

CAMPAIGN FOR CODE 2016 ★ VISUAL STUDIO LIVE!

# CODE

Las Vegas

## WE CAN BELIEVE IN

**MARCH 7-11, 2016**

BALLY'S HOTEL & CASINO



**Visual Studio LIVE!**  
EXPERT SOLUTIONS FOR .NET DEVELOPERS

### DEVELOPMENT TOPICS INCLUDE:

- ALM / DevOps
- ASP.NET
- Cloud Computing
- Database & Analytics
- JavaScript / HTML5 Client
- Mobile Client
- Modern App Development
- UX / Design
- Visual Studio / .NET
- Windows Client

**BONUS  
CONTENT!**

Presented in  
Partnership with  
**Magenic**

**ModernApps LIVE!**  
MOBILE, CROSS-DEVICE & CLOUD DEVELOPMENT



REGISTER NOW AT  
[VSLIVE.COM/LASVEGAS](http://VSLIVE.COM/LASVEGAS)

EVENT PARTNERS



PLATINUM SPONSOR



SUPPORTED BY



PRODUCED BY



CONNECT WITH VISUAL STUDIO LIVE!

#vslive



# CONTENTS

**3**

[A Message from the Conference Co-Chairs](#)

**4**

[Ten Reasons to Attend](#)

**5**

[Activities & Events](#)

**6**

[Agenda At-a-Glance](#)

**9**

[Workshops](#)

**12**

[ALM / DevOps](#)

**13**

[ASP.NET](#)

**15**

[Cloud Computing](#)

**17**

[Database and Analytics](#)

**19**

[JavaScript / HTML5 Client](#)

**21**

[Mobile Client](#)

**23**

[UX / Design](#)

**23**

[Visual Studio / .NET](#)

**25**

[Windows Client](#)

**26**

[Modern Apps Live!](#)

**29**

[Advisory Board](#)

**31**

[Speakers](#)

**35**

[Sponsors & Exhibitors](#)

**37**

[Venue & Travel](#)

**38**

[Registration Packages & Pricing](#)



## A MESSAGE FROM THE CONFERENCE CO-CHAIRS

**AS USUAL, OUR INDUSTRY AND THE MICROSOFT DEVELOPMENT PLATFORM IS IN A CONSTANT STATE OF CHANGE.** Microsoft continues its rapid evolution of Windows (PC, tablet, and mobile), even as it adds support for cross-platform Web applications and partners with Xamarin to support native applications too. Add to that the pace of change in Web technologies, Microsoft's ongoing commitments to JavaScript / TypeScript and its continuous stream of enhancements to Azure, and the whole stack continues to improve and transform.

Deployment of Windows 10 is well underway in the user base and Visual Studio 2015 is rapidly becoming the default tool for most Microsoft developers. Add to this the ongoing enhancements to the ALM stack with Team Foundation Server 2015 and Visual Studio Team Server in the cloud.

We think there's a great way to digest these changes and seize their collective opportunity, and that's to hear about them directly from the finest expert speakers in the business.

We're Andrew Brust, Rockford Lhotka, and Brian Randell, and as Conference Co-Chairs for Visual Studio Live! Las Vegas, we'd like to personally invite you to join us this March at Bally's Hotel and Casino in Las Vegas, NV, where we'll have some of the best content and speakers that you'll find at a technical conference.

We've put together an amazing lineup of sessions on: Windows Client, HTML5/JavaScript, Mobile Client, ALM/DevOps, Database and Analytics, Cloud Computing, UX/Design and more.

We've also got coverage on technologies like Microsoft Visual Studio 2015/.NET 4.6, ASP.NET 5, Web API, Single Page Web Apps, WPF, Xamarin, and TypeScript. Then there's our workshop content, covering WCF and Web API, agile DevOps, SQL Server for developers, ASP.NET 5, business apps on the Universal Windows Platform, and mobile development. These sessions and workshops drill deep into the new subjects you need to master and the fundamentals that are always important.

Plus, Visual Studio Live! is once again co-hosted with Modern Apps Live!, which means you'll have full access to the great content focused on cross-platform mobile, cloud-based, and agile development covered by the Modern Apps Live! speakers. All in addition to the leading-edge and relevant developer education you've come to expect from Visual Studio Live!

Microsoft, and its developer technologies are at a crossroads, and you've got to keep up with the changes. At such a pivotal time, Internet-based content isn't enough. Find a way to get to Visual Studio Live! Las Vegas and get live content and interaction with independent experts. Your career deserves nothing less.



Andrew Brust  
Senior Director, Datameer  
Visual Studio Live! Conference Co-Chair



Rockford Lhotka  
CTO, Magenic  
Visual Studio Live! Conference Co-Chair



Brian A. Randell  
Partner, MCW Technologies  
Visual Studio Live! Conference Co-Chair



# TEN

**REASONS TO ATTEND  
Visual Studio Live!  
Las Vegas**

## 10

### **OUR PLATFORM? CONTENT, AND LOTS OF IT.**

We offer 5 full days of educational sessions on hot topics like Modern App Development, WCF, Web API, ASP.NET, AngularJS, ALM, Visual Studio 2015, SQL Server, and more!



## 9

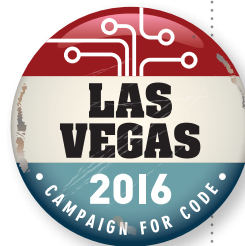
### **GET THE INSIDE SCOOP —**

Get up to speed on what's happening on the developer landscape now, and learn what's coming next to get out ahead of the competition.

## 8

### **SHAKE SOME HANDS.**

From the networking breakfasts, to evening activities, to just sitting next to someone new at lunch, you'll have the unique chance to learn from and share with your peers, all week long!



## 7

### **WE'LL TAKE ALL YOUR QUESTIONS NOW.**

What separates Visual Studio Live! from other conferences (and internet-based training) is the unparalleled access to the speakers. Get your questions answered in-between sessions, during meals and at fun evening events.

## 6

### **EXAMINE CORE ISSUES WITH FULL-DAY WORKSHOPS —**

Get two days (pre and post conference) of education on the hottest topics on the campaign trail.

## 5

### **READY. SET. DEBATE!**

Our speakers include both unbiased industry experts and Microsoft insiders, so you'll hear every side of the story on the most recent software and industry updates.

## 4

### **WE STAND BY OUR NAME — VISUAL STUDIO LIVE!**

In August of 2015, Microsoft released Visual Studio 2015. 2015 is an exciting release with new editions with tons of new features, not to mention Microsoft's exciting venture into more open source and cross-platform development. We'll give you the information you need to understand and leverage the power of .NET, Visual Studio, ALM, and VSO today and into the future.

## 3

### **IT'S STILL VEGAS, BABY!**

Code by day and enjoy all the Strip has to offer at our headquarters, Bally's Hotel & Casino.



## 2

### **THE CHOICE IS CLEAR. OR IS IT?**

With over 75 sessions and workshops in a variety of tracks, you're free to choose what sessions you attend and when. You aren't bound to any one session or track! Sometimes it's hard to choose, though, so we provide all conference proceedings and any shared code for all the sessions free to attendees!

## 1

### **CAMPAIGN FOR CODE.**

We're here to serve you. For over 23 years, Visual Studio Live! has been THE trusted resource for .NET developer-focused education!



## THE FUN STUFF: VISUAL STUDIO LIVE! LAS VEGAS EVENTS

**YOUR ATTENDANCE AT VISUAL STUDIO LIVE! LAS VEGAS** is about learning from your peers as well as the experts; make the most of your time with us and add these events to your itinerary!

### DINE-A-ROUND DINNER

Monday, March 7

7:00pm – 9:00pm

Join other conference attendees and speakers for a casual, no-host dinner and make a few new friends while enjoying the fun and delicious restaurants in or around Bally's Hotel & Casino. This is your opportunity to meet fellow attendees and start friendships that can last for the week or even longer. Attendees can break into smaller groups based on where everyone wants to dine and head off to dinner. Everyone is responsible for their own dinner.

### WELCOME RECEPTION

Tuesday, March 8

4:15 – 5:30pm

All conference attendees are invited to celebrate the start of Visual Studio Live! Las Vegas at the Welcome Reception. Join us in the expo area to network with fellow conference attendees and speakers, talk with the event sponsors, enjoy complimentary drinks and hors d'oeuvres, and participate in the conference raffle.

### BIRDS OF A FEATHER LUNCH

Wednesday, March 9

12:00 – 1:00pm

Enjoy lively lunchtime discussions by joining one of our table topic conversations. Tables will have a designated topic to help start discussions and interact with your fellow attendees. You may even learn a new trick or two or some great tips to take back to the office.

We will also have designated speaker tables— noted with the speaker's name. Join your favorite speaker for a lunchtime discussion or just to ask questions or clarify anything from their sessions.



Dine-A-Round Dinner



Welcome Reception



Birds of a Feather Lunch

## AGENDA AT-A-GLANCE

ALM / DevOps	ASP.NET	Cloud Computing	Database and Analytics	JavaScript / HTML5 Client	Mobile Client	UX/Design	Visual Studio / .NET	Windows Client	Modern Apps Live!
--------------	---------	-----------------	------------------------	---------------------------	---------------	-----------	----------------------	----------------	-------------------

START TIME	END TIME	Pre-Conference Workshops: Monday, March 7, 2016 (Separate entry fee required)							
7:30 AM	9:00 AM	Pre-Conference Workshop Registration • Coffee and Morning Pastries							
9:00 AM	1:00 PM	<b>M01</b> Workshop: Service Oriented Technologies—Designing, Developing, & Implementing WCF and the Web API - Miguel Castro	<b>M02</b> Workshop: Agile DevOps - Brian Randell	<b>M03</b> Workshop: Developer Dive Into SQL Server 2016 - Leonard Lobel	<b>M04</b> Workshop: Modern App Technology Overview—Android, iOS, Cloud, and Mobile Web - Allen Conway, Brent Edwards, Kevin Ford, & Nick Landry				
1:00 PM	2:00 PM	Lunch @ Le Village Buffet, Paris Las Vegas							
2:00 PM	6:00 PM	<b>M01</b> Workshop Continues	<b>M02</b> Workshop Continues	<b>M03</b> Workshop Continues	<b>M04</b> Workshop Continues				
7:00 PM	9:00 PM	Dine-A-Round Dinner							

START TIME	END TIME	Day 1: Tuesday, March 8, 2016							
7:00 AM	8:00 AM	Registration • Coffee and Morning Pastries							
8:00 AM	9:00 AM	Keynote: To Be Announced							
9:15 AM	10:30 AM	<b>T01</b> Developer Productivity in Visual Studio 2015 - Robert Green	<b>T02</b> Angular 101 - Deborah Kurata	<b>T03</b> Introduction to Next Generation of Azure Compute—Service Fabric and Containers - Vishwas Lele	<b>T04</b> Technical Debt—Fight It with Science and Rigor - Brian Randell	<b>T05</b> Defining Modern App Development - Rockford Lhotka			
10:45 AM	12:00 PM	<b>T06</b> How to Scale Entity Framework Apps with Distributed Caching - Iqbal Khan	<b>T07</b> Angular 2.0: A Comparison - Deborah Kurata	<b>T08</b> Docker and Azure - Steve Lasker	<b>T09</b> Building Windows 10 Line of Business Applications - Robert Green	<b>T10</b> Modern App Architecture - Brent Edwards			
12:00 PM	1:00 PM	Lunch							
1:00 PM	1:30 PM	Dessert Break • Visit Exhibitors							
1:30 PM	2:45 PM	<b>T11</b> Native Mobile App Development for iOS, Android and Windows Using C# - Marcel de Vries	<b>T12</b> ASP.NET 5 in All its Glory - Adam Tuliper	<b>T13</b> Knockout In 75 Minutes (Or Less...) - Christopher Harrison	<b>T14</b> Exploring T-SQL Enhancements: Windowing and More - Leonard Lobel	<b>T15</b> ALM with Visual Studio Online and Git - Brian Randell			
3:00 PM	4:15 PM	<b>T16</b> Getting Started with Hybrid Mobile Apps with Visual Studio Tools for Cordova - Brian Noyes	<b>T17</b> MVC 6 - The New Unified Web Programming Model - Marcel de Vries	<b>T18</b> Building "Full Stack" Applications with Azure App Service - Vishwas Lele	<b>T19</b> Geospatial Data Types in SQL Server - Leonard Lobel	<b>T20</b> DevOps and Modern Applications - Dan Nordquist			
4:15 PM	5:30 PM	Welcome Reception							

Sessions and speakers subject to change.

Continued next page

## AGENDA AT-A-GLANCE (continued)

ALM / DevOps	ASP.NET	Cloud Computing	Database and Analytics	JavaScript / HTML5 Client	Mobile Client	UX/Design	Visual Studio / .NET	Windows Client	Modern Apps Live!
--------------	---------	-----------------	------------------------	---------------------------	---------------	-----------	----------------------	----------------	-------------------

START TIME	END TIME	Day 2: Wednesday, March 9, 2016							
7:30 AM	8:00 AM	Registration • Coffee and Morning Pastries							
8:00 AM	9:15 AM	<b>W01</b> Busy .NET Developer's Guide to Native iOS - Ted Neward	<b>W02</b> Getting Started with Aurelia - Brian Noyes	<b>W03</b> Exploring Microservices in a Microsoft Landscape - Marcel de Vries	<b>W04</b> Database Lifecycle Management and the SQL Server Database - Brian Randell	<b>W05</b> Reusing Logic Across Platforms - Kevin Ford			
9:30 AM	10:45 AM	<b>W06</b> Busy Developer's Guide to Mobile HTML/JS Apps - Ted Neward	<b>W07</b> Securing Single Page Applications - Brian Noyes	<b>W08</b> Breaking Down Walls with Modern Identity - Eric D. Boyd	<b>W09</b> JSON and SQL Server, Finally Together - Steve Hughes	<b>W10</b> Coding for Quality and Maintainability - Jason Bock			
11:00 AM	12:00 PM	General Session: To Be Announced							
12:00 PM	1:00 PM	Birds-of-a-Feather Lunch							
1:00 PM	1:30 PM	Dessert Break • Visit Exhibitors • Exhibitor Raffle @ 1:15pm (Must be present to win)							
1:30 PM	2:45 PM	<b>W11</b> Optimizing Applications for Performance Using the Xamarin Platform - Kevin Ford	<b>W12</b> An Introduction to TypeScript - Jason Bock	<b>W13</b> Real-world Azure DevOps - Brian Randell	<b>W14</b> Using Hive and Hive ODBC with HDInsight and Power BI - Steve Hughes	<b>W15</b> Start Thinking Like a Designer - Anthony Handley			
3:00 PM	4:15 PM	<b>W16</b> Leverage Azure App Services Mobile Apps to Accelerate Your Mobile App Development - Brian Noyes	<b>W17</b> Take a Gulp, Make a Grunt, and Call me Bower - Adam Tuliper	<b>W18</b> Lock the Doors, Secure the Valuables, and Set the Alarm - Eric D. Boyd	<b>W19</b> Introduction to Spark for C# Developers - James McCaffrey	<b>W20</b> Applied UX: iOS, Android, Windows - Anthony Handley			
4:30 PM	5:45 PM	<b>W21</b> Building Cross-Platform Apps using CSLA .NET - Rockford Lhotka	<b>W22</b> JavaScript for the C# (and Java) Developer - Philip Japikse	<b>W23</b> Managing Windows Azure with PowerShell - Mark Michaelis	<b>W24</b> Introduction to R for C# Programmers - James McCaffrey	<b>W25</b> Leveraging Azure Services - Brent Edwards			
7:00 PM	9:00 PM	Evening Out Event							

Sessions and speakers subject to change.

