

# Delphi Developer Days 2016 Session Descriptions

## Chicago ▪ Copenhagen ▪ Frankfurt ▪ Baltimore

### Day 1

#### **The Art of Concurrent Programming**

*Cary Jensen and Nick Hodges*

Some features can only be implemented correctly using additional threads of execution. In addition, some of Delphi's technologies, such as Web Broker and DataSnap, are inherently multithreaded. In either case, additional threads of execution add complexity that must be managed. This talk discusses the challenges of concurrent execution, and demonstrates the art of synchronizing access to shared resources.

#### **The Parallel Programming Library**

*Nick Hodges and Cary Jensen*

The Parallel Programming Library, introduced in Delphi XE7, provides you with a number of constructs for executing tasks concurrently. This talk explores the power of the Parallel Programming Library, and shows you how to maximize performance without having to manage the low-level details of thread lifecycle.

#### **Preventing and Fixing Coupled Code**

*Cary Jensen and Nick Hodges*

Code coupling, or inter-unit dependencies, are an essential part of our everyday applications. However, if not managed properly, coupled code can lead to a tangled mess of dependant units that unnecessarily bloat executables with unwanted content. In this talk we look at the dangers of code coupling, and share with you techniques for preventing or removing these unwanted dependencies.

#### **Using Dependency Injection**

*Nick Hodges and Cary Jensen*

Probably the most important part of writing clean code is writing decoupled code. One key to writing decoupled code is a technique called "Dependency Injection". This talk describes the various types of Dependency Injection, how to implement them, as well as the proper use of a Dependency Injection container.

#### **Debugging Deep Dive, Part 1**

*Cary Jensen and Cary Jensen*

Debugging is an essential skill in every developer's toolbox, and this talk is designed to ensure that you are taking advantage of all of the tools at your disposal. From breakpoints with side effects to debugger visualizers, you are sure to learn something new that will make you more productive.

#### **Debugging Deep Dive, Part 2**

*Nick Hodges and Cary Jensen*

The debugging deep dive continues by exploring a number of advanced Delphi debugging techniques.

#### **Roundtable Q&A with Nick, Cary, and Embarcadero RAD Studio folks**

*David I and Jim McKeeth, Embarcadero: Chicago and Baltimore*

We end Day 1 with folks from Embarcadero online, sharing their news and answering your questions.

## Day 2

### **Best Practices in Professional Development**

*Cary Jensen and Cary Jensen*

Cary and Nick share their experience and insight about the tools and techniques that make a good developer great and a development team successful. You may not agree with them, and they may not agree with each other, but you are guaranteed to come away thinking about how you approach the art of software development.

### **Patterns in Delphi**

*Nick Hodges*

Patterns are proven, common ways to solve particular problems. In this talk, we'll use Delphi to illustrate a number of Design Patterns, including the Observer, Decorator, Factory, Command, and Adapter patterns.

### **Understanding FireDAC**

*Cary Jensen*

Highly configurable, and packed with advanced features, FireDAC, Delphi's newest data access framework, has quickly become the data access framework of choice. This begins by showing you how to connect to your database of choice, and explores many of the advanced features that you will gain by moving to FireDAC.

### **Unit Testing**

*Nick Hodges*

No other thing will improve the quality of your code faster than unit testing. In this presentation we'll discuss unit testing, its benefits, and the proper way to do it. This talk covers the two main frameworks used in Delphi: DUnit and DUnitX.

### **Creating and Consuming JSON**

*Cary Jensen*

JSON, or JavaScript Object Notation, has overtaken XML (the eXtensible Markup Language) as the format of choice for inter-process communication. This talk begins with a comparison of XML and JSON, and continues by exploring the classes and tools available in Delphi for reading and writing JSON.

### **Advanced Language Features**

*Nick Hodges*

Over the last few years, Delphi's Object Pascal language has added a number of new features. This presentation will cover Anonymous Methods, Parameterized Types (Generics), Attributes, Enumerators and more.

### **Building Windows Services**

*Cary Jensen*

A Windows service is an automated application that runs without direct user intervention, providing a service to other applications. This presentation begins with a discussion of the types of solutions best suited to Windows services. It continues with a step-by-step demonstration of how to construct a Windows service, and concludes with a look at techniques that give your Windows service that professional touch.

### **Delphi Tips, Tricks, and Techniques**

*Nick Hodges and Cary Jensen*

A perennial favorite, Nick and Cary share with you some of their favorite, and in some cases, little known features that will improve your productivity, or add valuable new features to your code.