Visual Studio® LIVE!

EXPERT SOLUTIONS FOR .NET DEVELOPERS

REDMOND
AUGUST 14-18, 2017
MICROSOFT HEADQUARTERS

ROCK YOUR CODE TOUR • 2017

FULL TRACK OF MICROSOFT SESSIONS NOW UPDATED!

CODE AS YOU ARE

Microsoft

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TRACK TOPICS:

NEW
- Full Day Hands-On Labs
- ALM / DevOps
- Cloud Computing
- Database and Analytics
- Native Client
- Software Practices
- Visual Studio / .NET Framework
- Web Client
- Web Server

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A MESSAGE FROM THE CONFERENCE CO-CHAIRS

VISUAL STUDIO LIVE! 2017 IS INSPIRED BY ROCK AND ROLL, AND ALL THAT IS HAPPENING IN TECH. We want to help you master what's new, even as it rushes out of the firehose!

Software development changes almost every day, with amazing new tools and technologies in the cloud, on mobile devices, the Web at large, and on operating systems from Windows to MacOS and Linux. While rapid change can feel threatening, we think there's never been a better time to be a software developer – but to be a "rock star" at your craft, you'll need to have a good educational source that builds your skills.

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! Redmond, we'd like to personally invite you to do that by joining us this August on the Microsoft main campus in Redmond, WA.

We've put together an amazing lineup of sessions on: Web Server (including ASP.NET Core); Web Client (HTML5, JavaScript, Angular, and the like);

Native Client (mobile and desktop); ALM and DevOps, Database and Analytics; Azure/Cloud Computing; Software Practices; and more.

We've also got coverage on technologies like Microsoft Visual Studio 2017 / full .NET and .NET Core; Angular; TypeScript; Xamarin; WebAssembly; and XAML. Then there's our Hands-on-Labs content, covering Angular; ASP. NET Core and EF Core; and SQL Server 2016 for developers. We've got conventional workshops too, focused on ASP.NET Core and Security; Distributed Cross-Platform Application Architecture; Big Data, BI, and Data Analytics; Building Modern Web Apps with Azure; and Single Page Apps with Aurelia, Breeze, and Web API. These sessions, labs and workshops drill deep into the new subjects you need to master and the fundamentals that are always important.

Microsoft and its developer technologies are poised to move into the future, 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! Redmond and get live content and interaction with independent experts. Your career deserves nothing less.

WE HOPE TO SEE YOU THERE! ROCK OUT!

VISUAL STUDIO LIVE! CONFERENCE CO-CHAIRS

Andrew Brust
Senior Director, Market Strategy and Intelligence, Datameer

Rockford Lhotka
CTO, Magenic

Brian A. Randell
Partner, MCW Technologies

TEN REASONS TO ATTEND Visual Studio Live! Redmond

10 **IT'S LIKE ROCK AND ROLL FANTASY CAMP. BUT FOR CODE.** NEW to VSLive!™ this year, there's another full day of learning with the Sunday Hands-On Labs. Bring your laptop and learn by doing!

NEW

9 **JAM ON THE OLDIES AND THE NEW STUFF.** Get relevant, immediately usable training on what's happening on the developer landscape now, and learn what's coming next to get out ahead of the competition.

8 **WE SAVED YOUR SPOT—** @ Microsoft Headquarters! 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! Plus, you'll rub elbows with blue badges on campus, all week long!

7 **BE STARSTRUCK.** What separates Visual Studio Live! from other conferences (and internet-based training) is the unparalleled access to the speakers like: Scott Hanselman? Check. Billy Hollis? Check. Deborah Kurata? Check. Adam Tuliper? Check. Get your questions answered in-between sessions, during meals and at fun evening events.

6 **CONTENT ROCKS!!** We offer 6 full days of educational sessions and workshops on hot topics like AngularJS, ASP.NET Core, SQL Server 2016, Visual Studio 2017, WebAPI, Xamarin and more!

5 **BATTLE OF THE OPINIONS.** 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 **FEATURED TRACK: MICROSOFT-LED SESSIONS!** The "set list' of Microsoft Sessions is a work in progress—details dropping soon! With all of the announcements that came out of Build, we'll be finalizing the FULL Track of Microsoft-led sessions shortly. Be sure to check vslive.com/redmond for session updates!

3 **CODE AS YOU ARE.** Come experience the Pacific Northwest: from Jimi Hendrix to the iconic grunge revolution to modern-day rockers like Macklemore, this area is rich is tech AND rock history!