Continued next page

## AGENDA AT-A-GLANCE

ALM / DevOps	ASP.NET	Cloud Computing	Database and Analytics	JavaScript / HTML5 Client	Mobile Client	UX/Design	Visual Studio / .NET	Windows Client	Modern Apps Live!
--------------	---------	-----------------	------------------------	---------------------------	---------------	-----------	----------------------	----------------	-------------------

START TIME	END TIME	Day 3: Thursday, March 10, 2016							
7:30 AM	8:00 AM	Registration • Coffee and Morning Pastries							
8:00 AM	9:15 AM	<b>TH01</b> Building for the Internet of Things: Hardware, Sensors & the Cloud - Nick Landry	<b>TH02</b> Responsive Web Design with ASP.NET 5 - Robert Boedigheimer	<b>TH03</b> Unit Testing & Test-Driven Development (TDD) for Mere Mortals - Benjamin Day	<b>TH04</b> Effective Agile Software Requirements - Richard Hundhausen	<b>TH05</b> Building for the Modern Web with JavaScript Applications - Allen Conway			
9:30 AM	10:45 AM	<b>TH06</b> User Experience Case Studies—Good and Bad - Billy Hollis	<b>TH07</b> Tools for Modern Web Development - Ben Hoelting	<b>TH08</b> Unit Testing JavaScript - Ben Dewey	<b>TH09</b> Lessons Learned: Being Agile in a Waterfall World - Philip Japikse	<b>TH10</b> Building a Modern Android App with Xamarin - Kevin Ford			
11:00 AM	12:15 PM	<b>TH11</b> Pretty, Yet Powerful. How Data Visualization Transforms the Way We Comprehend Information - Walt Ritscher	<b>TH12</b> SASS and CSS for Developers - Robert Boedigheimer	<b>TH13</b> End-to-End Dependency Injection & Writing Testable Software - Miguel Castro	<b>TH14</b> Real World Scrum with Team Foundation Server 2015 & Visual Studio Online - Benjamin Day	<b>TH15</b> Building a Modern Windows 10 Universal App - Nick Landry			
12:15 PM	1:45 PM	Lunch @ Le Village Buffet, Paris Las Vegas							
1:45 PM	3:00 PM	<b>TH16</b> Exposing an Extensibility API for your Applications - Miguel Castro	<b>TH17</b> Hack Proofing your Web Applications - Adam Tuliper	<b>TH18</b> Async Patterns for .NET Development - Ben Dewey	<b>TH19</b> DevOps vs. ALM Different Measures of Success - Mike Douglas	<b>TH20</b> Panel: Decoding Mobile Technologies - Rockford Lhotka			
3:15 PM	4:30 PM	<b>TH21</b> UWP Development for WPF and Silverlight Veterans - Walt Ritscher	<b>TH22</b> Increase Website Performance and Search with Lucene.Net Indexing - Ben Hoelting	<b>TH23</b> Improving Quality for Agile Projects Through Manual and Automated UI Testing—NO CODING REQUIRED! - Mike Douglas	<b>TH24</b> Use Visual Studio to Scale Agile in Your Enterprise - Richard Hundhausen	<b>TH25</b> Analyzing Results with Power BI - Scott Diehl			

START TIME	END TIME	Post-Conference Workshops: Friday, March 11, 2016 (Separate entry fee required)							
7:30 AM	8:00 AM	Post-Conference Workshop Registration • Coffee and Morning Pastries							
8:00 AM	12:00 PM	<b>F01</b> Workshop: Upgrading Your Skills to ASP.NET 5 - Mark Michaelis	<b>F02</b> Workshop: Building Business Apps on the Universal Windows Platform - Billy Hollis	<b>F03</b> Workshop: Creating Awesome 2D & 3D Games and Experiences with Unity - Adam Tuliper	<b>F04</b> Workshop: Modern Development Deep Dive - Jason Bock, Allen Conway, Brent Edwards & Kevin Ford				
12:00 PM	1:00 PM	Lunch							
1:00 PM	5:00 PM	<b>F01</b> Workshop Continues	<b>F02</b> Workshop Continues	<b>F03</b> Workshop Continues	<b>F04</b> Workshop Continues				

Sessions and speakers subject to change.



# PRE-CONFERENCE WORKSHOPS **MONDAY, MARCH 7, 9:00am – 6:00pm**

Choose from a range of content and topics by expert presenters with Visual Studio Live! Las Vegas' Pre- and Post-Conference full day workshops.

## ■ **M01 Workshop: Service Oriented Technologies—Designing, Developing, & Implementing WCF and the Web API**

*Intermediate*

**MIGUEL CASTRO**

Service Oriented Architectures are the best way to ensure that today's applications are extensible, maintainable, and scalable in a volatile world filled with ever-changing demands. Decomposing your systems into smaller, loosely coupled, and more autonomous components ensures that your application can continue to grow or change without having to continuously undergo rewrites or redesigns. But with great power comes great responsibility (don't say it), and the need for great technology and tooling. WCF is the heart of Microsoft's stack for building connected systems and loosely coupled components. ASP.NET Web API is the latest addition to this stack in a world where REST and its interoperability power becomes more necessary and in more demand. Come learn both of these technologies and how to properly use them, apart and together. You'll learn what a Service Oriented Architecture is and how to use WCF & Web API from the ground up. You'll learn these technologies together, side-by-side and how to integrate them into applications whose clients may vary from WPF to ASP.NET MVC to Windows 8 Tablet apps. You'll also hear about setup and consumption of your services end-to-end, showing you how and where to properly set up your projects, properly use proxies, contracts, and even REST URL design. You'll have the knowledge of how to use service technology and to properly implement it in a clean and elegant fashion.

## ■ **M02 Workshop: DevOps in a Day**

*Intermediate*

**BRIAN RANDELL**

DevOps is an emerging trend that promises to increase the flow of value to customers. Business is faster with fierce competition. Agility affects everyone in your organization, from the executives to the data center and marketing - time-to-market is key. In this workshop, Brian will show you, end-to-end, how you can define a DevOps practice in your organization regardless of the tools you use. Then, he'll take you through the process of using Visual Studio Online and Visual Studio 2015 to take an application through the planning, development, testing, deployment, and feedback stages using the latest tools and techniques. You'll see how automation is king when it comes to an effective DevOps practice.

You will learn:

- What is DevOps really and how to become an agent of change
- Key steps to embracing DevOps and automation
- What the state of the art in tooling is and how you can get started

## ■ **M03 Workshop: Developer Dive Into SQL Server 2016**

*Intermediate*

**LEONARD LOBEL**

This full-day workshop will get you up to speed on powerful features for developers in SQL Server 2016. Lenni will pull no punches as he rips through the most important SQL Server programmability points in this intensive demo-packed tour.

**Part 1—T-SQL Features.** We start with the many enhancements made to T-SQL. Learn how to use table-valued parameters to marshal entire sets of rows across the network from client to server, and to pass them between your stored procedures and UDFs. Find out about MERGE, a powerful DML statement that combines the capabilities of four (or more) separate operations, and INSERT OVER DML, which enhances your ability to capture change data from the OUTPUT clause of any DML statement. Work with the latest date and time data types, which include support for time zone awareness. Then learn about the newest T-SQL enhancements in SQL Server 2012, such as windowing (OVER clause) enhancements, running and sliding aggregates, 22 new functions, the THROW statement, server-side paging, the SEQUENCE object, and new metadata discovery techniques.

**Part 2—What's New in SQL Server 2016.** Next we'll explore many of the latest SQL Server features introduced in SQL Server 2016. Discover new security features such as dynamic data masking, row-level security, and always encrypted. Other innovative capabilities include "stretch" database (allow select tables in an on-premises database to be transparently relocated in Azure SQL Database), temporal data (enable "time travel" to access data as it existed at any point in time), and integrated JSON support. You'll also learn about Polybase (access Hadoop and Azure

# PRE-CONFERENCE WORKSHOPS (continued)

Blob Storage with T-SQL), QueryStore (maintain query plan history and performance data), and R integration (an open source data science language).

**Part 3—Beyond Relational.** Then we'll examine the powerful "beyond relational" features, including the latest additions in SQL Server 2012. These features will get you thinking outside the box with respect to the types of data that can be managed by a relational database system. Learn how to use the hierarchyid data type to cast a hierarchical structure over any relational table. Dig into FILESTREAM and FileTable to discover how you can finally enjoy the native ability to store large binary objects in the file system transparently. We'll also cover the geospatial data types that enable you to integrate location-intelligence into the database, and build several location-aware applications on top of these new data types. We'll also cover the rich XML support provided by the relational engine, including XSD, XPath, and XQuery.

**Part 4—In-Memory OLTP.** Next we'll move on to with the new in-memory OLTP capabilities (code name "Hekaton") added in SQL Server 2014. Learn how to achieve impressive performance gains (up to 30x!) by identifying those tables that can improve performance simply by implementing them as memory-optimized tables in the database. These tables are fully durable and function as ordinary tables, but do not require the same latching and locking mechanisms as disk-based tables, which boosts performance significantly. You will also see how to create natively compiled stored procedures (which actually converts T-SQL to C and then compiles to a DLL) to achieve even greater performance when accessing memory-optimized tables.

**Part 5—Enterprise Features.** We'll wrap up with powerful enterprise-level data warehousing and security features including Change Data Capture, SQL Server Audit and Transparent Data Encryption. With Change Data Capture (CDC), you can monitor and record changes made to transactional tables without requiring any application changes or resorting to triggers. Enabling Transparent Data Encryption (TDE) automatically encrypts the entire database in the background, without increasing database size, and without requiring any code. And with SQL Server Audit, virtually any action taken by any user can be recorded for auditing in either the file system or the Windows event log.

You'll learn a ton of new SQL Server features in this information-packed day!

---

## ■ M04 Workshop: Modern App Technology Overview—Android, iOS, Cloud, and Mobile Web

*Intermediate*

ALLEN CONWAY, BRENT EDWARDS,  
KEVIN FORD, & NICK LANDRY

If you haven't built apps for iOS (iPhone, iPad) or Android with Xamarin, Windows Universal Platform Apps (Windows10) Microsoft Azure, TypeScript, or AngularJS, this workshop is for you. This workshop is designed as a crash course for beginners who want to understand the basics of these technologies. We highly recommend it for Modern Apps Live! attendees because the content in the later conference sessions assumes you have at least some understanding of the technologies presented in this session. When you leave, you'll have an understanding of the development options and core techniques for Xamarin (iOS, Android), TypeScript and AngularJS, Universal Windows Apps, and Microsoft Azure so you'll be ready to build compelling modern apps.

# POST-CONFERENCE WORKSHOPS **FRIDAY, MARCH 11, 8:00AM – 5:00PM**

## ■ F01 Workshop: Upgrading Your Skills to ASP.NET 5

*Introductory / Intermediate*

**MARK MICHAELIS**

Are you ready for the brave new world of ASP.NET 5 but have only barely scratched the surface? This post-conference workshop will jumpstart your development in ASP.NET 5, upgrading your skills into a new platform and paradigm.

Workshop Agenda:

- Why did my cheese move?
- Understanding the new project architecture and structure
- MVC 6 and what makes it different
- Leveraging Web API in ASP.NET 5
- Deploying ASP.NET 5
- What are Bower, Grunt, and Task Runner and how do I use them?
- ASP.NET 5 Internals: from CLRs, hosting models, DNX, and more
- MVC 6 with Entity Framework 7

Attend this workshop to jumpstart your ASP.NET 5 development, and catapult you to immediate productivity instead of wallowing in the surprise of change.

## ■ F02 Workshop: Building Business Apps on the Universal Windows Platform

*Introductory / Intermediate*

**BILLY HOLLIS**

Microsoft is betting big on their Universal Windows Platform (UWP). Business apps for desktop, tablet, and phone apps for Windows 10 can all be done on the UWP, and XAML is the primary markup language. This workshop contains what you need to get started, even

if you have limited exposure to XAML. You'll start with XAML basic concepts, including layout with the new Windows 10 elements. Data binding will be covered, including the new x:Bind capability in Windows 10. Then you'll move on to templating, app navigation, responsive design, deployment to the Windows store, additional deployment options, Visual Studio changes for Windows 10 development, and other essential concepts to write your first Windows 10 application.

You will learn:

- Get an entry point to key XAML technologies
- The differences between Universal Apps XAML vs. older versions
- Strategy for architecting, developing, and deploying UWP apps

## ■ F03 Workshop: Creating Awesome 2D & 3D Games and Experiences with Unity

*Introductory / Intermediate*

**ADAM TULIPER**

Unity is the premier advanced platform for developing stunning 2D and 3D applications for all major platforms. Microsoft and Unity have partnered to provide first class support in the Unity platform for Windows 10 for free to developers, rounding out support for every major platform.

This workshop will take you hands on through understanding the essential concepts in a gaming engine, such as textures, meshes, normals, vectors, shaders, and more. You will then write code and use tools to create both 2D and 3D apps that will simply amaze you.

We'll also work through the basics of Unity, the UI, assets, code, ways to develop, and some simple but powerful game techniques to get up and running fast with Unity and start creating amazing experiences you didn't think were possible.

Finally you will learn how to package various platform specific builds in Unity (which btw supports 21+ platforms).

You will learn:

- The core concepts used in game development
- The architecture of Unity and how to code for it
- How to write both 2D and 3D games/experiences in Unity

## ■ F04 Workshop: Modern Development Deep Dive

*Intermediate*

**JASON BOCK, ALLEN CONWAY,  
BRENT EDWARDS, KEVIN FORD**

The Modern Apps Live! conference content is primarily focused on the tradeoffs and choices involved in designing and building a modern app. This workshop dives deep into the technology behind those choices and the way they're used to implement the MyVote demo app used in the conference. This is a no-holds barred deep dive into the design and implementation of modern apps, from the app server to the mobile services to each client app technology. You'll learn about modern Web development using a JavaScript application and get a deeper look into their supporting client and server technologies including AngularJS, TypeScript, SignalR, Azure Web sites and Azure Mobile Services. You'll learn about Windows development and Xamarin.Forms for iOS and Android development. Through it all, you'll learn about user experience and how important design is to successful modern apps.

# SESSION DESCRIPTIONS **BY TRACK**

## ALM/DevOps

Shipping high quality software is a team sport. From process management to the mechanics of automation, you need to get your people, process, and tools working in harmony. It's not unlike herding cats. Good Application Lifecycle Management practices are challenging. Add to that the fact that business demands more from teams, more quickly. As an industry, we need to evolve. DevOps is the hot buzzword, but what does it mean and how do you bring it to your organization?

In this track, we've got a range of sessions to help you build higher quality software you can deliver continuously if needed. This track covers:

- Enterprise Scrum
- Git
- Agile best practices
- Team Foundation Server
- PowerShell for Developers
- Managing your databases' lifecycle in the face of continuous delivery
- Automated UI Testing
- Visual Studio Online

### ■ TH04 Effective Agile Software Requirements

*Intermediate*

RICHARD HUNDHAUSEN

Thursday, March 10, 8:00 – 9:15am

The process wars are over. Agile won. So why do people still waste so much time and effort creating upfront requirements and documentation? Perhaps it reduces risk, leads to better design, produces higher quality software, or generates more accurate estimates? For certain complex projects, these might be true statements. For software development, though, these are all myths. For most software development efforts, upfront requirements and documentation are waste. In this session, you will learn why this is true. You will be introduced to techniques you

can use to break down the wall between the "requirements givers" and the "requirements developers" and replace it with a conversation instead. You'll use Visual Studio Online to create agile requirements in the form of user stories, assign business value, estimate their effort, refine and order them. By the end of the session, you will be able to identify waste and see new value in a more lean approach—all tactics you can use on your current or next project.

