling them. Custom variant support enables the developer to handle data unique to the business situation throughout the application, abstracting away from difficult pointer manipulation.

Expanded variant support for Intel® 64, complex numbers, and the unsigned types

Increase the accuracy of your applications while reducing development time by handling intricate mathematical conversions with enhanced numeric data handling.

Deprecated hint directive to help protect your application development

The deprecated directive enables developers to declare portions of their code subject to future removal. Users of that code will receive warning and change their applications proactively, and developers of that code are able to manage their code base more effectively.

Platform and library hint directives to assist in cross-platform development

Protect your code with hint directives that automatically inform you when you use components that are not cross-platform.

Object TreeView

Save time searching for specific components on a designer and assess containership at a glance using the hierarchical Object TreeView.

Class completion

Accelerate creation of new class types by providing hot key-based help, which fills out the details of a class based on its ancestry.

New! HTML 4.x code completion

Speed development of HTML pages and analysis of existing ones—code completion for HTML enables tag selection, open tag completion, and attribute completion, significantly reducing time spent scripting.

New! Code completion for DTD described markup language including HTML, WML, XHTML, XSL

Expand your usability of Web technologies by taking advantage of code completion support for various DTD-based Web languages.

Borland® Delphi™ 7 Studio Features and Benefits

New! Toggle visible symbols in editor that represent use of white space as tabs or spaces

Increase your tool's flexibility by maintaining code layout in external editors by identifying characters used to represent white space.

New! Syntax highlighting OpenTools API extension with built in support for JavaScript, PHP, and INI files

Extend the Delphi IDE to support syntax highlighting for any language you use to more easily identify key language constructs.

Enhanced Component palette

Enhanced layout enables quicker navigation.

Code completion improvements

Code completion is enhanced in a variety of ways to improve productivity: it is accelerated dramatically to reduce wait-times, given a resizable window for additional flexibility, color coding is improved for better legibility, and code completion entries are now hyperlinked to be "browseable," enabling investigation of suggested code! Code completion even filters its readout as the user types, enabling quicker selection of suggested code!

Packages in Project Manager

Simplify code management by maintaining custom component packages side-by-side with applications.

RTL package for non-visual applications

Reduce your console or non-visual application's size and enhance its maintainability using runtime packages deployed with an RTL package.

Borland Object Inspector™

Save time locating linked components—the Object Inspector now presents drill-down references to all linked components.

New! Non-default properties are now shown as bold to allow you to quickly determine what things have possibly been changed.

Context-sensitive component palette

Speed assembly of application forms. Designers are now recognized by the component palette, which removes unusable components from view.

Multi-tab message view

Accelerate assessment of the IDE's messages by consolidating their locations to one organized, tab-delineated spot.

Borland® Delphi™ 7 Studio Features and Benefits

Windows® 2000-style shell control examples

Build applications that share a common look and feel with the desktop and other popular applications. Harness the shell interfaces for your own component development, giving you direct access to the operating system for faster responsiveness and comprehensive knowledge of the operating environment.

Component interface reference architecture

Simplify development and configuration of component interfaces by using the same familiar Object Inspector rather than separate editors or viewers to adjust them.

TDateTime extensions

The new date and time extensions save time coding date manipulations and conversions, and are compliant with industry standards for consistent results across different systems.

SubComponent classes

Increase functionality and development speed by combining commonly matched components.

Conversion unit

Simplify coding of measurement conversions in your applications with pre-constructed routines.

Action MainMenu and Action ToolBar components

Use a modern Office XP-style interface and centralize UI code management with dynamic Action Manager-driven UI surfaces to build sophisticated and centrally controlled user interface designs.

Action Manager container component

Take the tedium out of UI design and provide central management of your action events with codeless self-configuring dynamic user interfaces.

Borland ActionBands™ customization manager

Give end users of ActionBands applications total control over ActionBands UI configurations at runtime, without coding by the developer!

Data module designer views

Quickly gain a more comprehensive understanding of the data in your applications with new views into your data modules. The TreeView will show parent-child relationships among data-access components and simplify the navigation among the items and sub-items of a data module. The data diagram view will visually show and set entity-relationship dependencies (including master/detail and lookups) among data-access components. Printing these views will greatly simplify the documentation of your data modules.

Borland® Delphi™ 7 Studio Features and Benefits

Control panel wizard

Customize your applications' properties with the control panel wizard. The advanced task of implementing application customization, using a Windows control panel applet, is now more easily accomplished.