2 **SMELLS LIKE... GOOD CHOICES.** With over 90 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 **WE'RE HERE TO MAKE YOU THE STAR!** For over 24 years, Visual Studio Live! has been THE trusted resource for .NET developer-focused education!

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THE FUN STUFF:
VISUAL STUDIO LIVE! REDMOND EVENTS & ACTIVITIES

YOUR ATTENDANCE AT VISUAL STUDIO LIVE! (VSLIVE!™) REDMOND 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!

ACCESS TO THE MICROSOFT COMPANY STORE*
You bring the money, we get you special access!
Monday, August 14 & Thursday, August 17
Visual Studio Live! Redmond event attendees will have the opportunity to visit the Microsoft Company Store during their time at the conference and have access to the employee-only discount area. The company store's discount area is typically only open for Microsoft employees to purchase select Microsoft products at discounted prices, so you won't want to miss out on this great opportunity!

Access to the Microsoft Company Store

Popular home-use software titles such as Windows, Office, Office for Mac, and Streets and Trips are available. XBOX accessories and a selection of XBOX games are offered at significant savings. At the Redmond campus location, you will find one of the largest selections of Microsoft-branded PC hardware in any retail store. PC Hardware offered includes Keyboards and desktop sets, Mice, Webcams and more.

Visual Studio Live! Redmond event attendees will qualify for a pass that allows them access to the special discounts normally reserved only for Microsoft employees. Due to the amazing deals, each attendee is allowed to spend up to a maximum of $200.

VISIT THE MICROSOFT VISITOR CENTER
The Microsoft Visitor Center is open to all employees and visitors to the Microsoft campus. Come share in the excitement of their discoveries, explore some of the latest products, and meet some of the people whose ideas and creativity make Microsoft a world leader in computer and software industry.

Visit the Microsoft Visitor Center

*Restrictions apply:
Attendees will be given a voucher/form that allows them access to the employee only discount area to spend up to $200 of their own money on select Microsoft products.

All attendees must have a valid driver's license that matches the name on the voucher.

If using a credit card for payment, the name on the card must match the name on your voucher and identification.

If you are employed by a government agency or a school or university, you are not eligible for the discount pass due to Microsoft policy.

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THE FUN STUFF:
VISUAL STUDIO LIVE! REDMOND EVENTS & ACTIVITIES (continued)

LUNCH WITH THE BLUE BADGES
Monday, August 14 & Thursday, August 17
On Monday and Thursday, Visual Studio Live! attendees will have the opportunity to have lunch with the Blue Badges at The Mixer, the Microsoft employee lunch area with over 10 different restaurant options to choose from. These two extended lunch periods are also the perfect time to visit the Microsoft Visitor Center and the Microsoft Company Store. Shuttle service to and from the Commons, as well as Microsoft food coupons will be provided as part of your Visual Studio Live! registration.

MEET THE PROS
Let's face it—our talented team of speakers is the main reason you head to Visual Studio Live! events. They share your interest in the latest technologies while refusing to abandon challenging applications out there already. So why not get to know them in a different light during the breaks and networking opportunities we have planned for you in Redmond? Kick back with the people who love sharing their knowledge and experience to help you get where you want to be.

Lunch with the Blue Badges

Meet the Pros

"I REALLY ENJOYED SEEING A LOT OF CODE AND LESS SLIDES; NETWORKING WITH OTHER ATTENDEES WAS GREAT, PLUS BEING ABLE TO TALK TO SPEAKERS OUTSIDE SESSIONS WAS SO VALUABLE."

– Gudmundur Magnusson, Arion Bank

THE FUN STUFF:
VISUAL STUDIO LIVE! REDMOND EVENTS & ACTIVITIES (continued)

DINE-A-ROUND DINNER
Monday, August 14

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 the Bellevue area. 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.

MICROSOFT ASK THE EXPERTS & EXHIBITOR RECEPTION
Tuesday, August 15

Sponsored by ✓smartsheet

Visual Studio Live! Redmond's Exhibitor Reception will be combined with a 90-minute Microsoft Ask the Experts session, where you'll get a chance to talk with Microsoft product team members and speakers. Enjoy drinks and snacks while you explore the Visual Studio Live! exhibits, network with fellow attendees and get answers to your questions for the experts and the exhibitors.