You will learn:

- How to write, cultivate, and manage effective Agile software requirements using Visual Studio
- How to reduce waste by separating the "what" from the "how"
- When to stop analyzing and specifying a new requirement

### ■ TH09 Lessons Learned: Being Agile in a Waterfall World

*Intermediate*

PHILIP JAPIKSE

Thursday, March 10, 9:30 – 10:45am

Scrum and XP have found a strong following in the development community. But most non-development groups (such as Web Administrators, Production Support, Security, Testing, and Users/Stake Holders) inside the enterprise are not only far from agile, that are not trying to move to be more agile. This session starts with a refresher on Scrum, then uses real experiences from large enterprise development projects to teach you how to effectively work with non-agile teams. Instead of trying to "convert" them, you'll learn strategies to adapt to their needs while remaining agile in the development realm.

You will learn:

- How to work with Traditional PMO
- How to work with DevOps and infrastructure teams
- About moving QA, Designers, and so on to agile

### ■ TH14 Real World Scrum with Team Foundation Server 2015 & Visual Studio Online

*Intermediate / Advanced*

BENJAMIN DAY

Thursday, March 10, 11:00am – 12:15pm

You've got Team Foundation Server 2015 and you're looking to do Scrum. Ok, that's great. Now what does that mean? What does TFS2015 actually do to help your Scrum team(s) run more efficiently? If you're the Scrum Master, how should you be coaching your team? What can you do to help get to high-quality, "done", working software faster? How does TFS make anything in Scrum easier?

In this session, you'll learn to address these from the perspective of a technically-minded Scrum Master. You'll learn how to address four of the main pieces of running a Scrum project using TFS2015: Stakeholder Interaction, Planning & Execution, Testing, and streamlining the Definition of Done (DoD). Along the way there will be plenty of talk about work item management, QA testing, feedback management, and automated builds.

You will learn:

- How to streamline your scrum process using TFS2015 & Visual Studio Online
- How to use TFS for manage stakeholder interaction using the Feedback Manager
- Methods for planning and executing your sprints
- How to use TFS's Test Hub to track and manage the QA testing effort
- To automate release and testing using automated build
- To improving your skills as a Scrum Master

## SESSION DESCRIPTIONS BY TRACK (continued)

### ■ TH19 DevOps vs. ALM—Different Measures of Success

*Introductory / Intermediate*

MIKE DOUGLAS

Thursday, March 10, 1:45 – 3:00pm

For years organizations having been measuring the success of Agile teams using ALM Practices. DevOps has evolved into how Agile teams now measure success. Which approach is correct? Is it mutually exclusive or do both still matter? In this session, you'll learn how DevOps and ALM each measure success and how both provide invaluable insights into the success of the team and product. You'll also learn how to identify the measures of success for their products and how to use Application Insights to provide critical feedback to the team and influence the future of the product. Finally, You'll see how Visual Studio Online and Power BI can surface key ALM metrics to create actionable insights for the team.

You will learn:

- How DevOps measures success and how your teams can identify measures in your own projects for success
- How ALM measures success and how you can surface key ALM metrics with Visual Studio Online and Power BI
- How you can use Application Insights to capture DevOps metrics to use as feedback for the team and future enhancements

### ■ TH24 Use Visual Studio to Scale Agile in Your Enterprise

*Intermediate*

RICHARD HUNDHAUSEN

Thursday, March 10, 3:15 – 4:30pm

Scaled Agile Framework (SAFe)? Large-Scale Scrum (LeSS)? Disciplined Agile Delivery (DAD)? Scaled Professional Scrum (SPS)? Whatever framework or guidance you are using, Team Foundation Server can implement it. Microsoft knows a thing or two about using ALM tools and Agile practices and, as a result, TFS has been designed to support some of the largest teams in the world. These are the kind of software organizations that want to manage goals and requirements that span multiple teams and sprints. In this session you will see how to create and manage a portfolio of projects, teams, and backlogs and how to plan and track work across them.

You will learn:

- How to use Team Foundation Server to plan and track an enterprise-scale agile software development effort
- How to customize Team Foundation Server to fit your scaled Agile framework
- How to configure and manage multiple teams to work off of the same product backlog

## ASP.NET

ASP.NET has been Microsoft's core Web development platform since 2002. Starting with Web Forms at the very beginning then morphing into MVC and ASP.NET Web Pages, it's been quite a ride. And just when you thought you knew the ropes, along comes ASP.NET 5. This is a change comparable in magnitude to the move from classic Active Server Pages to ASP.NET in the first place.

Then there are the broader fundamentals, like security, search and responsive design. You'll need to know how to use ASP.NET with newer package management tools and JavaScript utilities. The Visual Studio Live! ASP.NET track covers all this more. Come take in the content, get current and stay that way, with coverage of the following:

- ASP.NET 5 and MVC 6
- CSS and SASS for Developers
- Lucene.NET
- Using NPM, Bower, Gulp and Yeoman with ASP.NET

### ■ T06 How to Scale Entity Framework Apps with Distributed Caching

*Intermediate to Advanced*

IQBAL KHAN

Tuesday, March 8, 10:45am - 12:00pm

Entity Framework is a popular .NET object-relational mapper from Microsoft that eliminates the need for most of the data-access code that developers usually need to write. Entity Framework is increasingly being used in high transaction server applications (ASP.NET, WCF, and other .NET server apps) where scalability becomes a major issue. This talk will focus on teaching you how to use distributed caching in your Entity Framework applications for removing scalability bottlenecks.

## SESSION DESCRIPTIONS BY TRACK (continued)

You will learn:

- Scalability bottlenecks and how distributed caching resolves them
- Where in EF applications to use distributed caching
- How to handle EF Entity Collections and Relationships in distributed caching
- Important features in a distributed cache

### ■ T12 ASP.NET 5 in All its Glory

*Introductory / Intermediate*

ADAM TULIPER

Tuesday, March 8, 1:30 – 2:45pm

Hear from Microsoft what ASP.NET 5 brings to the table with the exciting changes going on in ASP.NET. There have been incredible performance enhancements and multi-platform support. Package management has completely been overhauled. MVC, Web API, and Web Pages have all been merged into one enhanced framework. Project files have been changed to a new format. Entity Framework 7 has been significantly overhauled which affects how it applies to ASP.NET. There are many other exciting changes as well. This session will help you understand these new features and how your apps can take advantage of the new amazing aspects of ASP.NET.

You will learn:

- The changes to ASP.NET 5 in Visual Studio 2015
- How this affects current applications
- How to utilize the new changes and use cases for them

### ■ T17 MVC 6—The New Unified Web Programming Model

*Introductory / Intermediate*

MARCEL DE VRIES

Tuesday, March 8, 3:00 – 4:15pm

With ASP.NET 5 comes MVC 6 with a programming model that unifies Web Pages, MVC and Web API. Each of these has been rebuilt to reflect Microsoft's vision of lean and composable Web applications. In this session, you'll see

the changes that have been made to the programming model. You'll learn about the new POCO controllers, View Components, dependency injection and much more. Plus, you'll see the significant changes to the ASP.NET runtime on which MVC 6 is built.

You will learn:

- About the changes in the ASP.NET programming model
- The DNX, DNU and the cross platform runtime
- About running ASP.NET on Linux and MAC

### ■ TH02 Responsive Web Design with ASP.NET 5

*Intermediate*

ROBERT BOEDIGHEIMER

Thursday, March 10, 8:00 – 9:15am

ASP.NET 5 is a new open-source and cross-platform framework for building modern Web applications using .NET. Learn how to create a responsive Web site that works great on a variety of devices using this new framework, Bootstrap and Visual Studio 2015.

You will learn:

- How to create web sites using Bootstrap to support responsive web designs for multiple devices
- How to take advantage of new ASP.NET 5 features
- About enhancements from the latest version of Visual Studio

### ■ TH07 Tools for Modern Web Development

*Intermediate*

BEN HOELTING

Thursday, March 10, 9:30 – 10:45am

The next version of ASP.NET embraces open source tools and technologies. This isn't a bad thing. Opening ASP.NET will only make it stronger by enabling the ability to

use best practices for modern web development. Learning these best practices and the tools and technologies to implement them will make you a more productive developer. NPM, Bower, Gulp and Yeoman are only some of the things you need to master. These technologies will soon replace some of the things you've bandaged into ASP.NET over the years. This session will dive into these and other modern Web development tools for your tool belt.

You will learn:

- Why ASP.NET is beginning to embrace open source
- About Bower, Gulp and Yeoman
- Best practices associated with these tools
- To understand any breaking changes that might affect upgrading to this version

### ■ TH12 SASS and CSS for Developers

*Intermediate*

ROBERT BOEDIGHEIMER

Thursday, March 10, 11:00am – 12:15pm

Web developers use CSS everyday, but few understand how it works. Learn how to leverage CSS to separate your content and presentation. Review the basics of selectors, inheritance, and common techniques for providing for a flexible layout. Discover recent CSS 3 improvements, which browsers support them, and how to handle those that don't. See how to maximize performance when using CSS via proper use of HTTP compression, minification, bundling, and expirations. Lastly, examine how SASS can simplify CSS and provide many of its missing features like variables and mixins.

You will learn:

- The basics of CSS for Web page styling
- How SASS provides major features that are missing in CSS
- How to process SASS to CSS

## SESSION DESCRIPTIONS BY TRACK (continued)

### ■ TH17 Hack Proofing Your Web Applications

Introductory / Intermediate

ADAM TULIPER

Thursday, March 10, 1:45 – 3:00pm

Your Web applications quite possibly have security vulnerabilities. Did you know cross-site scripting doesn't require JavaScript? Did you know jQuery scenarios can facilitate cross-site scripting attacks? Come learn about the major OWASP Top 10 attacks like SQL Injection, XSS, Session Hijacking, CSRF, parameter tampering, and how frameworks like jQuery, AngularJS, ASP.NET do not automatically protect you and that you—the developer—must be armed with techniques to protect your applications.

You will learn:

- Why most existing applications can be hacked in some way
- Details of common hack attacks in Web Applications (JavaScript, ASP.NET, and html attacks)
- Techniques for protecting web applications against hack attacks



### ■ TH22 Increase Website Performance and Search with Lucene.Net Indexing

Introductory / Intermediate

BEN HOELTING

Thursday, March 10, 3:15 – 4:30pm

Lucene.NET is a file based indexing engine written in C#. What does that mean to you? It means you can dramatically reduce round trips from your front end Web server to your backend services or database. So what does that mean? It means you'll have a really fast Web site. Lucene can be configured to crawl your data and index it all locally on your servers. It can then be quickly searched using Linq to return data to your application. This session will introduce you to Lucene and show you how to implement it in your applications.

You will learn:

- What is Lucene and why you should use it
- The basics on how to install, configure, and query Lucene
- Some advanced features of Lucene

## Cloud Computing

A growing number of IT practitioners believe the future of application development is service-based and in the cloud. Cloud computing offers flexibility, scalability and a less expensive way to host many applications. Even if you aren't ready for Microsoft Azure yet, you owe it to yourself to become familiar with cloud computing and the services approach to development. This track includes coverage of the following:

- Microsoft Azure Web sites
- Docker on Microsoft Azure
- Hybrid clouds
- Real-world examples and best practices
- PowerShell automation

### ■ T03 Introduction to Next Generation of Azure Compute – Service Fabric and Containers

Introductory / Intermediate

VISHWAS LELE

Tuesday, March 8, 9:15 – 10:30am

This session will cover programming models available in Service Fabric to build highly available, low latency micro-services that can be deployed on Microsoft Azure or Windows Server.

You'll learn about what many consider to be the most important recent announcement from the Azure Team – Azure Service Fabric and support for containers. This session will cover programming models available in Service Fabric to build highly available, low latency micro-services that can be deployed on Microsoft Azure or Windows Server. You'll also explore the container model, why it transforms the development process and how to create, use and manage them and integrate with Docker technologies.

## SESSION DESCRIPTIONS BY TRACK (continued)

You will learn:

- Programming models available in Service Fabric to build highly available, low latency micro-services
- To write micro services using the Service Fabric programming model
- The benefit of container model

### ■ T08 Docker and Azure

*Intermediate*

STEVE LASKER

**Tuesday, March 8, 10:45am – 12:00pm**

Docker has become one of the hottest topics for developer teams targeting either on-premises or in the cloud. In this session, You'll hear an overview of Container Technologies, why .NET developers should care about Docker, how you can prepare your apps, and how to architect your apps to work with Containers. You'll be introduced to additional topics like Docker Compose and Docker Swarm work and show how to build, test, diagnose, and deploy .NET apps to both Linux and Windows Server containers.

### ■ T18 Building "Full Stack" Applications with Azure App Service

*Intermediate*

VISHWAS LELE

**Tuesday, March 8, 3:00 – 4:15pm**

As a developer, we are increasingly being asked to build "full stack" applications – modern scalable web applications, cross platform mobile applications, integrate with on-premises, all at a global scale. Azure App Service is designed to help with this. In this session we will look at different constituent parts of this service.

You will learn:

- Web Apps—Building scalable web applications
- Mobile Apps—Building cross platform mobile backends
- Logic Apps—Automate business processes across SaaS and on-premises

- API Apps—Build and consume Cloud APIs within any app

### ■ W03 Exploring Microservices in a Microsoft Landscape

*Introductory / Intermediate*

MARCEL DE VRIES

**Wednesday, March 9, 8:00 – 9:15am**

During this session, you'll have a look at how to realize a Microservices architecture (MSA) using the latest Microsoft technologies available. You'll discuss some fundamental theories behind MSA and show you how this can be realized with Microsoft technologies such as Azure Service Fabric. This session is a real must-see for any developer that wants to stay ahead of the curve in modern architectures.

You will learn:

- What micro services are
- What Azure Service fabric has to offer
- Programming models you can use for Service fabric

### ■ W08 Breaking Down Walls with Modern Identity

*Intermediate*

ERIC D. BOYD

**Wednesday, March 9, 9:30 - 10:45am**

Are you confused and bogged down by all the identity standards and terminology like OAuth, OpenID, SAML, Federation and claims-based security?

Open web standards for authentication, authorization and delegation are very important in our connected, integrated and mobile world. There are demands from both corporate and consumer technology initiatives for single sign-on, integration with external partners, multi-tenancy, identity across application tiers, and authentication with multiple identity providers.

In this session, you will learn what the standards and terminology means, the standards and protocols to use in various scenarios, how to get started with IdentityServer, Azure Active Directory, and how to integrate modern identity standards into your applications, desktop, web, APIs and mobile.

You will learn:

- Overview of modern identity standards and terminology
- When these standards apply to various scenarios
- How to get integrate modern identity into your applications

### ■ W13 Real-world Azure DevOps

*Intermediate*

BRIAN RANDELL

**Wednesday, March 9, 1:30 – 2:45pm**

With Microsoft Azure, it's all about doing more with less. Truly modern applications are built on modern platforms where you have hyper-scale at the ready to build the next big thing. But how do you do it? In this talk, Brian will show you how you can automate your way to success and create a flowing DevOps practice in your organization when you combine best practices learned in production with the latest tools and technologies from Microsoft. Brian will show you how you can take a commit to production with testing and validation in an automated release pipeline and have the analytics you need to manage your system. All of this based on a real Azure solution that's been in production for more than two years.

You will learn:

- How Azure changes the game
- How to create an automated release pipeline
- How to bring DevOps to your organization with Microsoft Azure



## SESSION DESCRIPTIONS BY TRACK (continued)

### ■ W18 Lock the Doors, Secure the Valuables, and Set the Alarm

*Introductory/Intermediate*

ERIC D. BOYD

**Wednesday, March 9, 3:00 – 4:15pm**

Data center attacks and security breaches are hot, but common news today. When considering the cloud, security, privacy, and compliance are often top concerns. And rightfully so, you don't want to be the next big news story.

Join Azure MVP, Eric D. Boyd, and learn how to secure your Azure Data Center by reducing the exposure for attacks, locking down internal and external communications, protecting your data, and monitoring the activities within your Azure environment.