Console application wizard

Get those simple applications written quickly with the console application wizard. Quickly build console applications that run without a graphical interface. For students, this benefit will simplify the learning of Delphi.

To-do lists

Organize your project's task list in one easy-to-manage place and keep your development on schedule. What better location for your list of tasks than the place where you'll actually work to complete them! With the Delphi 7 Studio to-do lists, you will easily manage projectwide items or to-dos embedded directly in your source code.

Custom editor key mappings

Fine-tune the editor for the way you work with the editor key mappings. Customize the functions of the entire keyboard or just the few keys you need for an editor that does everything you've always wanted.

Customize your desktop for the way you work

Control your development environment with the Delphi 7 Studio customizable desktop settings. You control which tool window you want opened and its exact placement on your development desktop. Create as many desktop layouts as you need to customize your environment for different situations or projects. Delphi 7 Studio even keeps track of your preferred debug desktop and automatically sets your desktop whenever you begin debugging.

Borland AppBrowser™ IDE

The AppBrowser IDE greatly increases developer productivity by simplifying the process of reading, writing, and browsing code. The code editor eases the task of navigating within a unit or among related units. The editor metaphor is now similar to a Web browser that allows a developer to browse through project code. The IDE also makes use of the Microsoft Intellimouse,® keeping the developer focused on code rather than the IDE.

Project browsing

Navigate and understand your source code more easily with the project browser. The project browser maintains a live structured TreeView of the entire project's contents, including classes and their properties, methods, and events. To better understand the VCL and how your project fits into the hierarchy, you can quickly switch the scope of the project browser from the class hierarchy of your project to that of the VCL.

Borland® Delphi™ 7 Studio Features and Benefits

Code explorer

Code is now much easier to understand and maintain with the code explorer, which maintains a live structured TreeView of the current unit. This structured view becomes a table of contents into the source code, thereby facilitating the entire coding process.

Code completion

Delphi 7 Studio assists developers in the use of the VCL and their own components. As you type, Delphi 7 Studio automatically provides the list of properties, methods, and event names for the given component, class, or member. You no longer have to remember the members, methods, and property names, and you don't have to look them up in help. Code completion saves valuable development time and helps reduce the learning curve of Delphi 7 Studio.

Parameter ToolTips

Delphi 7 Studio automatically displays a ToolTip parameter list for procedures, functions, methods, and events as the developer uses them in code. Parameter ToolTips save valuable time by eliminating navigation in the editor and by making information available when you need it. Parameter ToolTips also reduces errors by ensuring that function parameters are passed in the correct order of the declaration.

ToolTip Symbol Insight

ToolTip Symbol Insight displays declaration information for any identifier when you pass the mouse over it in the Code Editor. A pop-up window shows the kind of identifier (procedure, function, type, constant, variable, unit, and so forth) and the unit file and line number of its declaration.

Advanced Project Manager

Identify and activate projects faster with the new Project Selector. Drag-and-drop support in the Project Manager makes it easy to add files to projects from open projects or Windows Internet Explorer® file dialogs. Use the Project Manager multiproject support for easy compilation on multiple targets such as EXE and DLL files. Your application may consist of multiple projects: one for an executable and one for a DLL, for example. Now, you can write, compile, and debug (on Windows NT®) multiple projects at the same time with Project Groups.

New! Source options

Easily customize Delphi 7 Studio to handle multiple file types by customizing Editor Options for groups of files.

Code templates

Delphi Studio provides standard code templates for statements such as if, for, while, and switch so that programmatic syntax is always correct. In the editor, simply start a code statement, and Delphi 7 Studio will complete it for you, thereby reducing errors and speeding development. Delphi 7 Studio also allows the developer to add code templates so that the development environment is customized to your own corporate standards.

Borland® Delphi™ 7 Studio Features and Benefits

New! You can now customize code templates on a per file type basis. Delphi 7 Studio comes with a complete set of code templates for Delphi, C/C++, and HTML.

Advanced debugging capabilities—deliver quality software on time

Enhanced Watch View

The Watch View now allows you to easily enable and disable watches by using a Checkbox. In addition, it now displays its data in a separate column, making it easier to see your watch value.

New! Multi-tab Watch View

Logically group variables while observing during debugging to more easily grasp runtime conditions.

New! Thread naming by exception

Easily track the threads of your application with easier identification and tracking of those threads by name.

