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OVERVIEW

INTRODUCTION
Thank you for your interest in reviewing Delphi XE, Embarcadero’s cutting-edge native and web development tool. This reviewer’s guide will give you an overview of some of the key benefits that developers will enjoy with Delphi XE.

PRODUCT DESCRIPTION
Embarcadero® Delphi XE™ is the fastest way to deliver ultra-rich, ultra-fast Windows applications. Dramatically reduce coding time and create applications 5x faster with component-based development and a fully visual two-way RAD IDE. Speed development across multiple Windows and database platforms – for GUI desktop applications, interactive touch-screen, kiosk, and database-driven multi-tier, cloud, and Web applications.

CONTACT INFORMATION
We are here to support you throughout your evaluation period — and beyond. Please do not hesitate to contact us anytime at the numbers and emails below.

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**Delphi XE Highlights**

**New and Interesting Features of Delphi XE**

- **Native Development that gets the job done** – Delphi XE allows developers to develop cutting-edge software faster than ever before. Now with over 500 included components in the box, enhanced multi-tier development, more enterprise databases supported out of the box, subversion integration and a wealth of productivity features, Delphi XE delivers on the promise of doing more development in less time, and with no surprises.

- **Built-in Source Code Management** – Integration into the IDE that allows full control of the Subversion repository.

- **Built-in Cloud Development**
  - Build applications that use the Windows Azure cloud platform with integrated components and libraries.
  - Deploy applications to the Amazon EC2 cloud infrastructure with a few simple mouse clicks.

- **Innovative expanded Tool Chest for optimized development** – Now developers have the latest tools readily available from integrated profiling and logging, to enhanced file compare functionality, and added build automation and management of projects.

- **DataSnap Multi-tier Development** – develop multi-tier applications with ease using industry standard communications and interfaces for the fastest business layer.

- **Productivity enhancements throughout the product** – enhancements to make it easier for developers to get their job done in shorter amounts of time.
KEY FEATURES AND BENEFITS FOR DEVELOPERS

• Built on an excellent IDE framework that supports the latest in development practices including two-way rapid graphical user interface development, refactoring, UML (Unified Modeling Language) support, static code audits and metrics, integrated debugger and so much more.

• Over 500 components included in the box with built-in touch support that allow you to assemble the application rapidly.

• Advanced DataSnap servers with Delphi XE for cutting-edge industry standard middle-tier development.

• Flexible access to DataSnap servers using Delphi, C++, JavaScript, and PHP to connect your middle-tier business logic anywhere your requirements demand.

• Integrated Subversion in Delphi allows developers to manage their source code with a few clicks of the mouse.

• Native web development – with the included update of VCL for the Web (XI) edition. Now it is even easier to build innovative native web applications with Delphi.

• Find and isolate performance problems faster than ever before with the integrated AQtime Profilers and find those tricky bugs with advanced logging with CodeSite Express.

• Create a repeatable build process in seconds using the included FinalBuilder Embarcadero Edition, with many included actions that allow you to take full control of your applications build process.

• Target multiple Microsoft Windows OS platforms from single source including Windows 2000, XP, Vista 32/64, Windows Server 2008, and Windows 7 32/64.

QUICK LINKS TO PRODUCT INFORMATION

• Delphi XE Product Page
• Delphi XE Datasheet
**DELPHI XE GIVES YOU THE RIGHT TOOLS FOR ANY JOB**

Delphi XE is the fastest way to deliver ultra-rich, ultra-fast Windows applications. Dramatically reduce coding time and create applications 5x faster with component-based development and a fully visual two-way RAD IDE. Speed development across multiple Windows and database platforms – like GUI desktop applications, interactive touchscreen, kiosk, and database-driven multi-tier, cloud, and Web applications.
**WHAT TYPES OF APPLICATIONS ARE CREATED WITH DELPHI XE?**

Mission-critical enterprise applications to complex desktop applications, to some of the most used packaged software in the world. Delphi XE unlocks the potential of the developer’s imagination and allows them to focus on the solution and not have to worry about the technology. Delphi XE comes with over 500 components and works with nine enterprise database. for a single source approach that will run on the Windows platforms 2000 through Windows 7.