You will get a lap around a number of Azure capabilities including network security groups, Key Vault, VM disk encryption, SQL Database security, Azure Security Center, Next-Generation Firewalls, Web Application Firewalls, and more.

You will learn:

- How to secure the Azure environment, network, servers, services and even your applications
- How to encrypt and protect your data
- How to monitor and audit your Azure environment

### ■ W23 Managing Windows Azure with PowerShell

*Introductory / Intermediate*

MARK MICHAELIS

**Wednesday, March 9, 4:30 – 5:45pm**

Do you find yourself clicking back and forth around the Azure Web site trying to complete various activities—trying to remember on which page you do what (perhaps whether it is possible in the new portal or only in the old)? Do you find that using the browser and a mouse are great if you are only doing something once, however, as soon as you start to do the same thing multiple times, you lack the skills to automate it? Whether you are managing virtual machines, deploying Web sites and other cloud services, managing Azure Active Directory, or working with databases, this is the session for you. Learn how to use the PowerShell command line interface and scripting support to automate your Azure activity, streamlining through PowerShell automation everything from the most mundane to the most complex activities.

You will learn:

- How to setup the Azure PowerShell environment.
- Become familiar, by example, with some of the myriads of Cmdlets available.
- How to leverage PowerShell for automated deployment to Azure

## Database and Analytics

SQL Server 2014 is here and SQL Server 2016 is coming. If that weren't enough, Big Data and Machine Learning/Data Science are becoming more mainstream and relevant to developers. Visual Studio Live! helps you contend with these changes with coverage of:

- T-SQL
- Working with JSON data in SQL Server
- Hive, HDInsight and Power BI
- Spark and R for C# developers
- Database Lifecycle Management

### ■ T14 Exploring T-SQL Enhancements: Windowing and More

*Introductory / Intermediate*

LEONARD LOBEL

**Tuesday, March 8, 1:30 – 2:45pm**

This informative and demo-packed session will quickly get you up to speed on SQL Server's powerful windowing features. Learn how to leverage windowing with the OVER clause to calculate running and sliding aggregations, row lookups, and percentiles based on rank. We'll also explore other T-SQL enhancements, including new functions (all 22 of them!), improved error handling with THROW, server-side paging with OFFSET/FETCH NEXT, sequence generators, and metadata discovery techniques. If you want to learn about windowing and other T-SQL enhancements in SQL Server, you won't want to miss out on this session!

## SESSION DESCRIPTIONS BY TRACK (continued)

### ■ T19 Geospatial Data Types in SQL Server

*Introductory / Intermediate*

LEONARD LOBEL

**Tuesday, March 8, 3:00 – 4:15pm**

The geospatial capabilities in SQL Server are not only powerful, but easy and fun to use! And because they are implemented as CLR types, they can be used just the same in your .NET applications. In this session, you'll learn how to integrate location-awareness into your own database applications with the geometry and geography data types. You'll explore the planar and geodetic spatial models, spatial markup languages such as WKT and GML, and then put these concepts to use and build several spatial desktop and web applications. The demos in this session will show you how to integrate with Bing Maps, and how to use the geospatial methods to easily calculate area, length, and distance, and project new shapes based on intersection and overlap. You'll also cover the latest geospatial enhancements in SQL Server 2012. Attend this session and embrace spatial programming today.

You will learn:

- About the planar (flat earth) and geodetic (round earth) spatial models
- How to leverage the geometry and geography data types to manipulate spatial data
- How to integrate your own spatial data with Bing Maps

### ■ W04 Database Lifecycle Management and the SQL Server Database

*Intermediate*

BRIAN RANDELL

**Wednesday, March 9, 8:00 – 9:15am**

DevOps is hot, but all too often the database is the missing link. In this session, Brian will discuss where the database fits in, and how you can use tools to extend your infrastructure to make the database a first class citizen.

You'll see how to track changes, create update packages, and with complete automation, deploy to multiple environments like development, test, UAT, and production and basically bring things under control with Database Lifecycle Management.

### ■ W09 JSON and SQL Server, Finally Together

*Intermediate / Advanced*

STEVE HUGHES

**Wednesday, March 9, 9:30 – 10:45am**

While still in CTP, SQL Server 2016 is introducing support for JSON. It won't be implemented as a data type like XML, however, many new functions are being introduced. These functions support selecting data into a JSON object using a PATH statement similar to the XML functionality. This session will walk through demos of the most up-to-date JSON functionality in SQL Server 2016 including creating JSON objects, querying data from JSON objects and saving JSON in SQL Server.

You will learn:

- How JSON is handled in SQL Server
- How to create JSON objects using SQL Server
- How to query JSON objects using SQL Server

### ■ W14 Using Hive and Hive ODBC with HDInsight and Power BI

*Introductory / Intermediate*

STEVE HUGHES

**Wednesday, March 9, 1:30 – 2:45pm**

Has your company started working with or proposed working with Hadoop? How can you as a developer work with Hadoop data in a simple fashion? In this session, you'll learn how to use Hive to interact with data stored in an HDInsight cluster. You'll examine the details of applying schemas using DDL and executing queries with HiveQL to retrieve data from the Hadoop structure. You'll also look

at how Power BI can use this to display data in compelling fashion using the ODBC driver from Microsoft.

You will learn:

- How to use Hive to apply schemas to data in Hadoop
- How to use Hive to query data from Hadoop
- How to use Microsoft's ODBC Hive driver to use Hive in other applications

### ■ W19 Introduction to Spark for C# Developers

*Introductory / Intermediate*

DR. JAMES MCCAFFREY

**Wednesday, March 9, 3:00 – 4:15pm**

Spark is an open source Big Data computing framework. The use of Spark is growing rapidly and Spark is replacing Hadoop in many IT environments. In this informal but in-depth presentation, Dr. James McCaffrey from Microsoft Research will explain the exact nature of Spark, describe how to install Spark in a Windows environment, and demonstrate the Hello World example of Spark. You'll leave this presentation with a solid grasp of what Spark can (and cannot) do, and have a complete understanding of how to get started with Spark.

### ■ W24 Introduction to R for C# Programmers

*Introductory / Intermediate*

DR. JAMES MCCAFFREY

**Wednesday, March 9, 4:30 – 5:45pm**

The R programming language is often used by software developers and data scientists to perform mathematical and statistical work. R is an open source project and an unofficial part of the Microsoft technology stack. The use of R has increased significantly over the past few years, and with coming support for R in Visual Studio, it's expected to grow even more quickly. In this lively and informative session by Dr. James McCaffrey from Microsoft Research in Redmond, you'll learn exactly what the R language is

## SESSION DESCRIPTIONS BY TRACK (continued)

by seeing example problems solved using both C# and R. You'll leave this session with a solid understanding of what R can do and why many experts recommend adding R to your personal skill set, how learning R can improve your career path, and you'll know how to go about learning R quickly and efficiently.

You will learn:

- Know exactly what the R language is and when to use it
- The ways in which R is different from C#
- How to create non-trivial R scripts



### JavaScript / HTML5 Client

The browser and JavaScript provide perhaps the highest level and best abstraction over every operating system. Developers can build smart client apps that run across browsers, platforms and operating systems. This is possible in large part through the use of various JavaScript frameworks such as Angular, Aurelia, and many others. This track will arm you with the knowledge to be part of this next-generation smart client development wave based on JavaScript and HTML 5:

- Angular—the most commonly used UX framework
- Aurelia—up and coming new UX framework
- JavaScript from the perspective of a C# developer
- TypeScript—use next-gen JavaScript features today

#### ■ T02 Angular 101

*Introductory*

DEBORAH KURATA

Tuesday, March 8, 9:15 – 10:30am

This beginner-level session introduces the .NET developer to Angular, the popular JavaScript framework for building client-side Web applications. The session begins with an acronym-free description of the concepts and terms required to successfully build a Web application with Angular. Topics covered include data binding, routing, modules, and data access using an HTTP service.

#### ■ T07 Angular 2.0: A Comparison

*Introductory / Intermediate*

DEBORAH KURATA

Tuesday, March 8, 10:45am – 12:00pm

Angular 2.0 is on the horizon. You may be wondering, "How do the many new features in Angular 2.0 compare to existing Angular 1.x syntax"? In this session, you'll see an app written in both Angular 1.x and in Angular 2.0. We'll

look at the similarities and differences to help you make the transition to the new concepts and syntax.

#### ■ T13 Knockout In 75 Minutes (Or Less...)

CHRISTOPHER HARRISON

Tuesday, March 7 1:30pm - 2:45pm

Details will be announced soon.

#### ■ W02 Getting Started with Aurelia

*Introductory / Intermediate*

BRIAN NOYES

Wednesday, March 9, 8:00 – 9:15am

Aurelia is a full-featured client JavaScript framework for building Single Page Apps (SPAs). In this session, you will learn how to get started building applications with it. You'll see how to get your app configured and bootstrapped, how to implement the MVVM pattern with it, how to do data binding, how to leverage routing and navigation, call services and more.

You will learn:

- The fundamentals of Aurelia
- How to apply the MVVM pattern to client JavaScript applications with Aurelia
- How to navigate from view to view and data bind to your ViewModels

#### ■ W07 Securing Single Page Applications

BRIAN NOYES

Wednesday, March 9, 9:30 – 10:45am

One topic often pushed to the side when talking about SPAs is security. Whether you are talking Angular, Aurelia, or some other framework, the short answer is "you can't secure the client side". However, the reality is you still need to secure your application as a whole.

## SESSION DESCRIPTIONS BY TRACK (continued)

In this session you will learn about what you can and can't do with security in Angular and Aurelia, and how you can protect the application as a whole with a combination of securing the files that compose your application, providing a good user experience for login and authorization in your client side app, and securing the Web API calls that your Angular app depends on to access the sensitive parts of your application—the data. You'll also learn about other aspects of security that the client side has to participate in, including CSRF/XSRF protection and CORS support. You'll learn all this primarily in the context of using ASP.NET for your hosting environment of your Angular or Aurelia app, but the session will also touch on what the corresponding options are and what support is needed for other back end host such as NodeJS.

You will learn:

- What parts of your SPA you can secure and how
- How to work with secured Web APIs in your SPA
- How to manage CSRF and CORS

### ■ W12 An Introduction to TypeScript

*Introductory / Intermediate*

JASON BOCK

Wednesday, March 9, 1:30 – 2:45pm

JavaScript is the language for Web development, but it's not the only way to write code in Web applications. TypeScript is a language that emits JavaScript, but provides constructs and features currently missing in JavaScript. In this session, you'll see what TypeScript is, how it works, and why you should consider using it on future Web projects.

You will learn:

- Why TypeScript is relevant for Web developers
- Get a tour of the TypeScript language
- How TypeScript integrates with web applications in Visual Studio

### ■ W17 Take a Gulp, Make a Grunt, and Call me Bower

*Introductory*

ADAM TULIPER

Wednesday, March 9, 3:00 – 4:15pm

There are client side package managers and build systems aplenty nowadays. We have grunt, bower, gulp, nuget, msbuild, npm, and many others. Visual Studio now has built in support for Grunt, Bower, and Gulp. Why so many systems? Isn't Visual Studio just fine with the tools that we currently use?

ASP.NET has typically done things its own way for many years, which has pros and cons. Now that there is a vast ecosystem of other technologies, many that now integrate and run just fine on Windows, it makes sense to bring in some of the other tools developers use with much success in other ecosystems. Grunt/gulp lets you run client side Javascript tasks, like minifying a code file, or prepping your code like jQuery uses Grunt for. Bower is a package manager typically used for Javascript libraries that allows you to define, version, and retrieve your client side dependencies. These tools fill the gap in the development pipeline. Once you see their power, you will understand their well deserved place in the ecosystem. Come find out how to utilize these great tools in your Web development workflow.

You will learn:

- About how NuGet, Grunt, Bower, and Gulp fit into the development ecosystem, where they may overlap, and how they differ
- What Bower is and how to utilize it
- What Grunt/Gulp are and how to implement them into your workflow

### ■ W22 JavaScript for the C# (and Java) Developer

*Intermediate*

PHILIP JAPIKSE

Wednesday, March 9, 4:30 – 5:45pm

Yes, it has curly braces. Yes, it has semi colons. And you can write C# like code in JavaScript. But should you? JavaScript programming has many paradigms that make it very different than writing typical managed code. In this session, you—the C# programmer—will learn what you need to know to take your JavaScript to the next level.

**“WE CONTINUE TO RETURN TO VISUAL STUDIO LIVE! BECAUSE WE’VE LEARNED AND IMPROVED SO MUCH, FROM CODE QUALITY TO THE WAY WE HIRE, TO UNIT TESTING AND ALM—WE GOT IT ALL HERE!”**

— Randy Keyers, Driesesen HRM

## SESSION DESCRIPTIONS BY TRACK (continued)

### Mobile Client

Mobile clients are becoming a common vehicle to let users interact with each other, their organizations, and their business applications. Mobile apps might be native client apps or mobile Web sites, and they often make use of cloud-based data and services. This track includes:

- Using Xamarin tools to leverage your C# code on iOS and Android
- Azure Mobile Services
- Building Cross-Platform Games with MonoGame
- Swift for .NET Developers

#### ■ T11 Native Mobile App Development for iOS, Android and Windows Using C#

*Intermediate*

MARCEL DE VRIES

**Tuesday, March 8, 1:30 – 2:45pm**

Walk through the process of building one app for multiple platforms.

So you need to build a mobile app, but you've been a C# developer for a long time. What are your options? Should you build a mobile app using the Web approach with HTML and Java Script? Do you need to learn objective C or swift for iOS, or perhaps Java to build an Android app? Fortunately, there are other options. In this session we will have a look at how we can build Native apps using C# and Xamarin. The Xamarin toolset enables us to build native apps from your Visual Studio IDE, by providing a language projection of the native platform libraries (Android or iOS) to C# and an implementation of the .NET framework that runs on that device. Xamarin also provides a library called "Xamarin Forms" that enables us to build a shared UI definition (in XAML) that translates to the native controls on each device. This enables us to share even more code, while keeping the uniqueness of each platform to appeal to the native users. Want to know how to build native apps in your favorite language in a productive way? This session is for you!

#### ■ T16 Getting Started with Hybrid Mobile Apps with Visual Studio Tools for Cordova

*Introductory / Intermediate*

BRIAN NOYES

**Tuesday, March 8, 3:00 – 4:15pm**

Hybrid mobile apps are a great way to build a multi-platform mobile app if you already have Web development experience and it makes sense for your app requirements. In this session, you will learn the basics of creating a mobile app with Cordova and leveraging the new tooling in Visual Studio for building and testing these kinds of apps. You'll learn some of the fundamentals of using Cordova to build apps as well as how to build, deploy, and debug them using Visual Studio.

You will learn:

- The fundamentals of Cordova for building mobile apps
- How to use Visual Studio for writing, building, and debugging Cordova apps
- About the simulators Visual Studio can work with

#### ■ W01 Busy .NET Developer's Guide to Native iOS

*Introductory / Intermediate*

TED NEWARD

**Wednesday, March 9, 8:00 – 9:15am**

While much of the focus in the Microsoft world has been on how to leverage familiar tools and assets to program for the wildly popular iOS platform, sometimes you just have to "go native" to exploit the full power and potential of the platform. In this session, using Swift as the language, you'll go from zero to working iOS app using nothing more than the tools that Apple gave us: XCode, Swift, and a working iPhone.

#### ■ W06 Busy Developer's Guide to Mobile HTML/JS Apps

*Introductory / Intermediate*

TED NEWARD

**Wednesday, March 9, 9:30 – 10:45am**

HTML and JavaScript are well-known for building Web applications. Within the last few years, though, more toolkits for building "native" mobile applications using those same tools have emerged. It can sometimes be tricky to figure out when which approach to building a mobile application is more appropriate. In this session, you'll examine some of the more popular HTML/JS mobile app development toolkits, and how to build one using the granddaddy of the genre, Apache Cordova, a.k.a. PhoneGap.