Multiprocess and cross-process debugging

Multiprocess debugging in Delphi 7 Studio allows the developer to debug multiple local and remote processes simultaneously on Windows NT. Cross-process debugging allows the developer to step across process boundaries. With Delphi 7 Studio, debug both client and server COM projects without leaving the IDE.

Remote debugging for distributed object development

When building mission-critical distributed applications, the development environment must allow applications to be debugged not only locally, but also in their deployed environment. Remote debugging makes debugging distributed applications simple by enabling the developer to remotely debug EXEs, DLLs, and objects running on other machines with the exact same tools and features used when developing the objects locally.

Attach to running process

Attach to running process helps find bugs outside your project by enabling you to debug processes that are currently running. Remote running processes can also be attached through the remote debug server.

Breakpoint ToolTips

Breakpoint ToolTips make monitoring breakpoints easier and debugging code faster. Moving the cursor over a breakpoint will display the breakpoint properties, including condition, pass count, associated actions, and group names.

Borland® Delphi™ 7 Studio Features and Benefits

Breakpoint actions and groups

Gain the control you need to debug complex applications quickly. Beyond the traditional execution break, breakpoint actions give you increased flexibility by also handling exceptions, evaluating expressions, logging events, and triggering on or off groups of breakpoints. Organize and manage multiple breakpoints easily with breakpoint groups.

Streamlined usability

Debugging in Delphi 7 Studio has never been easier. Delphi introduces numerous usability enhancements including drag-and-drop support, clipboard support, multi-selection support, and streamlined integration among debug tools and the editor. Give yourself more information to go on while you debug by easily linking debugged versions of the VCL into your code.

Conditional, data watch, and address breakpoints

To help find tough bugs quickly, conditional breakpoints allow you to specify a conditional expression that is evaluated each time the breakpoint is encountered. Data watch breakpoints help you find complex pointer problems by breaking only if memory gets written to a certain address. Address breakpoints allow you to set a break on a specific machine instruction.

ToolTip Expression Evaluation

The ToolTip Expression Evaluation allows the developer to position the cursor over an object, variable, parameter, constant, or any other expression to see the assigned value in a Windows ToolTip.

FPU/MMX view

Get to the low-level debugging information you need in the FPU view with detailed information about the Floating Point and MMX registers, including register values, status, control, and tag words.

Module view

For detailed low-level debugging, use the module view to see different modules, such as EXEs and DLLs, within a single debug session. Module view is a three-paneled view that shows detailed information about the different modules that are loaded by the process being debugged.

Event log

For tracking hard-to-produce problems, the event log shows process control messages, breakpoint messages, real-time OutputDebugString messages, and window messages. Using the local menu, you can clear the event log, save the event log to a text file, add a comment to the event log, and set options for the event log. New support for customizable color output to the event log for different event types.

Borland® Delphi™ 7 Studio Features and Benefits

Integrated DLL debugging

Delphi 7 Studio allows the developer to debug DLLs within the Delphi 7 Studio environment. There is no need for a separate and costly debugging program in order to create complex applications containing DLLs. By simply setting the host application and setting a breakpoint in the DLL, the developer saves time in creating and debugging DLLs for use in Windows applications, Web server applications, and other development tools.

Local variable inspection

The Delphi 7 Studio local variable inspection view automatically and dynamically displays all variables local in scope without the need to explicitly declare.

Borland Visual Component Library (VCL)—the ultimate in code reuse

New! Enable applications to take part of Windows XP themes with a look that will blend in with your favorite Windows XP theme

New! TThemeServices enables applications and components to use theme functions transparently. Take full advantage of the new Windows XP look for the common controls library (comctrls.dll version 6.0).

New! Manifest component for Windows XP Themes

Quickly and easily add a manifest to enable Windows XP Themes support in your application.

VCL-component framework

The award-winning object-oriented component framework of Delphi 7 Studio Architect and Enterprise delivers the only true component architecture with more than 300 visual and non-visual components that are completely reusable and extendable. For real component development and high-productivity code reuse, few can compare to the component framework of Delphi 7 Studio.

Frames

With frames, the task of building and reusing sophisticated compound components is greatly simplified with a new visual designer. Frames are a special kind of form that can be nested within a form or another frame. By using the visual frame designer, developers build reusable visual and business components that are easily reused, like any other VCL component.

Web browser component

Integrate complete Web browsing capabilities into your applications using the Web browser component. The Web browser component facilitates the addition into your application of Internet capabilities such as document viewing, data downloading, and file and network browsing directly.