BIRDS OF A FEATHER LUNCH
Wednesday, August 16

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

Birds of a Feather Lunch

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THE FUN STUFF:
VISUAL STUDIO LIVE! REDMOND EVENTS & ACTIVITIES (continued)

Set Sail!

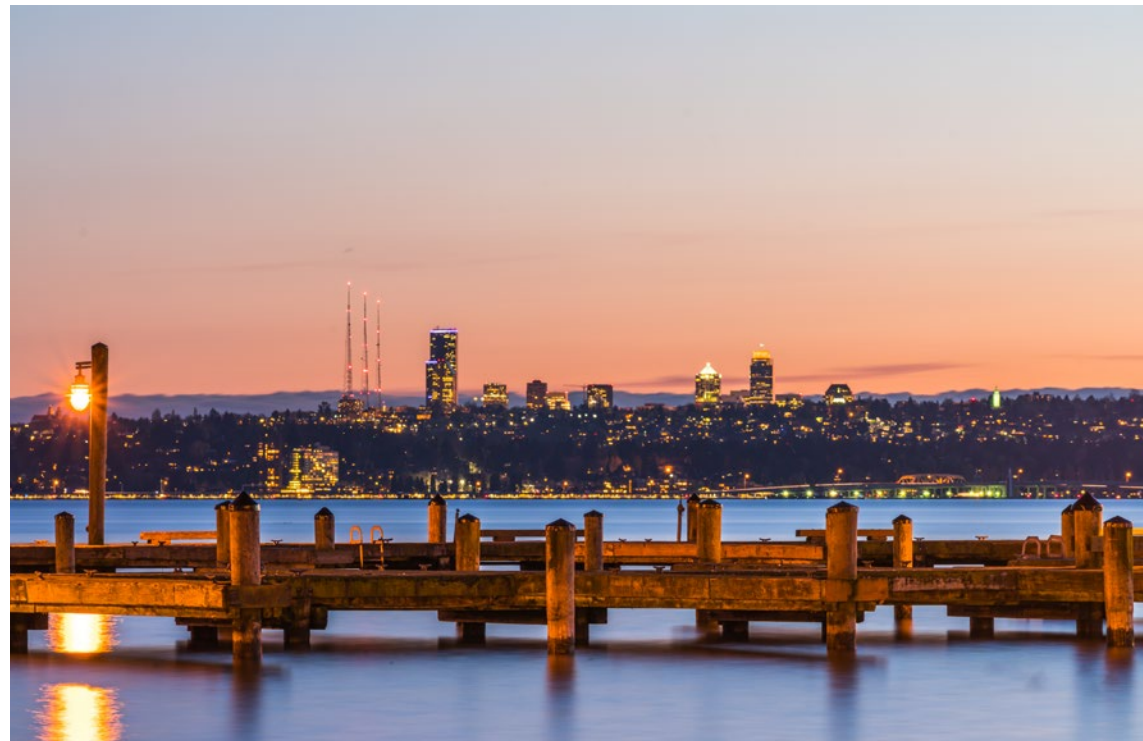### VSLIVE!'S SEATTLE SUNSET CRUISE ON LAKE WASHINGTON

Wednesday, August 16
6:15pm – 9:00pm
Pre-registration & $10 Confirmation Fee Required

Experience Seattle from the Eastside on this 90-minute narrated cruise of Lake Washington! Learn the history of the Eastside and Seattle neighborhoods bordering Lake Washington, take a swing by the Bill and Melinda Gates estate, and pass under the new Evergreen Point Floating Bridge (SR 520). Weather permitting, you'll take in breath-taking, panoramic views of the Seattle skyline and the Olympic mountain range to the west, and the majesty of Mount Rainier and the Cascade mountain range to the south and east. Complimentary light snacks and beverages will be available.

The tour will depart from the Kirkland City Dock at 7pm. Shuttles will be available from the Hyatt Regency Bellevue to the Kirkland City Dock between 6:15pm and 6:45pm. The tour will depart from the Kirkland City Dock at 7pm. Return shuttles to the Hyatt Regency Bellevue will be available from 8:30pm – 9:00pm.

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AGENDA AT-A-GLANCE

🎸 Session features a Microsoft Speaker.