You will learn:

- An overview of several of the HTML/JS-based mobile toolkits
- How to experiment with Apache Cordova
- When to (and when not to) use them

#### ■ W11 Optimizing Applications for Performance Using the Xamarin Platform

*Intermediate*

KEVIN FORD

**Wednesday, March 9, 1:30 – 2:45pm**

User experience is extremely important for mobile applications. One of the best ways to ruin an otherwise great user experience is to write an inefficient application that is slow, uses a lot of memory or shows the user performance issues. This session will examine the Xamarin garbage collector on iOS and Android and how that interacts with the system's underlying memory management systems. You'll learn how to deal with large image assets, particularly on the Android platform. Many

## SESSION DESCRIPTIONS BY TRACK (continued)

more topics will be covered to help you understand how to write efficient applications on the Xamarin platform.

You will learn:

- How a poor performing app can damage the user experience
- About some of the more common performance pitfalls and how to avoid them
- About how the system's underlying memory management interacts with the Xamarin Platform

### ■ W16 Leverage Azure App Services Mobile Apps to Accelerate Your Mobile App Development

Introductory / Intermediate

BRIAN NOYES

Wednesday, March 9, 3:00 – 4:15pm

Most mobile apps have a common set of requirements. You need to work with data on the back end, you need to authenticate your users and make authorization decisions about what they can do in the app and on the back end, you need to send notifications to your users, and you may need to work with some data offline. However, the plethora of ways you can address those requirements and the infrastructure you have to set up and integrate with can be daunting. Azure Mobile App Services gives you a straightforward, integrated approach that lets you pick the building blocks you need and compose them with a single back end entry point in Azure. Azure Mobile App Services is a replacement for Azure Mobile Services, but if you learned how to use those before, you have very little to learn to use the new App Services. And some of what you can build can also be shared building blocks with other kinds of apps such as Web Apps and Logic Apps. This session will give you a good understanding of what Azure Mobile App Services are all about, how they relate to what came before, what the capabilities are and how to get started leveraging them.

You will learn:

- How to work with Mobile App Data on Azure
- How to secure your mobile app with Azure App Services
- How to send notifications to users through Azure App Services

### ■ W21 Building Cross-Platform Apps Using CSLA.NET

Intermediate

ROCKFORD LHOTKA

Wednesday, March 9, 4:30 – 5:45pm

CSLA .NET is one of the most mature and widely used open source frameworks for Microsoft .NET. It helps you build a business layer for your application that is independent of any specific user interface technology.

Thanks to Xamarin enabling the use of .NET and C# on iOS and Android you can now use Visual Studio and .NET to build cross-platform apps. With CSLA .NET supporting Xamarin, it is possible to reuse nearly 100% of your business layer code across Windows Forms, WPF, WinRT, iOS, Android, and ASP.NET server code.

In this session you'll see how to use Visual Studio to build apps that share all business layer code, and support WinRT, iOS, and Android interfaces.

### ■ TH01 Building for the Internet of Things: Hardware, Sensors & the Cloud

Introductory / Intermediate

NICK LANDRY

Thursday, March 10, 8:00 – 9:15am

Connected, smart devices have become pervasive. These "things" already outnumber more traditional computing devices and are set to surpass the 100 billion devices mark within a few short years. The Internet of Things (IoT)

extends your reach as a software developer into the world of diverse hardware devices controlled by your code and powered by the cloud. In this session you'll explore the "Maker" or "Things" side of IoT with hardware boards like Arduino, Raspberry Pi, Netduino, Intel Edison and others, and the various sensors and shields you can use to measure temperatures, capture user input via buttons, display data on micro displays and more fun electronic stuff. You'll build your first simple electronic circuits using LEDs and push buttons, and then write embedded code to augment that circuit by deploying and running it on various microcontroller boards.

This session will also extend the reach of your hardware projects by connecting your "things" to the cloud, thus fulfilling the promise of the "Internet of Things". You'll learn about many of the options available to plug devices into connected intelligent systems, including Ethernet, Wi-Fi, Bluetooth and other custom wireless options. You'll explore how sensor data from hardware devices from the field can be collected and routed through gateways using Machine-to-Machine (M2M) messaging, and stored in the cloud, where it can be consumed in real-time data visualization dashboards.

The Internet of Things is full of opportunities for developers and this session is your best starting point to understand the big picture, and the possibilities. Don't fret if you've never done anything with hardware or electronics, this session will give you the guidance you need to get started.

You will learn:

- Understand the world of connected devices in the "Internet of Things" (IoT), the various components such as smart devices, custom boards (Arduino, Netduino, Raspberry Pi, etc.), protocols and sensors
- How to build a simple electronic project with LEDs and user input, write simple code projects or sketches and deploy them to hardware boards
- How to use Microsoft Azure services for Machine-to-Machine (M2M) messaging scenarios

## SESSION DESCRIPTIONS BY TRACK (continued)

### UX / Design

Users expect high quality usability and UX in their applications more than they ever have. Learn from top experts about how to approach application design and development to enable amazing user experiences in your applications. This track includes:

- User Experience Case Studios: Good and Bad
- Data visualization
- Modern application design principles

#### ■ TH06 User Experience Case Studies—Good and Bad

*Introductory*

**BILLY HOLLIS**

**Thursday, March 10, 9:30 – 10:45am**

In the modern apps era, users expect more intuitive and productive user experiences. To give them better UX, it helps to see both good and bad examples of user experience. In this session, you'll look at a range of applications and real-world products that exemplify good and bad design. For each, you'll look at the underlying design principles that help us understand why it works or doesn't.

You will learn:

- Good examples of compelling UX, to help build a pool of good designs
- Examine bad designs to learn what to avoid
- Gain an introduction to basic design principles that help you evaluate user experience designs

#### ■ TH11 Pretty, Yet Powerful. How Data Visualization Transforms The Way We Comprehend Information

*Introductory / Intermediate*

**WALT RITSCHER**

**Thursday, March 10, 11:00am – 12:15pm**

Our applications and devices are gathering and storing data at unprecedented levels. Once the information is in our data centers we need tools to help us understand the hidden knowledge contained in that stockpile. We've got business intelligence tools that can help but at some point in the data analytics cycle you need to show results to the stakeholder. That's when choosing the correct visual representation of the data becomes vital. Do it wrong and the data is merely wrapped in pretty graphics; do it right and the user perceives their information in clear and meaningful patterns.

There has been an explosion of research on ways to present data in graphical form in the last decade. This is often called Data Visualization or Information Graphics and it is becoming a must have skill for UI developers. This session explores the overall visual concepts that make data easier to grasp. Do you know the best way to show data to your users, so that the information is clear and understandable? Come to this session to learn how to make your data shine.

You will learn:

- Concepts of clean modern information design
- The power and pitfalls of the human visual system
- The differences between data visualization, information graphics and motion graphics
- Why time based animation is a powerful data enhancer

### Visual Studio / .NET Framework

Microsoft continues to deliver updates at a rapid pace. In 2014 and 2015, Microsoft released quarterly updates to Visual Studio and Team Foundation Server (TFS) on-premises and the Visual Studio Online (VSO) service saw updates about every three weeks. In August of 2015, Microsoft released Visual Studio 2015. The 2015 release is an exciting update with new editions with tons of new features, not to mention Microsoft's exciting venture into more open source and cross-platform development.

Topics in this track include:

- Sessions focused on Visual Studio 2013 and 2015, .NET 4.5 and C# 6.0
- Asynchronous programming
- Unit Testing
- Dependency Injection
- Modeling an extensibility API for your apps

#### ■ T01 Developer Productivity in Visual Studio 2015

*Intermediate*

**ROBERT GREEN**

**Tuesday, March 8, 9:15 – 10:30am**

Over the past several years, Microsoft has been hard at work re-implementing the full language stacks for Visual Basic and C#. The goal was an improved stack with a cleaner architecture would help the Managed Languages team work faster, empower others to build "code smart" tools and applications, and create a richer and smarter IDE experience in Visual Studio. In this session, you'll review Visual Studio 2015 delivers a variety of improvements, including new language features, smarter and better IDE experiences, improved debugging, code-aware "diagnostic analyzers" and more.

## SESSION DESCRIPTIONS BY TRACK (continued)

You will learn:

- What the new features in Visual Studio 2015 offer to increase your developer productivity
- How to take advantage of Visual Studio 2015 to cut down on your development time
- How Visual Studio 2015 helps you write better applications

### ■ T04 Technical Debt—Fight It with Science and Rigor

*Intermediate*

BRIAN RANDELL

Tuesday, March 8, 9:15 – 10:30am

In this session, Brian will cover what technical debt is and what issues it causes for your teams and organization. He'll then cover how you can identify and quantify it using metrics and analytics. He'll look at ways that you can apply rigor and develop a plan to address your existing debt. He'll show you with tooling how to analyze and adjust your development processes to repay the debt. Finally, he'll provide guidance on how you can reduce the amount of debt your team takes on during development.

### ■ TH03 Unit Testing & Test-Driven Development (TDD) for Mere Mortals

*Introductory / Intermediate*

BENJAMIN DAY

Thursday, March 10, 8:00 – 9:15am

Unit Testing and Test-Driven Development (TDD) arguably mean the same thing. They both describe a way of developing software so you always know whether or not it's working. You write little chunks of code (unit tests) to verify the objects and methods in your application's code. It helps you ensure you have PROOF that your code works. It also makes your code easier to maintain and easier to refactor. Plus, while it might not feel like it right away, writing using tests makes your development process go a lot faster.

In this session, you'll learn about unit testing & TDD, why you should care, and how to do it with C# and ASP.NET MVC. Along the way, expect to hear about "designing for testability" and some really helpful testability design patterns like the Strategy, Repository, and Adapter patterns.

### ■ TH08 Unit Testing JavaScript

*Intermediate*

BEN DEWEY

Thursday, March 10, 9:30 – 10:45am

Web apps aren't just for getting and posting content from a client and a server anymore. With increased power of client machines and the creation of numerous frameworks and tools, JavaScript is becoming an increasingly important code asset within many applications. While this dynamic language is powerful, the absence of a compiler forces execution of every line of code to ensure it's functioning correctly. This presentation shows techniques for unit testing JavaScript, so you can leverage the richness of JavaScript in your application, while maintaining a high level of quality.

You will learn:

- Popular tools for unit testing your JavaScript
- Techniques for managing unit testing JavaScript in your application
- How to create testable JavaScript code

### ■ TH13 End-to-End Dependency Injection & Writing Testable Software

*Intermediate*

MIGUEL CASTRO

Thursday, March 10, 11:00am – 12:15pm

Dependency Injection is one of those terms that advanced programmers throw out with an expectation and assumption of full understanding on the part of the receiver. However, I constantly get asked by attendees, students, and clients to please recommend a good DI

product and show them how to use it; and when I proceed to start talking about the subject, it becomes immediately apparent that many don't even know what they're asking about. It's easy to get infatuated by a cool buzz phrase, especially when you hear so many others using it. But to truly understand something you need to start by understanding the problem spaces that it is trying to solve. It's important to learn the concepts behind DI so you can write software that can be properly tested. So let's bring you totally up to speed then.

In this session, I'll explain dependency injection from concept to implementation, and use raw code samples to show you how it works and what problems it solves. I'll demonstrate how writing abstracted code can help you test your applications much better, whether or not use a DI container. Then I'll get into what a DI container is and some of the characteristics and features it offers. I'll finish by showing you implementation examples in three different platforms.

You will learn:

- How to use DI for everything
- How to completely eliminate class instantiation
- Ensure across-the-board testability

### ■ TH16 Exposing an Extensibility API for your Applications

*Advanced*

MIGUEL CASTRO

Thursday, March 10, 1:45 – 3:00pm

Writing software that can be maintained is and always has been crucial. But so is writing software that can be enhanced and extended. It's become commonplace for many apps today to expose APIs so externally written apps can have access to their data or their services. Imagine how cool it would be to expose an API for changing or extending an application's functionality. This means the ability to use the architecture of an application in order to enhance that system. This is the power of the patterns and



## SESSION DESCRIPTIONS BY TRACK (continued)

techniques you'll learn in this session. They're useful and geeky so bring your propeller hat.

### ■ TH18 Async Patterns for .NET Development

Intermediate

BEN DEWEY

Thursday, March 10, 1:45 – 3:00pm

In this session, you'll dive deep into asynchronous development using .NET. The session will start with some basic async/await patterns and the pitfalls and considerations of using this technique and will follow up with advanced usages of Task and the TaskCompletion source to build your own custom combinators.

You will learn:

- How async and await work under the covers
- How to avoid the common pitfalls of async code
- How to create custom async and await scenarios from scratch

### ■ TH23 Improving Quality for Agile Projects Through Manual and Automated UI Testing—NO CODING REQUIRED!

Introductory

MIKE DOUGLAS

Thursday, March 10, 3:15 – 4:30pm

Every application needs testing, but are you testing consistently and thoroughly? Is your testing tightly integrated with the development process? Are you using automated regression tests to help ensure changes do not cause unintended issues?

- Many organizations face these common challenges:
- Applications in production have too many bugs
- There is no capability to effectively measure quality
- Teams run out of time or bandwidth to test thoroughly

- There is no strategy for improving quality and testing
- Automated tests are slow to run and are fragile, which makes them difficult to maintain

Attend this testing-focused session to better understand your testing maturity while learning how and why to continue advancing your testing processes. See how an agile test strategy takes desirements (user stories) and turns them into executable specifications (automated UI tests). All of this with no coding required.



**"WE SET ASIDE TIME FOR LEARNING AND RESEARCH BUT DON'T ALWAYS GET TO IT. VISUAL STUDIO LIVE! HELPS US DISTILL THAT DOWN AND GETS US EXPOSED—IT'S FABULOUS, THE EVENT'S BEEN GREAT."**

— Sherry Clifford, Katana Software

### Windows Client (Windows 10/ UWP, WPF)

There are more than a billion Windows PCs in the world and given the media attention on mobile development it can be easy to forget that Windows remains the dominant OS. This track is focused on building Windows apps using the re-energized WPF technology as well as the newer Windows 10 Universal Windows Platform (UWP) that allows your apps to run on Windows 10 PC, phone, IoT, and other devices and platforms. This track includes coverage of the following:

- Building UWP Line of Business Apps
- Getting to UWP from WPF and Silverlight

### ■ T09 Building Windows 10 Line of Business Applications

Intermediate

ROBERT GREEN

Tuesday, March 8, 10:45am – 12:00pm

New platforms mean new opportunities. Windows 10 provides new opportunities for a wide range of apps—everything from games to newsreaders to front-ends to CRM systems. It also provides new opportunities for developers of custom line of business apps. In this session, you'll explore how to build Windows 10 LOB apps. You'll learn how to work with existing data and services, how to build user interfaces that present data to users while still following the Microsoft design language principles, how to authenticate users, how to test apps and how to deploy LOB apps on Windows 10.