Borland® Delphi™ 7 Studio Features and Benefits

Microsoft Office automation components

Quickly integrate your applications with Microsoft Office applications such Word, Excel, and Outlook.® With a complete set of Office automation components, you can use your Delphi 7 Studio knowledge to automate Office applications as if they were VCL components.

Property categories

Advanced developers will gain a boost in productivity, and beginners will learn faster with property categories. By viewing and filtering properties in the Object Inspector by category, you can quickly find related properties.

Property Editors Owner Draw

Simplify making a property choice with Owner Draw support in the Object Inspector property editors. With the customized rendering of property choices, items such as images, colors, and cursors are now easily and visually chosen.

Advanced Custom Draw

Delphi Studio gives you even more control over the Windows API with support for Advanced Custom Draw functions. Developers gain valuable insight into the drawing process as the advanced functions are triggered more often.

Borland ActiveInsight™—an enterprise component foundry for maximum reusability

Event object wizards speed linking to COM+ events and VCL support for COM+ event registration

Simplify your object deployment with the automatic adoption of COM+ configuration attributes of Delphi 7 Studio, and encapsulate COM+ objects in VCL components easily with direct VCL mapping of events.

DataModule™ for transactions

Easily manage and trace COM+ code by organizing and segregating COM+ objects within applications.

Microsoft One-Step ActiveX®

Delphi 7 Studio is a high-productivity application environment for creating high-speed industry-standard ActiveX components. Delphi 7 Studio easily creates ActiveX controls that can be used with existing development tools, such as C++, Java,™ Visual Basic,® and PowerBuilder,® in use throughout the enterprise. ActiveX controls in Delphi 7 Studio are native machine-code compiled and do not require a distributable runtime environment.

Borland® Delphi™ 7 Studio Features and Benefits

ActiveX control data binding

Bind any data-aware properties from any ActiveX control to the powerful local, client/server, and multi-tier data sources of Delphi 7 Studio. Gain user interface flexibility by binding data-aware VCL controls to the same data sources for two-way, one-to-many user interface relationships.

COM server components

The innovative Delphi 7 Studio Import Type Library wizard creates components directly out of COM (Common Object Model) servers such as Microsoft Word and Excel, for example. These components dramatically simplify the development of applications that automate COM applications by bringing this development into the visual RAD environment of Delphi 7 Studio. COM server components behave much like native VCL components, by surfacing properties that control the appearance and behavior of the COM server and events that expose the COM servers default events.

Built-in support for COM

Delphi 7 Studio integrates COM seamlessly into its Rapid Application Development environment, so developers can easily and quickly create reusable, language-interoperable business objects. Delphi 7 Studio uses COM objects in a multi-tier environment to provide reusable and integrated business solutions. Delphi provides a solution for the development of efficient application executable that need to be quickly and easily distributed via an intranet to a large number of users. Delphi enables you to recompile with packages to reduce executable size by an order of magnitude.

Packages

Packages represent a unique leading-edge compiler technology that gives developers the ability to break down applications into separate, reusable, compiled pieces without a slowdown in performance. Packaged applications use a customizable application environment that is delivered and configured once, thereby reducing both the configuration complexity of the application and the need for additional distribution resources.

Integrated Type Library creation reduces the number of programming tasks

The Type Library Editor is an essential graphical tool that enables developers to more easily examine and create type information for ActiveX controls and COM objects. This Type Library information can be provided with an object either stand-alone in a type library (.TLB) file, or integrated into the EXE or OCX as a resource. Using and creating IDL (Interface Definition Language) has never been easier. Because the Type Library Editor is integrated into COM and ActiveX development, the developer can change things in code, in IDL, or graphically, and always have a synchronized view into complex COM development. This saves hours of programming frustration and flattens the COM/DCOM/ActiveX learning curve.

Support for additional type library information

Delphi 7 Studio now supports even more varied type libraries with its support for sparse vtables.

Borland External Translation Manager—conquer new markets worldwide

Borland External Translation Manager

With Delphi 7 Studio, the market for your application has grown to include the entire planet. The Borland External Translation Manager is what you need to easily translate your applications to new languages. Simultaneously develop your application for multiple locales for a faster time to market. Delphi 7 Studio manages the translation of resources and maintains a repository of translated items to accelerate your international development.

Resource DLL Wizard

Kick-start the process of translating your application using the Resource DLL Wizard. You will quickly and easily create new language DLLs for distributing your application to new markets. The Resource DLL Wizard is the fast track to creating, updating, and deleting the resources required to translate resources in your applications.