Delphi has a rich heritage in native Windows applications. Native is the best way to go for applications that require speed, such as visualizing data, controlling hardware in real time, or manipulating 3D objects. Delphi is an ideal development solution for applications where response time matters such as financial modeling, gaming, imaging, medical equipment, point-of-sale (POS) systems, and more. Native code is well suited for building applications with rich user interfaces, packaged applications, and apps that require interaction with hardware and devices – such as driver UIs, healthcare equipment, science and engineering systems, and manufacturing automation.

Because Delphi generates compact standalone Windows executables without large and cumbersome runtimes like .NET and Java, it is also well suited and extremely popular with ISVs and MicroISVs for building packaged software from large high end CAD and GIS systems down to inexpensive and free utilities such as Skype. as well as some of the most downloaded Windows applications.
**PROJECT DEVELOPMENT**

After installing Delphi XE, you will have the opportunity to decide what type of development you want to do.

- Rich GUI client applications
- Advanced multi-tier servers
- Web services based server
- Cloud-enabled servers
- Web-based applications
- And many others

**PROJECTS IN DELPHI XE**

Once you start Delphi XE, the first thing you will need to do is create a project.

This can be accomplished by clicking the *File|New|Other* menu item. This is the updated object gallery and it displays all of the different projects that can be created. Since you are reviewing the Architect edition, all features are turned on and available for review. The gallery is a simple layout and I will give a brief description of the type of standard projects.
NATIVE APPLICATION TYPES YOU CAN BUILD WITH DELPHI

The statement “if you can dream it, you can build it with Delphi” is not far from the truth. This means if you want to build a native application that runs on the Windows platform, there is not much stopping you besides the developer imagination. Delphi XE / Delphi in general stands for two different things, one Delphi is a platform for development, and the second is that Delphi sometimes is used as the language, which in reality is really Object Pascal.

Remember there are many differences between Delphi’s (Object Pascal) language and C++, but many developers find that Delphi syntax is easier to learn and has less ways to get in trouble. It could be argued on both sides, however the great news is that with both Delphi and C++Builder we give the choice to the developer to pick the best language for them to produce cutting-edge applications. Keep in mind that the big difference between Delphi and C++Builder is the language, Delphi is Object Pascal again and C++Builder is C++. Below is an example of a Delphi Method.

Delphi:
Function TServerMethod2.ReverseString(Value: string):String
  Begin
    Result := StrUtils.ReverseString(Value);
  End;

**Note:** Remember the “Begin” is the same as “{” and the “end” is the same as “}” and all real languages end with a semicolon.

The type of application you build depends on the business requirements or specifications. If the requirement is to build a rich GUI based application, or an application that interacts with various databases, that is no problem for either environment.

There are a few that I would like to highlight as special in this release of Delphi XE.

- DataSnap is a server-based technology that allows developers to quickly build a middle-tier service layer. This layer can expose any combination of business processing and database/information manipulation. Plus, it has the added bonus of having a wide-open client connector architecture.

![DataSnap Diagram]

As you can see from the above graphic, DataSnap brings information together with processing and exposure to various client types including Delphi, C++Builder, .NET, PHP, and JavaScript.

Developers can create a simple DataSnap server in either Delphi by clicking the *File|New|Other|DataSnap Server* and picking the DataSnap REST Server, Follow the wizard through its steps and at the end of the process the user will have a running server. Save and run the server.
Click the Start button and open the browser. A new browser will be started and the ability to test reverse string will be presented. Users can also click the ServerMethods link for further exploration.

- Windows Azure is an Internet-scale cloud services platform hosted through Microsoft data centers. (taken from Microsoft) Delphi supports the Windows Azure Storage services with both a library and a set of components to manage storage. These components allow for full interaction with the Azure Storage services that include Tables, Blobs, and Queues. You need to have a Windows Azure account before these can be used.

To develop with these components, developers drop a TAzureConnectionString and set the account credentials, then drop a management component on a form and link the components together and run. You should be able to right-mouse click in the management component and create, update, and delete items from the Blobs, Queues, or Tables.

**DEPLOYING APPLICATIONS TO AMAZON’S EC2 CLOUD INFRASTRUCTURE**

Once you have created an application, it may now need to be deployed on some hardware. Using Amazon’s virtualized hardware is a very economical way to get hardware. You need to set up an account with Amazon EC2 and create a machine instance (Windows machine type required), and then in the Project|Deploy to Cloud menu you will be able to click through to deploy.
This will deploy any number of files out to any number of machines the developer has running on Amazon.