You will learn:

- Review strategies for building Windows 10 LOB apps
- How to work with data and build UIs that present that data
- How to test and deploy LOB apps on Windows 10

## SESSION DESCRIPTIONS BY TRACK (continued)



Modern Apps **LIVE!**  
MOBILE, CROSS-DEVICE & CLOUD DEVELOPMENT

Presented in Partnership with  
**Magenic**

### ■ TH21 UWP Development for WPF and Silverlight Veterans

*Introductory / Intermediate*

WALT RITSCHER

Thursday, March 10, 3:15 – 4:30pm

Microsoft continues to evolve their UI development tools. First there was WPF, the premier desktop UI development language. WPF introduced the XAML markup language to the world and over the last few years XAML was updated and used in the Silverlight and Windows Phone UI platforms. Now XAML is part of the Universal Windows Platform, where you can build a single app and with a few tweaks, have the app run across the broad spectrum of devices (phone, tablets, desktop, Xbox, embedded devices and more). It's natural, if you are veteran WPF/Silverlight/WinPhone developer, to expect that you can use your current skill set to build Universal Windows Apps. The good news is that you can do this. There's a lot that familiar, but UWP brings plenty of challenges too. For one, you need to learn how to make a responsive UI, which will adjust across screen sizes. Come to this session to learn how to build UWP apps and how to use familiar techniques like MVVM in the process.

You will learn:

- The UWP XAML
- Discover interesting features of UWP
- Find out more about responsive UI design for UWP

### Modern Apps Live!

Modern app development brings a new set of challenges to software developers, designers, managers, architects and team leaders. Many of these apps target multiple client platforms and technologies, including numerous mobile platforms. They rely on state-of-the-art, server-side platform capabilities. Users expect professional quality and performance in their business apps, and they expect them to be delivered on time. That means you need to apply application lifecycle processes and tools effectively, along with embedded developer and acceptance testing.

This single track conference consists of sessions that provide you with an end-to-end narrative covering all aspects of building modern apps using today's technologies. You'll learn how to manage a project lifecycle when that project includes Azure cloud services supporting clients running on iOS, Android, Windows 10 and HTML5/JavaScript.

### ■ T05 Defining Modern App Development

*Intermediate*

ROCKFORD LHOTKA

Tuesday, March 8, 9:15 – 10:30am

We've entered the era of "modern apps," where users expect a more intuitive, productive and compelling experience from their computers and devices. They expect a similar app experience on their phone, their tablet and their computer. All this must be transparently supported by a cloud-based infrastructure (public or private) so the app has their data and settings everywhere they go. In this session, you'll see how and why Modern Apps are so important to you and your users, and you'll understand the high level process for designing and building this type of app.

### ■ T10 Modern App Architecture

*Intermediate*

BRENT EDWARDS

Tuesday, March 8, 10:45am – 12:00pm

There's a lot of technology involved when architecting and developing modern apps. You need an architecture that can support multiple disparate client operating systems and platforms, and yet hopefully take advantage of a set of services. You have to balance that against the desire to reuse as much code as possible between clients and the server and architecture becomes a serious challenge. In this session, you'll learn about several options for modern app architecture with discussion about the pros and cons of each.

### ■ T15 ALM with Visual Studio Online and Git

*Intermediate*

BRIAN RANDELL

Tuesday, March 8, 1:30 – 2:45pm

This session gets you started on the right foot by walking through the process of setting up a project in Visual Studio Online (Microsoft's cloud-based version of TFS), including using version control (TF VC or Git), configuring teams, gathering requirements, and reporting. You'll also learn how to establish effective Visual Studio solutions as well as project organization to support a robust application architecture. Leaving this session, you'll not only be able to set up your own Visual Studio Online account and Visual Studio projects, but you'll understand how to use Visual Studio Online to gather and manage requirements and the overall project lifecycle.

You will learn:

- What Visual Studio Online is and why you'd use it
- How to choose between TF VC and Git
- How project management doesn't have to be a bad thing

## SESSION DESCRIPTIONS BY TRACK (continued)

### ■ T20 DevOps and Modern Applications

*Intermediate*

DAN NORDQUIST

Tuesday, March 8, 3:00 – 4:15pm

The term “DevOps” refers to the growing overlap between software developers’ and IT experts’ responsibilities. This session explores that overlap, demonstrating tools like TFS, Chef, Puppet and Docker to handle continuous integration, automated deployment and scripted environments. You’ll leave with a working understanding of tools frequently used in DevOps, and be prepared to apply these concepts to their own applications, whether deployed on-premises or in the cloud.

### ■ W05 Reusing Logic Across Platforms

*Intermediate*

KEVIN FORD

Wednesday, March 9, 8:00 – 9:15am

Enterprise applications span multiple platforms. Now there’s an opportunity to write them all in .NET using Microsoft and Xamarin tools. There is an increased benefit in sharing code and logic for these different platforms. This session will examine how code linking, universal shared projects and PCLs can help write logic once and run on different platforms like Windows Store Applications, Xamarin iOS, Xamarin Android and Windows Phone. You’ll also look at how MVVM frameworks like MVVM Cross can help use the same logic for the platforms you target.

### ■ W10 Coding for Quality and Maintainability

*Intermediate*

JASON BOCK

Wednesday, March 9, 9:30 – 10:45am

Cost-effective enterprise software development requires an entire team focused on ensuring quality is present right from the beginning and at every step in the process.

Much of this work involves some form of testing to verify the application works as expected. In this session, you’ll learn how to implement effective strategies using unit testing and code analysis for your modern app code across various operating systems and platforms. Even the most basic code testing regimen provides amazing value to any software development effort. You owe it to yourself and your organization to get started, or to continually improve your existing process.

### ■ W15 Start Thinking Like a Designer

*Intermediate*

ANTHONY HANDLEY

Wednesday, March 9, 1:30 – 2:45pm

Although quality business and data layers are critical to any application, users see and interact with the application through its interface. Modern apps have set a higher bar in terms of productivity, aesthetics, platform integration and usability by putting designer/developer collaboration at the forefront of the development process. But what if you don’t have a dedicated user experience designer? In this session, you’ll learn some new ways of thinking that will help you step in the shoes of the designer and start to reimagine your own approach to modern application development.

### ■ W20 Applied UX: iOS, Android, Windows

*Intermediate*

ANTHONY HANDLEY

Wednesday, March 9, 3:00 – 4:15pm

Each of the major device platforms has its own set of UX gestures, features, and user expectations. But do you really have to implement a different user experience for each phone, tablet, and desktop computing scenario? When should you follow guidelines and UI conventions? When does brand consistency across multiple platforms matter more? In this session, you’ll learn how and when to reuse UX concepts across platforms, and when you really do

need to provide a custom implementation for one or more platforms or device types.

### ■ W25 Leveraging Azure Services

*Intermediate*

BRENT EDWARDS

Wednesday, March 9, 4:30 – 5:45pm

Microsoft Azure provides powerful support for modern app development, covering the needs of mobile and enterprise development efforts. In this session, you’ll learn how to take advantage of several Azure services, bringing them all together to support a modern app that includes mobile, Web, and BI features. The features discussed include blob storage, SQL Server, Mobile Services and Web Sites.

### ■ TH05 Building for the Modern Web with JavaScript Applications

*Intermediate*

ALLEN CONWAY

Thursday, March 10, 8:00 – 9:15am

Modern Web Applications built with HTML5 and JavaScript frameworks are increasingly popular both for their light weight and performance. These Web apps built with responsive features run in a modern browser and provide a rich smart client experience that is generally consistent across different browsers and platforms. In this session, you’ll learn about Modern Web Applications using a JavaScript framework as an implantation choice, their viability, advantages/disadvantages and comparison to traditional ASP.NET Web applications. With a deep supporting cast of available technologies on both the client and server side to support building a JavaScript Web application, there’s no shortage of choices. You’ll see some of the popular technologies used in building a Modern Web application including AngularJS and JS/TypeScript for the front end, with a combination of WebAPI, Azure Web sites, and Azure Mobile Services on the backend.

## SESSION DESCRIPTIONS BY TRACK (continued)

### ■ TH10 Building a Modern Android App with Xamarin

*Intermediate*

KEVIN FORD

Thursday, March 10, 9:30 – 10:45am

iOS and Android are the most popular development targets for mobile apps, providing usability on phones and tablets. Xamarin is a powerful toolset that allows developers to write native Android and iOS apps using C#. In this session, you'll learn how to use Xamarin.Forms, MvvmCross, C# and XAML to build iOS and Android client apps that reuse the same business logic as a UWP (Windows 10) client app, as well as leveraging the same back-end services as the Windows, iOS and JavaScript clients.

### ■ TH15 Building a Modern Windows 10 Universal App

*Intermediate*

NICK LANDRY

Thursday, March 10, 11:00am – 12:15pm

The Universal Windows Platform (UWP) allows you to write one app that can run on any Windows 10 device, from phones to tablets to desktop computers. In this session you'll learn how to build a UWP app that automatically adapts to various screen sizes and formats, as well as reusing the same business logic as Xamarin apps for iOS and Android.

### ■ TH20 Panel: Decoding Mobile Technologies

ROCKFORD LHOTKA

Thursday, March 10, 1:45 – 3:00pm

Details will be released soon.

### ■ TH25 Analyzing Results with Power BI

*Intermediate*

SCOTT DIEHL

Thursday, March 10, 3:15 – 4:30pm

In today's world, users increasingly expect data collected by their apps to be available for analysis in rich and flexible ways using the latest versions of SQL Server, Office (specifically Excel), and cloud-based services such as Azure SQL and PowerBI, the newest addition to Microsoft's data visualization and data mash-up family of tools. In this whirlwind session, you'll learn the basic design concepts and implementation techniques for establishing a data analysis model, and you'll see how PowerBI works to enable flexible access and enterprise data analysis.



## CONFERENCE ADVISORY BOARD

### Andrew Brust

Senior Director, Datameer  
Visual Studio Live! Conference Co-Chair



Andrew Brust is Senior Director, Technical Product Marketing and Evangelism at Datameer (datameer.com) and writes a blog for ZDNet called "Big on Data" (zdnet.com/blog/big-data). Andrew is co-author of "Programming Microsoft SQL Server 2012" (Microsoft Press); an advisor to NYTECH, the New York Technology Council; co-moderator of Big On Data - New York's Data Intelligence Meetup; serves as Microsoft Regional Director and MVP; and writes the Redmond Review column for VisualStudioMagazine.com.

### Michael Desmond

Editor in Chief, MSDN Magazine



Michael Desmond is editor in chief of MSDN Magazine, Microsoft's flagship publication for software developers working with Microsoft tools and technologies. A 20-year veteran in IT and technology publishing, Desmond was an editor at PC World magazine for six years before launching an editorial consultancy that did work for leading technology firms like IBM, Intel and Sun Microsystems.

### Michael Domingo

Editor in Chief, Visual Studio Magazine



Michael Domingo is Editor in Chief of Visual Studio Magazine. He's been a technology journalist for more than 20 years, covering database management systems, technology certifications, and the breadth of Microsoft development and networking tools over those years. You can find him on Twitter @domingophoto.

### Rockford Lhotka

CTO, Magenic  
Visual Studio Live! Conference Co-Chair



Rockford Lhotka is the CTO of Magenic, and is the creator of the widely used CSLA .NET development framework. He is the author of numerous books on software development, and regularly speaks at major conferences around the world. Rockford is a Microsoft Regional Director and MVP. Magenic (magenic.com) is a company that specializes in planning, designing, building and maintaining your enterprise's most mission critical systems. For more information go to lhotka.net.

### Lafe Low

Editor, Visual Studio Live!



Lafe Low has been a technology editor and writer for more than 25 years. Most recently, he was the editor in chief of TechNet magazine. He has also held various editorial positions with Redmond magazine, CIO magazine and InfoWorld. He also launched his own magazine entitled Explore New England, and has published four editions of his guidebook The Best in Tent Camping: New England.

### Brian Randell

Partner, MCW Technologies  
Visual Studio Live! Conference Co-Chair



Brian A. Randell is a Partner with MCW Technologies LLC. For more than 20 years he has been building software solutions. He educates teams on Microsoft technologies via writing and training—both in-person and on demand. He's also a consultant for companies small and large, worldwide, including Fortune 100 companies like Microsoft. Brian is a passionate software craftsman who still enjoys coding as he helps teams to improve their processes from idea to shipping to production management and monitoring. In addition, he's become obsessed over the last few years with natural user interfaces and how to create compelling user experiences regardless of platform. In early 2010, he toured the world prepping Microsoft employees and Microsoft partners for the Microsoft Visual Studio 2010 launch. In 2012, he and his team built some of the first training content and demos for Microsoft using Visual Studio 2012, Team Foundation Server 2012, and Windows 8. For the 2013 release, he continued building new ALM content for use worldwide by Microsoft. He's currently a Visual Studio ALM MVP and co-author of "Professional Application Lifecycle Management with Visual Studio 2013" from Wrox Publishing. When not working, Brian enjoys spending time with his wife and two children who enjoy making him look bad on the Xbox One (with and without Kinect).

## CONFERENCE SPEAKERS

### Jason Bock

*Practice Lead, Magenic*



Jason Bock is a Practice Lead for Magenic (<http://www.magenic.com>) and a Microsoft MVP (C#). He has worked on a number of business applications using a diverse set of substrates and languages such as C#, .NET, and Java. He is the author of

"Metaprogramming in .NET", "Applied .NET Attributes", and "CIL Programming: Under the Hood of .NET". He has written numerous articles on software development issues and has presented at a number of conferences and user groups. He is a leader of the Twin Cities Code Camp (<http://www.twincitiescodecamp.com>). Jason holds a Master's degree in Electrical Engineering from Marquette University. Visit his web site at <http://www.jasonbock.net>.

### Robert Boedigheimer

*Principal Systems Developer, Schwans Shared Services, LLC*



Robert Boedigheimer works for Schwans Shared Services, LLC providing business solutions with web technologies and leads Robert Boedigheimer Consulting, LLC. Robert has been designing and developing web sites for the past 15 years including the

early days of ASP and ASP.NET. He is a columnist for [aspalliance.com](http://aspalliance.com), a Pluralsight Author, an ASP.NET MVP, an author, a MCPD: ASP.NET 3.5, and a 3rd degree black belt in Tae Kwon Do. Robert has spoken at industry conferences including Visual Studio Live!, Heartland Developers Conference, DevLink, DevTeach, Tulsa Tech Fest, DevWeek, DevReach, SDC, TechEd, AJAXWorld, and numerous national and international events.

### Eric D. Boyd

*Founder and CEO, responsiveX*



Eric D. Boyd is the Founder and CEO of responsiveX, a Windows Azure MVP, and a regular speaker at national conferences, regional code camps and local user groups. He is so passionate about apps and cloud services that he founded responsiveX ([www.responsiveX.com](http://www.responsiveX.com)), a management and technology

consultancy that helps customers create great web, mobile and client experiences, and these apps are often powered by cloud services. Eric launched his technology career almost two decades ago with a web development startup and has served in multiple roles since including developer, consultant, technology executive and business owner. You can find Eric blogging at <http://www.EricDBoyd.com> and on Twitter at <http://twitter.com/EricDBoyd>.

### Miguel Castro

*Principal Consultant, Melvicorp LLC*



Whether playing on the local Radio Shack's TRS-80 or designing systems for clients around the globe, Miguel has been writing software since he was 12 years old. He insists on staying heavily involved and up-to-date on all aspects of software application design

& development, and projects that diversity onto the type of training and consulting he provides to his customers and believes that it's never just about understand the technologies, but how technologies work together. In fact, it is on this concept that Miguel based two of his Pluralsight courses, Building End-to-End Multi-Client Service Oriented Applications, which was #1 for several weeks, and Developing Extensible Software. Miguel is a Microsoft MVP since 2005 and when he's not consulting or training, Miguel speaks at conferences around the world, practices combining on-stage tech and comedy, and never misses a Formula 1 race. But best of all, he's the proud father of a very tech-savvy 10 year old girl, and a proud husband to the woman that homeschools her.

### Allen Conway

*Lead Consultant, Magenic*



Allen Conway is a Lead Consultant for Magenic ([www.magenic.com](http://www.magenic.com)) that is an advocate of Microsoft .NET technologies and the Microsoft platform both professionally and personally. He enjoys the challenge and creativity behind software engineering, and hopes to give back to others in the community by speaking and on this blog at <http://allen-conway-dotnet.blogspot.com>.