ALM / DevOps	Cloud Computing	Database and Analytics	Native Client	Software Practices	Visual Studio / .NET Framework	Web Client	Web Server

NEW Full Day Hands-On Labs: Sunday, August 13, 2017 (Separate entry fee required)

START TIME	END TIME			
8:00 AM	9:00 AM	Pre-Conference HOL Workshop Registration - Coffee and Morning Pastries		
9:00 AM	6:00 PM	**HOL01** Full Day Hands-On Lab: Busy Developer's HOL on Angular - *Ted Neward*	**HOL02** Full Day Hands-On Lab: DevOps with ASP.NET Coreand EF Core - *Benjamin Day & Brian Randell*	**HOL03** Full Day Hands-On Lab: Developer Dive into SQL Server 2016 - *Leonard Lobel*

Visual Studio Live! Pre-Conference Workshops: Monday, August 14, 2017 (Separate entry fee required)

START TIME	END TIME			
7:00 AM	8:00 AM	Pre-Conference Workshop Registration - Coffee and Morning Pastries		
8:00 AM	12:00 PM	**M01** Workshop: Modern Security Architecture for ASP.NET Core - *Brock Allen*	**M02** Workshop: Distributed Cross-Platform Application Architecture - *Jason Bock & Rockford Lhotka*	**M03** Workshop: Big Data, BI and Analytics on The Microsoft Stack - *Andrew Brust*
12:00 PM	2:00 PM	Lunch @ The Mixer - Visit the Microsoft Company Store & Visitor Center		
2:00 PM	5:30 PM	**M01** *Workshop Continues*	**M02** *Workshop Continues*	**M03** *Workshop Continues*
7:00 PM	9:00 PM	Dine-A-Round Dinner		

Visual Studio Live! Day 1: Tuesday, August 15, 2017

START TIME	END TIME					
7:30 AM	8:00 AM	Registration - Coffee and Morning Pastries				
8:00 AM	9:15 AM	🎸 **T01** Go Mobile With C#, Visual Studio, and Xamarin - *James Montemagno*	**T02** Angular 101: Part 1 - *Deborah Kurata*	**T03** New SQL Server 2016 Security Features for Developers - *Leonard Lobel*	🎸 **T04** Building an Agile Culture that Scales - *Aaron Bjork*	🎸 **T05** The Future of C# - *Dustin Campbell & Mads Torgersen*
9:30 AM	10:45 AM	🎸 **T06** Building Connected and Disconnected Mobile Apps - *James Montemagno*	**T07** Angular 101: Part 2 - *Deborah Kurata*	**T08** No Schema, No Problem! Introduction to Azure DocumentDB - *Leonard Lobel*	🎸 **T09** Getting to the Core of .NET Core - *Adam Tuliper*	🎸 **T10** Building Apps with Microsoft Graph and Visual Studio - *Robert Green*
10:45 AM	11:15 AM	Sponsored Break - Visit Exhibitors				
11:15 AM	12:15 PM	🎸 **KEYNOTE: Microsoft's Open Source Developer Journey** - *Scott Hanselman, Principal Community Architect for Web Platform and Tools, Microsoft*				
12:15 PM	1:30 PM	Lunch - Visit Exhibitors				
1:30 PM	2:45 PM	**T11** Take the Tests: Can You Evaluate Good and Bad Designs? - *Billy Hollis*	**T12** Assembling the Web— A Tour of WebAssembly - *Jason Bock*	**T13** Unit Testing & Test-Driven Development (TDD) for Mere Mortals - *Benjamin Day*	🎸 **T14** Mobile DevOps with the Microsoft Stack - *Abel Wang*	🎸 **T15** Azure for .NET Developers: In Plain English - *Michael Crump*
3:00 PM	4:15 PM	**T16** A Developers Introduction to HoloLens - *Billy Hollis & Brian Randell*	**T17** Spans, Memory, and Channels—Making .NET Code Fast - *Jason Bock*	**T18** To Be Announced	**T19** Entity Framework Core for Enterprise Applications - *Benjamin Day*	🎸 **T18** Debugging Tips and Tricks for Visual Studio - *Kaycee Anderson*
4:15 PM	5:45 PM	**Microsoft Ask the Experts & Exhibitor Reception** *Sponsored by* ✓ smartsheet				

Sessions and speakers subject to change.

Continued next page

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AGENDA AT-A-GLANCE (continued)

🎸 Session features a Microsoft Speaker.