Translation Manager

Streamline the process you use for localizing your application for new languages. The Translation Manager speeds time to market for the language translations of your application and simplifies the process of simultaneous development and translation.

Translation Repository

Reuse translated items for even faster time to market. The Translation Repository facilitates the sharing and reuse of items that have been translated. It does this across projects and shares the work of multiple developers. The Borland Translation Manager automatically makes full use of translated items in the Repository during the localization process to provide default translations for your international development team.

Borland InternetExpress™—full-featured thin-clients for the Web

XML Web browser tables

Dramatically accelerate your Internet applications, passing your information to the browser as high-performance, locally cached data.

XML data packets from DataSnap

Simplify data distribution and optimize data exchange. With Delphi 7 Studio, you build high-speed Internet applications that quickly deliver your data to the Web. Delphi 7 Studio support for XML data enables you to quickly build systems that are flexible and extensible to support the next wave of Internet e-commerce.

Borland® Delphi™ 7 Studio Features and Benefits

XMLBroker

Quickly build dynamic Web server applications that provide XML data to browser clients and resolve updates of the XML data back to the DataSnap application server. XMLBroker automatically handles all of the communications from the browser client to the DataSnap server.

HTML/XML Web Page Editor

Design HTML 4 Web documents that deliver dynamic XML data. The Web Page Editor will step you through assembling all the items required to build full-featured browser clients, including forms, master/detail relationships, and tabular grids. Quickly and easily navigate to any of the items on your Web page with a live TreeView. With an integrated Web browser, the Web Page Editor displays an exact live preview of the Web page as it is assembled. Design-time warnings further speed the developer along by prompting for required information as soon as needed. Customizing and learning the generated HTML source is always maintained and easily retrieved.

Borland InterBase Express™ (IBX™)—high-performance turnkey systems

True native Borland InterBase® interface

IBX™ applications work better, perform faster, and give you access to advanced features of InterBase never before available in a standard component. IBX is designed to serve the needs of InterBase developers and to provide a high-performance component interface for InterBase versions 5.5 and later.

Familiar data access component architecture

IBX is based on the Delphi 7 Studio custom data access component architecture and is integrated with the new Delphi 7 Studio DataModule designer, so developers who are familiar with traditional data access components can feel right at home. The TIBDataSet component is compatible with the rich library of data-aware components of Delphi 7 Studio.

Unlimited deployment of IBX™ components

Delphi 7 Studio Enterprise and Professional grant a license to deploy IBX components as part of your applications. Deploy your projects and solutions with IBX, the true native interface for InterBase, at no additional cost.

Borland® Delphi™ 7 Studio Features and Benefits

Advanced transaction control

All the powerful options of InterBase transactions are available in the TIBTransaction component. Your applications benefit in performance and concurrency by using the most appropriate transaction options for a given situation. You can maintain multiple concurrent transactions on one or more databases, to interleave data operations that need to remain logically atomic. TIBTransaction supports distributed transactions involving multiple databases, allowing you to implement integrity-enforcement and data-consistency across multiple databases.

Comprehensive database information

Applications can request information about a database or an InterBase server from IBX. This includes database properties, system-performance data, users currently connected to the database, and other information. Developers can use this component interface to write performance-monitoring applications and database automation tools.

Transparent updates of read-only datasets

You can use the TIBUpdateSQL component to define custom actions for updating normally read-only datasets. You can design normalized databases without restricting your ability to design applications to update complex datasets. This allows you to have the freedom to implement code by design rather than by working around your database implementation.

Powerful SQL component

For ideal high-performance SQL access, IBX includes a basic TIBSQL component. This component doesn't share live data with Delphi 7 Studio data-aware controls, but it is useful for executing SQL tasks when speed is most important.

SQL Monitor component

Advanced debugging of data access is made possible by the SQL Monitor facility, resulting in faster engineering for client/server and multi-tier InterBase projects.

DataSnap provider

IBX can function as a data provider for DataSnap applications, to allow you to implement scalable multi-tier solutions with thin-client applications.

Upgrade path to InterBase 6.0 features

X exposes new InterBase SQL features and database administration functions. If you use IBX in your InterBase projects, you will gain immediate access to new enhancements as Borland releases InterBase 6.5 and later versions.