### Benjamin Day

*Benjamin Day Consulting, Inc.*



Benjamin Day is a consultant and trainer specializing in software best practices using Scrum with Microsoft's ALM tools. Ben's main areas of emphasis include Team Foundation Server, Scrum, software testing, and software architecture. He is a Microsoft

Visual Studio ALM MVP, a certified Scrum trainer via Scrum.org, and a speaker at conferences such as TechEd, Agile, Visual Studio Live!, and DevTeach. When not developing software, Ben's been known to go running and sea kayaking in order to balance out his love of cheese, cured meats, and champagne. He can be contacted via <http://www.benday.com>.

### Marcel de Vries

*CTO, Xpirit*



Marcel spends most of his time helping organizations build Enterprise Applications and implementing Application Lifecycle Management (ALM) practices and tooling. Marcel works for a new start-up company called Xpirit that provides premium consulting services on ALM, Cloud, enterprise mobility and Security. His job title there is Chief Technical Manager (CTO). As CTO Marcel spends most of his time looking at how new emerging technologies can help organizations build better quality software and do this is a more productive way. Marcel has a passion for learning new technologies and teaching the things he learned on the way when applying technology to solve business problems. Marcel works as a consultant in the field of Application Lifecycle Management, Cloud application architectures and Cross platform Enterprise Mobile app development. Marcel writes for websites and magazines like: MSDN, The Architecture journal and local magazines like SDN Magazine. Marcel is a frequent speaker at industry conferences like Microsoft TechDays, Visual Studio Live!, Microsoft Tech Ed and local user group events. Marcel also spends a lot of time teaching topics like Visual Studio ALM, Windows Workflow Foundation, Xamarin Mobile app development and Web development. In his spare time he

## CONFERENCE SPEAKERS (continued)

is also an author of online courses at Pluralsight. Marcel is awarded by Microsoft the Microsoft ALM MVP award and is also a Microsoft Regional Director.

### Ben Dewey

*Mobile Practice Lead, Windows Division, Tallan Inc.*



Ben Dewey is a Microsoft MVP, INETA Community Speaker, and published author with over 16 years of experience writing applications and continually striving to create SOLID applications of the highest craftsmanship while paying special attention to clean User Experiences (UX). Ben is currently leading the Windows Division of the Mobile Practice at Tallan, Inc. and consults regularly in New York City on Web, XAML, and Cloud based technologies. He has also worked to deploy numerous high-quality, engaging apps to the Windows Store. When he's not consulting, Ben is busy training, mentoring, blogging and speaking at various conferences and community events around the country. He also recently authored the book "A Guide to Windows 8 Apps", published by O'Reilly. Outside of work, Ben spends most of his time playing with his three young kids, working around the house, or, if it's windy, kitesurfing. You can find Ben online on Twitter, StackOverflow, or on his blog at <http://bendewey.com/blog>.

### Scott Diehl

*Practice Lead, Magenic*



Scott Diehl is Magenic's Practice Lead for Platform and Servers, which includes Data and Analytics, Content Management and Collaboration, System Integration, and related Cloud platform technologies. A seasoned, 20-year veteran of the software industry, Scott is an experienced software professional and development manager who combines strong analytical, technical, and communication skills, making him equally capable of strategic planning, detailed implementation and effective team leadership. Scott's primary technical domain is business intelligence and data management, where he advocates strongly for business-driven approaches to data warehouse systems and guides teams

to deliver recognizable value early and often. Scott holds a BA from Purdue University, and MA from Penn State University.

### Mike Douglas

*Solution Consultant, Deliveron Consulting Services*



Mike Douglas is a Solution Consultant at Deliveron Consulting Services. He specializes in working with development teams to implement Application Lifecycle Management (ALM) solutions to eliminate traditional silos between development, testing, and project management to establish cohesive processes with the Visual Studio ALM tools. He is also Microsoft Visual Studio ALM MVP and an Microsoft ALM Ranger. He maintains the open source project, Team Deploy, on CodePlex for deploying MSIs using Team Foundation Server and has a Windows 8 Store App published to help distributed teams point user stories in TFS called TFS Agile Poker. Mike also enjoys sharing his experiences in Visual Studio ALM and DevOps on his blog at [www.CodeSmartNotHard.com](http://www.CodeSmartNotHard.com).

### Brent Edwards

*Associate Principal Consultant, Magenic*



Brent Edwards is an Associate Principal Consultant for Magenic and a co-founder of the Twin Cities Windows 8 User Group. He is an accomplished software developer, architect, mentor, and speaker with over 8 years of experience in developing innovative solutions with Microsoft technologies. Brent has worked on projects ranging from ASP.NET MVC with jQuery to WPF to Silverlight. He is also the author of MVVM Fabric (<http://mvvmfabric.com/>), a free MVVM framework for WPF. In addition to Microsoft technologies, Brent develops applications for the Android platform. His apps have over two million downloads and he was selected by Google as a Top Android Developer for their Device Seeding Program. When not cranking out code, you can find him hanging out with his wife and four kids or riding his wakeboard, snowboard or mountain bike. Check out his blog at <http://brentedwards.net> and follow him on twitter @brentledwards.

### Kevin Ford

*Mobile Practice Lead, Magenic*



Kevin Ford is the Mobile Practice Lead with Magenic leading development with native mobile technologies, Xamarin and Cordova. For over twenty years he has worked with enterprise application development using the Microsoft stack and moved to native to follow his passion for creating innovative solutions in a quickly evolving space. Kevin is an accomplished architect and thought leader at Magenic and continues to build and expand as the mobile space changes. He works with each region to ensure that Magenic consultants have the right relationships, resources, and opportunities to advance their mobile technical skills. Kevin holds an MBA from Babson.

### Robert Green

*Technical Evangelist, Microsoft*



Robert Green is a Technical Evangelist in the Developer & Platform Evangelism (DPE) group at Microsoft. He focuses on Visual Studio and Windows 8 enterprise development. Robert is the host of the Visual Studio Toolbox show on Channel 9.

This is his second stint at Microsoft. From 2005 to 2010 he was a Sr. Consultant with MCW Technologies, focused on developer training. He authored or co-authored a number of Visual Studio and .NET courses for AppDev. Prior to that, in his first stint at Microsoft, he worked in Developer Tools marketing and then as the Community Lead on the Visual Basic team.

### Anthony Handley

*UX Practice Lead, Magenic*



A 17-year design veteran, Anthony Handley leads Magenic's user experience design practice and is a five-time recipient of the Microsoft MVP Award. In the design and technology communities, he is a passionate advocate of compelling, intuitive experiences. As a thought leader at Magenic, Anthony and his team help clients bring exceptional user experiences to

## CONFERENCE SPEAKERS (continued)

their customers across a variety of channels and platforms including Windows 8, Windows Phone, iOS, Android and the Web.

### Ben Hoelting

*Director of Technology, Aspenware*



Director of Technology for Aspenware, C# MVP and Telerik Insider. He graduated from Colorado State University in 1997 with a BS in Computer Information Systems and a Minor in Computer Science. Ben joined the IT industry in 1996 as an intern and has worked with .NET since its inception back in 2002. Over the last few years he has done some work for the Department of Defense. He left the government world and now works for Aspenware in Denver. His most recent projects include a XAML line of business application that uses the ADO.NET Entity Framework to access the backend data store. He also is working on an MS Office automation project as well as geospatial ASP.NET MVC website. Ben is a Microsoft Certified Technology Specialist (MCTS) for Web and Windows .NET 4.0. His blog is at <http://www.benhblog.com> and his twitter stream is at <http://twitter.com/benhnet>. Finally, Ben is very involved in the local .NET community and is the leader of the South Colorado .NET User Group.

### Billy Hollis

*Next Version Systems*



Billy Hollis is an author and software developer from Nashville, Tennessee. Billy is co-author of the first book ever published on Visual Basic .NET, VB .NET Programming on the Public Beta. He has written many articles, and is a frequent speaker at conferences. He is the Regional Director of Developer Relations in Nashville for Microsoft, and runs a consulting company focusing on Microsoft.NET. You can visit his website at: [www.billyhollis.com](http://www.billyhollis.com).

### Steve Hughes

*Business Intelligence Architect, Pragmatic Works*



Steve is a Business Intelligence Architect at Pragmatic Works. He works with Microsoft's SQL Server stack and Windows Azure to deliver data and business intelligence solutions. Steve has been working with technology for over 15 years with much of that time spent on creating business intelligence solutions including in-memory models, multidimensional databases, reporting solutions, and data marts. One of his passions is using data effectively and helping customers understand that data is valuable and profitable. Steve blogs about his passion and work at [www.dataonwheels.com](http://www.dataonwheels.com).

### Richard Hundhausen

*Consultant / Trainer, Accentient*



Richard has over 30 years of software development experience and over 20 years of training experience. Richard is a Microsoft Regional Director, a Visual Studio ALM MVP, a certified Professional Scrum Trainer, and author of several software development books including Professional Scrum Development with Microsoft Visual Studio 2012 by Microsoft Press.

### Philip Japikse

*Principal Software Engineer, Strategic Data Systems, Inc.*



A Principal Software Engineer with Strategic Data Systems (<http://www.sds-consulting.com>), international speaker, Microsoft MVP, ASPInsider, MCSD, CSM, and CSP, and a passionate member of the developer community, Phil Japikse has been working with .NET since the first betas, developing software for over 30 years, and heavily involved in the agile community since 2005. Phil is the Lead Director for the Cincinnati .NET User's Group ([www.cinnug.org](http://www.cinnug.org)) and the Cincinnati Software Architect Group, co-hosts the Hallway Conversations podcast ([www.hallwayconversations.com](http://www.hallwayconversations.com)), founded the Cincinnati Day of Agile ([www.dayofagile.org](http://www.dayofagile.org)), and volunteers for the National Ski Patrol. Phil enjoys to continuously learn new tech and is always striving to

improving his craft. You can follow Phil on twitter via [www.twitter.com/skimedic](http://www.twitter.com/skimedic) and read his blog at [www.skimedic.com/blog](http://www.skimedic.com/blog).

### Iqbal Khan

*President & Technology Evangelist, Alachisoft*



Iqbal Khan is the President & Technology Evangelist at Alachisoft. Iqbal has over 25 years of architecture, design, and development experience. Iqbal did his MS in Computer Science from Indiana University, Bloomington in 1990. Iqbal has given numerous architectural talks at conferences and online. In addition to this, Iqbal has written extensively in leading magazines including MSDN Magazine, Visual Studio Magazine, TechNet Magazine and others.

### Deborah Kurata

*President, InStep Technologies, Inc.*



Deborah Kurata is cofounder of InStep Technologies Inc., a professional consulting firm that focuses on turning your business vision into reality using Microsoft .NET technologies. She has over 15 years of experience in architecting, designing, and developing successful applications. Deborah has authored several books, including the "Doing Objects in Visual Basic" series (Addison-Wesley), "Best Kept Secrets in .NET" (Apress) and "Doing Web Development: Client-Side Techniques" (Apress). Deborah speaks at conferences such as VSLive, DevDays, and TechEd. For her work in support of software development and software developers, she has been recognized with the Microsoft Most Valuable Professional (MVP) award. After a hard day of coding and taking care of her family, Deborah enjoys blowing stuff up (on the Xbox of course).

### Nick Landry

*Senior Technical Evangelist, Microsoft*



Nick Landry (@ActiveNick) is a mobility pioneer specializing in the design and production of mobile applications for consumers and the enterprise using diverse cross-platform technologies including



## CONFERENCE SPEAKERS (continued)

Windows Phone, Windows 8, iOS, Android, Mobile Web, Xamarin and PhoneGap. Nick works at Microsoft as a Senior Technical Evangelist in the New York Metro area and engages with developers, students and IT pros to help them learn, adopt and use the Microsoft developer platform to design and build the next generation of apps for Windows Phone, Windows 8 and Windows Azure. Nick is also a Nokia Developer Ambassador whose mandate is to educate and support Windows Phone developers to maximize their success. Prior to joining Microsoft, Nick spent almost two years as a Senior Product Manager for mobile, data visualization and geospatial developer tools across multiple technologies and platforms. He previously spent most his career in IT consulting and services organizations across various technical and business roles, designing, building, managing and selling innovative software solutions for some of the world's top brands and Fortune 500 companies. Known for his dynamic and engaging style, he is a frequent speaker at major software development conferences worldwide like Visual Studio Live!, CodePalousa, Prairie DevCon, HDC, DevTeach, Xamarin Evolve, TechEd, and others. Nick was a 10-year Microsoft MVP awarded on Windows Phone Development, and is a Nokia Developer Champion. With over 20 years of professional experience, Nick is a developer and software architect by trade and specializes in Cross-Platform Mobility, Location Intelligence & Geospatial development, Data Visualization, Cloud Computing and Mobile Game Development. He authored multiple technical magazine articles, white papers, and mobility courses, has been a technical editor for IT books, and holds several professional certifications. Blog: [www.AgeofMobility.com](http://www.AgeofMobility.com) – LinkedIn: [www.linkedin.com/in/activenick](http://www.linkedin.com/in/activenick)

### Steve Lasker

*Program Manager, Visual Studio Cloud Platform Tools, Microsoft*



Steve is Program Manager in the Visual Studio Cloud Platform Tools team focusing on consuming services. In the past Steve has worked on various technologies including Silverlight, Windows Phone, SQL Server Compact, Sync Services for ADO.net/Sync Framework, and many other data and service scenarios.

Prior to joining Microsoft in 2003, Steve was a technical architect with an early, circa 1990, eCommerce company. He moved from New York to run the development group for a consulting firm in Dallas building web, client and mobile device applications for corporate customers. With an engineering background in the remote broadcasting industry Steve lived the life of the road warrior/mobile workforce where he gained his passion for the occasionally connected road warrior who was just trying to get their job done.

### Vishwas Lele

*Architect, AIS*



Vishwas Lele is an AIS Chief Technology Officer and is responsible for the company vision and execution of creating business solutions using .NET technologies. Vishwas brings close to 20 years of experience and thought leadership to his position, and has been at AIS for 13 years. A noted industry speaker and author, Vishwas is the Microsoft Regional Director for the Washington, D.C. area and a member of the Connected Systems Division Advisors group. Additionally, Vishwas has received an MVP (Most Valuable Professional) for Solution Architecture award for 2009.

### Rockford Lhotka

*CTO, Magenic  
Visual Studio Live! Conference Co-Chair*



Rockford Lhotka is the CTO of Magenic, and is the creator of the widely used CSLA .NET development framework. He is the author of numerous books on software development, and regularly speaks at major conferences around the world. Rockford is a Microsoft Regional Director and MVP. Magenic ([magenic.com](http://magenic.com)) is a company that specializes in planning, designing, building and maintaining your enterprise's most mission critical systems. For more information go to [lhotka.net](http://lhotka.net).

### Leonard Lobel

*CTO, Sleek Technologies, Inc.*



Leonard Lobel is the chief technology officer (CTO) and co-founder of Sleek Technologies, Inc., a New York-based development shop with an early adopter philosophy toward new technologies that services organizations ranging from small shops to high-profile clients. He is also a principal consultant at Tallan, Inc., a Microsoft Gold Certified Partner. Programming since 1979, Lenni specializes in Microsoft-based solutions, with experience that spans a variety of business domains, including publishing, financial, wholesale/retail, health care, and e-commerce. Lenni is also a Microsoft MVP for SQL Server, lead author of the MS Press book "Programming Microsoft SQL Server 2008" (currently being updated for SQL Server 2012), consultant, trainer, and frequent speaker at local user group meetings, Visual Studio Live!, SQL PASS, and other industry conferences. He can be reached at [lenni.lobel@sleektech.com](mailto:lenni.lobel@sleektech.com).