ALM / DevOps	Cloud Computing	Database and Analytics	Native Client	Software Practices	Visual Studio / .NET Framework	Web Client	Web Server

START TIME	END TIME	Visual Studio Live! Day 2: Wednesday, August 16, 2017					
7:30 AM	8:00 AM	Registration - Coffee and Morning Pastries					
8:00 AM	9:15 AM	**W01** Roll Your Own Dashboard in XAML - *Billy Hollis*	🎸 **W02** Migrating to ASP.NET Core—A True Story - *Adam Tuliper*	**W03** Hacker Trix - Learning from OWASP Top 10 - *Mike Benkovich*	**W04** Distributed Architecture: Microservices and Messaging - *Rockford Lhotka*	🎸 **W05** Architecting Big Data Solutions with Azure - *Michael Rys*	
9:30 AM	10:45 AM	**W06** Customizing Your UI for Mobile Devices: Techniques to Create a Great User Experience - *Laurent Bugnion*	**W07** User Authentication for ASP.NET Core MVC Applications - *Brock Allen*	**W08** From Containers to Data in Motion, Tour d'Azure 2017 - *Mike Benkovich*	🎸 **W09** ASP.NET Core 2.0 - *Jass Bagga*	**W10** Agile: You Keep Using That Word... - *Philip Japikse*	
11:00 AM	12:00 PM	🎸 **GENERAL SESSION**: Amplifying Human Ingenuity with Microsoft AI - *Paul Stubbs, Director of Product Marketing for AI and Bots, Microsoft*					
12:00 PM	1:30 PM	Birds-of-a-Feather Lunch - Visit Exhibitors					
1:30 PM	2:45 PM	**W11** Building Cross-platform App. Dev. with CLSA.NET - *Rockford Lhotka*	**W12** Securing Web APIs in ASP.NET Core - *Brock Allen*	**W13** Tactical DevOps with VSTS - *Brian Randell*	🎸 **W15** TypeScript and the Future of JavaScript - *Jordan Matthiesen & Bowden Kelly*	**W15** Agile Failures: Stories from The Trenches - *Philip Japikse*	
2:45 PM	3:15 PM	Sponsored Break - Exhibitor Raffle @ 2:55 pm (Must be present to win)					
3:15 PM	4:30 PM	**W16** Building Truly Universal Applications with Windows, Xamarin and MVVM - *Laurent Bugnion*	**W17** Integrating AngularJS & ASP.NET MVC - *Miguel Castro*	🎸 **W18** Get Started with Git and GitHub - *Robert Green*	**W19** SOLID—The Five Commandments of Good Software - *Chris Klug*	🎸 **W20** Using Angular 2, JavaScript, and TypeScript to Build Fast and Secure Mobile Apps - *Jordan Matthiesen*	
6:15 PM	9:00 PM	Set Sail! VSLive!'s Seattle Sunset Cruise—Advanced Reservation & $10 Fee Required					

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AGENDA AT-A-GLANCE (continued)

🎸 Session features a Microsoft Speaker.

ALM / DevOps	Cloud Computing	Database and Analytics	Native Client	Software Practices	Visual Studio / .NET Framework	Web Client	Web Server

START TIME	END TIME	Visual Studio Live! Day 3: Thursday, August 17, 2017
7:30 AM	8:00 AM	Registration - Coffee and Morning Pastries

START TIME	END TIME					
8:00 AM	9:15 AM	🎸 **TH01** Lessons Learned from Real World Xamarin.Forms Projects - *Nick Landry*	🎸 **TH02** Build Real-Time Websites and Apps with SignalR - *Rachel Appel*	**TH03** "Aurelia vs "Just Angular" a.k.a "The Framework Formerly Known as Angular 2" - *Chris Klug*	**TH04** Go Serverless with Azure Functions - *Eric D. Boyd*	🎸 **TH05** Git at Microsoft Scale - *Edward Thomson*
9:30 AM	10:45 AM	**TH06** Creating Great Looking Android Applications Using Material Design - *Kevin Ford*	**TH07** Database Lifecycle Management and the SQL Server Database - *Brian Randell*	🎸 **TH08** Hard Core ASP.NET Core - *Rachel Appel*	**TH09** Breaking Down Walls with Modern Identity - *Eric D. Boyd*	🎸 **TH10** Microsoft Set List: Details Dropping Soon
11:00 AM	12:15 PM	**TH11** Software Engineering in an Agile Environment - *David Corbin*	🎸 **TH12** Bots are the New Apps: Building Bots with ASP.NET WebAPI & Language Understanding - *Nick Landry*	**TH13** Power BI: Analytics for Desktop, Mobile and Cloud - *Andrew Brust*	**TH14** Enriching MVC Sites with Knockout JS - *Miguel Castro*	🎸 **TH15** What's New in Visual Studio 2017 for C# Developers - *Kasey Uhlenhuth*
12:15 PM	2:15 PM	Lunch @ The Mixer - Visit the Microsoft Company Store & Visitor Center				
2:15 PM	3:30 PM	**TH16** Classic Software Design Principles and Why They Are Still Important - *David Corbin*	**TH17** Getting Started with Aurelia - *Brian Noyes*	**TH18** Big Data with Hadoop, Spark and Azure HDInsight - *Andrew Brust*	**TH19** Extend and Customize the Visual Studio Environment - *Walt Ritscher*	🎸 **TH20** Serverless with Azure Functions—Scale Dynamically and Pay per Execution - *Donna Malayeri*
3:45 PM	5:00 PM	**TH21** End-to-End Dependency Injection & Testable Code - *Miguel Castro*	🎸 **TH22** Microsoft Set List: Details Dropping Soon	**TH23** Continuous Integration and Deployment for Mobile using Azure Services - *Kevin Ford*	**TH24** Windows Package Management with NuGet and Chocolatey - *Walt Ritscher*	**TH25** Securing Client Apps with IdentityServer - *Brian Noyes*