**ADDITIONAL ADVANCED TOOLS IN DELPHI**

Delphi XE includes many features beyond those covered in this Reviewer’s Guide. There are a few that deserve special mention, just to remind you, the reviewer, of the power of these products and the capabilities they have as part of the development environment.

- **UML Modeling** – in all levels of Delphi XE, developers have UML code visualization capabilities, which gives them the ability to reverse-engineer any code and see a model. If the model or code is changed, the model and code are kept in sync. Additional modeling capabilities are available in the Enterprise and Architect Editions including automatic sequence diagrams, pattern support, and model-level refactoring.
• **Static Code Audits** – In all levels of the products, developers have code audits to review code and flag anomalies in the code. In the Enterprise and Architect edition, there are over 200 included audits.
• **Static Code Metrics** – in all levels of the products, developers have the code metrics, which reviews the complexity and measures the health of the object diagram. In the Enterprise and Architect editions, there are over 80 included metrics.

```
Weight Of a Class (WOC)
```

Description:
WOC is the number of methods in the interface of the class, divided by the total number of interface members. Inherited members are not counted. The members that belong to the interface of the class are the public, non-inherited methods and fields of a class.

• **Integrated Unit Testing** – In all levels of the products, we have integrated unit testing based on the xUnit testing framework. DUnit integration will stub out the implementation so all the developer has to do is write the basic test logic.
Using the extended Toolbox with Delphi XE

Also included in the products is a set of advanced tools to help developers be more successful. These additional features include:

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<thead>
<tr>
<th>Product</th>
<th>Company</th>
<th>Area of use</th>
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<tbody>
<tr>
<td>Rave Reports</td>
<td>Nevrona</td>
<td>Reporting</td>
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<tr>
<td>InterBase Express (IBX)</td>
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<td>Database app development with the InterBase database</td>
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<tr>
<td>TeeChart</td>
<td>Steema</td>
<td>Charting</td>
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<tr>
<td>VCL for the Web (IntraWeb XI)</td>
<td>AtoZed</td>
<td>Native Internet</td>
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<td>Subversion Client and Server</td>
<td>CollabNet</td>
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<td>Beyond Compare</td>
<td>Scooter Software</td>
<td>Difference engine</td>
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<tr>
<td>AQtime</td>
<td>SmartBear (formerly AutomatedQA)</td>
<td>Profilers</td>
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<td>FinalBuilder</td>
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<td>CodeSite</td>
<td>Raize Software</td>
<td>Advanced logging</td>
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<td>PerthWeb</td>
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<td>IP*Works</td>
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<td>Internet components</td>
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WORKING WITH DATABASES AND DATA SOURCES

INTERBASE DEVELOPER EDITION

Delphi XE ships with a Developer Edition of InterBase, Embarcadero’s native, cross platform Relational Database Management System (RDBMS). InterBase Developer Edition allows developers five connections to the server hosted on their local machine for the purpose of developing applications that use InterBase. Once the application is developed, developers can purchase deployment licenses from Embarcadero.

OTHER DATABASES AND DATA SOURCES

Delphi has built-in support for BDE, dbGo, dbExpress database architectures. This means that if you need connection to any of the popular enterprise databases on the market, you can easily do so.

BASIC INTRODUCTION

Keep in mind that this reviewer’s guide is a starting point on the road to reviewing Delphi XE. There are tons of features in each of the products. This guide barely scratches the surface. There is a wealth of additional information, videos, walkthroughs, and guides to help you get the most out of the product. Please review the full feature matrix, the Delphi XE product page and the Embarcadero Developer Network for the latest on the product.

Embarcadero Technologies, Inc. is the leading provider of software tools that empower application developers and data management professionals to design, build, and run applications and databases more efficiently in heterogeneous IT environments. Over 90 of the Fortune 100 and an active community of more than three million users worldwide rely on Embarcadero’s award-winning products to optimize costs, streamline compliance, and accelerate development and innovation. Founded in 1993, Embarcadero is headquartered in San Francisco with offices located around the world. Embarcadero is online at www.embarcadero.com.