### James McCaffrey

*Research Software Engineer, Microsoft Research, Microsoft*



James McCaffrey works for Microsoft Research in Redmond, WA. James has a Ph.D. from the University of Southern California, an M.S. in information systems from Hawaii Pacific University, a B.A. in mathematics from the University of California at Irvine, and a B.A. in psychology from California State University at Fullerton. James has worked on several key Microsoft products, including Internet Explorer and Bing, and is the Senior Contributing Editor for Microsoft's MSDN Magazine.

### Mark Michaelis

*Chief Software Architect, IntelliTect*



Mark Michaelis (<http://IntelliTect.com/Mark>) is the founder of IntelliTect and serves as the Chief Technical Architect and Trainer. Since 1996, he has been a Microsoft MVP for C#, Visual Studio Team System, and the Windows SDK and in 2007 he was

## CONFERENCE SPEAKERS (continued)

recognized as a Microsoft Regional Director. He also serves on several Microsoft software design review teams, including C#, the Connected Systems Division, and VSTS. Mark speaks at developer conferences and has written numerous articles and books - Essential C# 5.0 is his most recent. Mark holds a Bachelor of Arts in Philosophy from the University of Illinois and a Masters in Computer Science from the Illinois Institute of Technology. When not bonding with his computer, Mark is busy with his family or training for another triathlon (having completed the Ironman in 2008). Mark lives in Spokane, Washington, with his wife Elisabeth and three children, Benjamin, Hanna and Abigail.

### **Ted Neward** CTO, iTrellis



Ted Neward is a programming language, virtual machine, and enterprise-scale architect. He is the CTO of iTrellis, a company focused on helping companies ease IT pain into IT growth, and he has written a dozen books and hundreds of articles on .NET, Java, enterprise systems, mobile development, and programming languages. He resides in the Pacific Northwest, and can be found on the Internet at [www.tedneward.com](http://www.tedneward.com), [www.itrellis.com](http://www.itrellis.com), @tedneward on Twitter, and blogs at [blogs.tedneward.com](http://blogs.tedneward.com).

### **Dan Nordquist** Architect, Magenic



Dan Nordquist is a developer, writer, and speaker, well-versed in a broad range of topics. Working largely in the Microsoft stack, but a big believer in new ideas and open technology, Dan's spent two decades solving problems, leading projects, building teams, and writing code for organizations both local and global. Dan's presentations generally target a wide audience, engaging both beginners and experts with immediately useful insight.

### **Brian Noyes** CTO, Solliance



Brian Noyes is CTO and Architect at Solliance. Brian is a Microsoft Regional Director and MVP, and specializes in rich client technologies including XAML and HTML 5, as well as building the services that back them with WCF and ASP.NET Web API.

Brian has authored several books including Developer's Guide to Microsoft Prism 4, Data Binding with Windows Forms 2.0, and Smart Client Deployment with ClickOnce. He publishes articles frequently in a variety of publications and speaks at conferences worldwide including Microsoft TechEd, Visual Studio Live!, DevTeach and others. Brian got started programming as a hobby while flying F-14 Tomcats in the U.S. Navy, later turning his passion for software into his current career. You can follow Brian through his blog at <http://briannoyes.net> and Twitter @briannoyes.

### **Brian Randell** Partner, MCW Technologies Visual Studio Live! Conference Co-Chair



Brian A. Randell is a Partner with MCW Technologies LLC. For more than 20 years he has been building software solutions. He educates teams on Microsoft technologies via writing and training—both in-person and on demand. He's also a consultant for

companies small and large, worldwide, including Fortune 100 companies like Microsoft. Brian is a passionate software craftsman who still enjoys coding as he helps teams to improve their processes from idea to shipping to production management and monitoring. In addition, he's become obsessed over the last few years with natural user interfaces and how to create compelling user experiences regardless of platform. In early 2010, he toured the world prepping Microsoft employees and Microsoft partners for the Microsoft Visual Studio 2010 launch. In 2012, he and his team built some of the first training content and demos for Microsoft using Visual Studio 2012, Team Foundation Server 2012, and Windows 8. For the 2013 release, he

continued building new ALM content for use worldwide by Microsoft. He's currently a Visual Studio ALM MVP and co-author of "Professional Application Lifecycle Management with Visual Studio 2013" from Wrox Publishing. When not working, Brian enjoys spending time with his wife and two children who enjoy making him look bad on the Xbox One (with and without Kinect).

### **Walt Ritscher** Staff Author, Lynda.com at LinkedIn



Walt's enthusiasm for crafting software interfaces blossomed early. Just a few days after discovering how to move pixels around a computer screen he was devouring books on the topic of computer graphics and UI design. Before long he was sharing his discoveries with other technology buffs, a lifelong pursuit that has led to teaching engagements at universities, private training companies and the international conference circuit. As a consultant he has worked with a wide spectrum of clients, including Microsoft, HP, Intel, and Intuit. He is now a staff author at Lynda.com, part of the LinkedIn family, where his content team produces hundreds of technical training courses for software developers each year. His current UI obsession revolves around the XAML APIs. You can find his blog at [blog.xamlwonderland.com](http://blog.xamlwonderland.com) and [visualstudioadventures.com](http://visualstudioadventures.com)

### **Adam Tuliper** Sr. Technical Evangelist, Microsoft



Adam works as a Technical Evangelist for Microsoft. Prior to that he worked as a software architect in defense, finance, pharma, manufacturing, technology, and public sector fields over a span of 18+ years. He has a security background, and is deeply involved with web technologies.

# SPONSORS & EXHIBITORS

Visual Studio Live would like to recognize and thank our sponsors and partners.

## EVENT PARTNERS

### **Magenic**

#### **Magenic**

Founded in 1995 by the same technical minds that still run the company, Magenic is the leading modern application development firm that can address your organization's most complex development challenges and deliver software results. As a full-service, professional services partner that has local consultants and a proven process, Magenic will get your projects to market sooner by using premier technical talent in a flexible way that best suits your organization. Learn more at [magenic.com](http://magenic.com).



#### **Microsoft**

Founded in 1975, Microsoft (Nasdaq "MSFT") is the worldwide leader in software, services and Internet technologies for personal and business computing. Microsoft offers a wide range of innovative products and services designed to help individuals and organizations realize their full potential.  
[microsoft.com](http://microsoft.com)

## PLATINUM SPONSOR



#### **Alachisoft**

Alachisoft provides NCache, a robust 100% Native .NET Open Source distributed cache. NCache removes database and storage performance bottlenecks, and scales .NET and Java applications to extreme transaction processing at run time with zero data loss. Many NCache customers keep their data out-of-process with NCache rather than using an InProc ASP.NET standalone cache. This allows data sharing across multiple worker processes on the same machine, keeps a centralized, synchronized and highly available copy of the data without a single point of failure, and boosts performance by serving requests from a fast and scalable distributed cache. Visit at the show and [www.alachisoft.com/NCache](http://www.alachisoft.com/NCache)

# SPONSORS & EXHIBITORS (continued)

## EXHIBITORS



### RavenDB

RavenDB is a premier NoSQL database for .Net. It's a transactional, open-source document database that offers flexible data modeling designed to address requirements coming from real-world systems. RavenDB allows you to build high-performance, low-latency applications quickly and efficiently. Come visit RavenDB's core team of developers, see and hear first-hand map/reduce, SQL replication and auto indexing. You'll quickly understand why (and how) RavenDB can be the best fit for your application. [ravendb.net](http://ravendb.net)



### Raygun

Raygun is a crash reporting and real user monitoring service which helps you track errors and crashes in real-time. You can diagnose performance issues that your users encounter with one simple code snippet. Try Raygun Crash Reporting and Pulse Real User Monitoring free for 30 days to discover issues affecting your users right now. [raygun.io](http://raygun.io)

## PREMIER MEDIA PARTNER



### UserGroup.TV

Watch technical User Group presentations online for FREE  
<http://usergroup.tv>

## MEDIA PARTNER



### Canada's Technology Triangle .NET User Group

Canada's Technology Triangle .NET User Group is a community group for .NET developers in the Kitchener/Waterloo and surrounding area that provides networking opportunities for local IT professionals all while learning about the latest .NET technologies. Founded in August 2002, Canada's Technology Triangle .NET User Group continues to run today thanks to ongoing support from our sponsors, and a great team of dedicated volunteers. [www.meetup.com/CTTDNUG/](http://www.meetup.com/CTTDNUG/)

## VENUE & TRAVEL



**LAS VEGAS IS THE IDEAL FIRST STOP** for the 2016 Visual Studio Live! Campaign for Code, located near historic Route 66 and famous for endless entertainment options. Code by day, play by night, and get to know other attendees and speakers at Visual Studio Live! Las Vegas.

### Bally's Hotel & Casino

3645 Las Vegas Boulevard South  
Las Vegas, NV 89109

**Special attendee rate: \$94\***  
**Book by: February 12, 2016**

Book your [room online](#) for the Visual Studio Live! Room Block. The offer is subject to room availability, so make sure to book early.



Bally's rooms booked within the Visual Studio Live! room block include:

- Unlimited local phone calls
- Two passes to Bally's Fitness Center per day
- In-room internet access for up to two devices

### Travel

**AVIS RENT-A-CAR** is offering a discount on car rental for Visual Studio Live! Las Vegas attendees. To receive the discounted rates, call Avis at 800.331.1600 and use the Avis Worldwide Discount (AWD) number D005872, or [click here](#) to make your reservation online.

**SHUTTLE SERVICE** to and from McCarran International Airport, round trip fare starts at \$36.00 [Click Here](#).

#### **PARKING AT BALLY'S HOTEL & CASINO**

For your convenience, Bally's Hotel & Casino offers free self-parking in their Main Parking Garage.

### Visiting Las Vegas

Take advantage of all the city of Las Vegas has to offer. Visit the [Las Vegas Weekly](#) site for information on places to visit and things to do in Las Vegas.

\*The \$94.00 room rate is based on single or double occupancy and includes a \$25.00 resort fee. Rooms are subject to availability and applicable sales and local taxes.



# REGISTRATION PACKAGES

**SIGN UP** for the conference package that best meets your schedule and needs!

Register now at [www.vslive.com/lasvegas](http://www.vslive.com/lasvegas)

**Signing up 3 or more?**

Group Discounts are available! See page 38 for details.

**Are you a Visual Studio Live! or Live! 360 alumnus?**

Alumni discounts are available! See page 39 for details

## VISUAL STUDIO LIVE! 5-DAY PACKAGE

The Visual Studio Live! Las Vegas 5-Day Package is your five day all-access pass to every keynote, session, workshop and event March 7-11, 2016

### VISUAL STUDIO LIVE! 5-DAY PACKAGE INCLUDES:

- All Sessions and Keynotes
- Pre- and Post-conference workshops
- Reception
- Networking Events
- Lunch (March 7-11)
- Laptop Computer Bag
- T-shirt with Completed Survey
- Online access to all course notes and sample code

**SUPER EARLY BIRD  
THROUGH JANUARY  
20, 2016**

**\$1,895**

**Save \$400**

**EARLY BIRD  
THROUGH FEBRUARY  
19, 2016**

**\$1,995**

**Save \$300**

**STANDARD  
THROUGH MARCH 7,  
2016**

**\$2,295**

## Add the Hotel package to your Visual Studio Live! 5-Day Conference Package

The Visual Studio Live! Las Vegas 5-Day Hotel Package includes five nights at the Bally's Hotel & Casino—available Sunday night (March 6) through Thursday night (March 10), departing Friday (March 11).

**5-Day Hotel Package: \$600**

## REGISTRATION PACKAGES (continued)

### Signing up 3 or more?

Group Discounts are available! See page 38 for details.

### Are you a Visual Studio Live! or Live! 360 alumnus?

Alumni discounts are available! See page 39 for details

## VISUAL STUDIO LIVE! 3-DAY PACKAGE

The Visual Studio Live! Las Vegas 3-Day Package is your three day all-access pass to every keynote, session and event March 8-10, 2016

### VISUAL STUDIO LIVE! 3-DAY PACKAGE INCLUDES:

- All Sessions and Keynotes
- Reception
- Networking Events
- Lunch (March 8-10)
- Laptop Computer Bag
- T-shirt with Completed Survey
- Online access to all course notes and sample code

**SUPER EARLY BIRD  
THROUGH JANUARY  
20, 2016**

**\$1,395**

**Save \$400**

**EARLY BIRD  
THROUGH FEBRUARY  
19, 2016**

**\$1,495**

**Save \$300**

**STANDARD  
THROUGH MARCH 7,  
2016**

**\$1,795**

## Add the Hotel package to your Visual Studio Live! 3-Day Conference Package

The Visual Studio Live! Las Vegas 3-Day Hotel Package includes four nights at the Bally's Hotel & Casino—*available Monday night (March 7) through Thursday night (March 10), departing Friday (March 11).*

**3-Day Hotel Package: \$500**

## WORKSHOP PASS (1 DAY)

The Visual Studio Live! Las Vegas Workshop Pass grants you access to one full-day workshop on either Monday, March 7 OR Friday, March 11, 2016

**STANDARD THROUGH  
MARCH 7, 2016**

**\$550**

## REGISTRATION PACKAGES (continued)

**GROUP DISCOUNTS** are available for companies who bring 3 or more people. For question or to register your group, please call 972.304.5380

**Are you a Visual Studio Live! or Live! 360 alumnus?**  
Alumni discounts are available! See page 39 for details

### VISUAL STUDIO LIVE! 5-DAY GROUP PACKAGE

The Visual Studio Live! Las Vegas 5-Day Group Package is for groups of 3 or more attendees from the same company registering for the 5-Day Conference Package.

#### VISUAL STUDIO LIVE! 5-DAY PACKAGE INCLUDES:

- All Sessions and Keynotes
- Pre- and Post-conference workshops
- Reception
- Networking Events
- Lunch (March 7-11)
- Laptop Computer Bag
- T-shirt with Completed Survey
- Online access to all course notes and sample code

#### GROUP PRICING THROUGH MARCH 7, 2016:

**\$1,595**

**Save \$400**

### Add the Hotel package to your Visual Studio Live! 5-Day GROUP Conference Package

The Visual Studio Live! Las Vegas 5-Day Hotel Package includes five nights at the Bally's Hotel & Casino—available Sunday night (March 6) through Thursday night (March 10), departing Friday (March 11).

**5-Day Hotel Package: \$600**



## REGISTRATION PACKAGES (continued)

### VISUAL STUDIO LIVE! ALUMNI 5-DAY PACKAGE

<p>The Visual Studio Live! Las Vegas Alumni 5-Day Package is your five day all-access pass to every keynote, session, workshop and event March 7-11, 2016.</p> <p><b>VISUAL STUDIO LIVE! 5-DAY PACKAGE INCLUDES:</b></p> <ul style="list-style-type: none"> <li>• All Sessions and Keynotes</li> <li>• Pre- and Post-conference workshops</li> <li>• Reception</li> <li>• Networking Events</li> <li>• Lunch (March 7-11)</li> <li>• Laptop Computer Bag</li> <li>• T-shirt with Completed Survey</li> <li>• Online access to all course notes and sample code</li> </ul>	SUPER EARLY BIRD THROUGH JANUARY 20, 2016	EARLY BIRD THROUGH FEBRUARY 19, 2016	STANDARD THROUGH MARCH 7, 2016
	<p><b>\$1,595</b></p> <p>Save \$400</p>	<p><b>\$1,695</b></p> <p>Save \$300</p>	<p><b>\$1,995</b></p>

### Add the Hotel package to your Visual Studio Live! 5-Day Conference Package

The Visual Studio Live! Las Vegas 5-Day Hotel Package includes five nights at the Bally's Hotel & Casino—available Sunday night (March 6) through Thursday night (March 10), departing Friday (March 11).

**5-Day Hotel Package: \$600**