Borland® Delphi™ 7 Studio Features and Benefits

Complete support for Microsoft ADO

Delphi 7 Studio gives you fast access to both relational and non-relational databases, including e-mail and file systems. Using the Microsoft ActiveX Data Object (ADO) and OLE DB technology, you gain immediate access to the universe of data that your end users need to make better business decisions. Combined and integrated with the open data component architecture and data-aware components of Delphi 7 Studio, you will quickly build systems that take your business data to your customers on the Internet, to your end users, and to your entire supply chain. Your applications will deploy effortlessly, as ADO becomes a standard part of your end users' client operating environment. (Delphi 7 Studio support for ADO does not require the Borland® Database Engine).

ADO, OLE, DB, and RDS connection components

Connect to any OLE DB provider for retrieval of all types of information, including SQL databases, indexed-sequential files, and spreadsheets. The ADO connection component gives you complete control over all aspects of information retrieval such as record-locking schemes and transaction levels. Take advantage of the Internet and the Web to easily and efficiently connect distributed systems using the RDS (Remote Data Service) connection component. With RDS, you gain easy access to remote databases with the additional benefits of client-side caching of data and maintainability.

ADO command component

Control data manipulation and definition with the command component. Use the command component to efficiently issue commands such as SQL statements to a data provider.

ADO dataset component

Maintain complete control while navigating and updating the underlying OLE DB data with the ADO dataset component. The dataset component encapsulates the low-level ADO RecordSet and OLE DB RowSet objects providing the developer with control over important properties such as lock type, number of rows to retrieve, and cursor type required.

Support for tables, queries, and stored procedures

Get up to speed quickly and migrate your existing Delphi 7 Studio applications to ADO easily with the table, query, and StoredProc components.

Borland InterBase® 6.5 embedded RDBMS—provides high-performance database technology with enhanced ease of use

ANSI SQL92

InterBase implements the entry-level ANSI SQL92 language faithfully, providing standard query language support for developers. InterBase also implements selected features from the intermediate and full level of the SQL92 standard. Because InterBase conforms to this standard query language, developers who know database products can be productive with InterBase in short order.

Heterogeneous multi-tier architecture

You have complete interoperability among platforms with InterBase. For example, an application on a Windows workstation can access transparently a database on Windows NT, NetWare®, UNIX, or Linux, and vice-versa. You can move an existing database to a different server operating system quickly and easily.

Self-tuning database engine

Daily database administration work that is common with other databases is reduced almost to none, resulting in very low total cost of ownership. There are no files or partitions to allocate and no logs to flush. InterBase performs automatic garbage collection and dynamic file expansion as needed.

Small footprint

InterBase works on modestly sized server platforms. InterBase can install in less than 10MB and can use as little as 1MB of memory. Incremental user connections each require as little as 115KB additional memory.

Advanced transactions and data versioning technology

InterBase has one of the richest transaction models of any RDBMS, including a true repeatable-read mode without locking records. This technology enables applications to operate with a unique combination of consistency and concurrency. For example, users can update data while report generators create reports based on a snapshot of data—all without locking or exclusive access to data.

Readers and writers don't block each other

Thanks to the data versioning technology, clients can update data without blocking or delaying read access to the same data from other clients. Conversely, any number of clients can read an individual record without blocking an attempt to update the record. No other RDBMS provides this level of concurrency.

Blob data type

Borland invented the term Blob (Binary Large Object) with InterBase and still has the best implementation of Blob storage of any database. An individual Blob field can be up to 32GB in size, and you can design a table with more than 8,000 Blob fields in a single record. Blobs provide a dynamically sized unstructured data type for storing arbitrary textual or binary data, such as HTML or multimedia files.

Borland® Delphi™ 7 Studio Features and Benefits

International character support

More than 20 character sets and collation orders, including Unicode®-FSS, are supported in InterBase. You can design tables that contain multiple columns with different character sets. This enables a very powerful range of possibilities for deploying international applications.

Support for large databases

You can create databases composed of many individual files, each up to 4GB in size. Only server platform resources limit the maximum size of an InterBase database.

User-defined functions

You can extend the functions available in the SQL language by writing “plug-in” DLLs that contain your own Delphi 7 Studio or Delphi language code. InterBase includes a standard library of commonly used functions.

Triggers, stored procedures, and referential integrity

You can create intelligent databases by using the Active Server features of InterBase to enforce data rules universally and modularize database operations. This helps to simplify the implementation and updating of applications by centralizing data behavior. You can save time and money by implementing many types of changes to database rules without deploying application updates to your users.

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