START TIME	END TIME	Visual Studio Live! Post-Conference Workshops: Friday, August 18, 2017 (Separate entry fee required)
7:30 AM	8:00 AM	Post-Conference Workshop Registration - Coffee and Morning Pastries
8:00 AM	5:00 PM	**F01** Workshop: Building Modern Web Apps with Azure - *Eric D. Boyd* **F02** Workshop: Data-Centric Single Page Apps with Aurelia, Breeze, and Web API - *Brian Noyes*

Sessions and speakers subject to change.

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FULL DAY HANDS-ON LABS

SUNDAY, AUGUST 13, 9:00AM – 6:00PM

NEW

NEW TO VISUAL STUDIO LIVE! REDMOND, these instructor-led, post-conference Hands-On Labs offer attendees intensive in-depth training. Choose from three extended 8-hour labs and take advantage of in-person instruction as well as collaboration with peers.

All labs are Bring Your Own Laptop (BYOL). Attendance for each Hands-On Lab is limited, so be sure to sign up early for these special pre-conference HOLs.

HOL01 Full Day Hands-On Lab: Busy Developer's HOL on Angular

Intermediate

TED NEWARD

In the world of the Single-Page Application (SPA), one name that appears over and over is AngularJS, a JavaScript web framework that does things a little differently— and with great effect. Getting started with AngularJS is a higher bar than some other JavaScript frameworks, though, because if you don't do things the "Angular Way," it gets real tricky real quick. This Hands-On Lab will start from zero with a little TypeScript, then start working with Angular 2—its core constructs and how it works with components, modules, and of course the ubiquitous model/view/controller approach. Bring your laptop, a buddy, and a caffeinated beverage of your choice, because once you strap in, it's going to be an exciting hands-on, lecture/lab ride.

Attendance is limited.

Attendee Requirements:
You must provide your own laptop computer for this hands-on lab.

Any development laptop with NodeJS v5.x.x (or greater) and npm v3.x.x (or greater) installed before arriving. (Check the versions by opening a command-line terminal and typing "node –v" and "npm –v".) VisualStudio Code is recommended, but not required.

HOL02 Full Day Hands-On Lab: DevOps with ASP.NET Core and EF Core

Intermediate

BENJAMIN DAY & BRIAN RANDELL

DevOps is all about software delivery. Create an automated, streamlined path from development to testing to deployment. Great. So how do you do it with ASP.NET Core and Entity Framework Core? How do you deploy the SQL Server schema? How do you deal with EF Core schema migrations? What about unit testing? How do you handle database connection strings? What about deployments to Azure? How do you get organizational buy-in? Don't worry. We've got you covered. In this hands-on lab, Brian and Ben will walk you through creating an automated DevOps flow using Visual Studio Team Services that will allow you to build, test, and deploy your ASP.NET Core & EF Core application. You will do this yourself with your own account where you can later share with y our colleagues and implement it for real on VSTS or even on TFS 2017.

You will learn:
• The psychology of DevOps in an organization and
• How to define a DevOps Pipeline
• How to work with an ASP.NET Core and EF Core application with good DevOps practices

Attendee Requirements:
You must provide your own laptop computer for this hands-on lab.

You will only need a computer that supports Wi-Fi and that can connect to a Microsoft Azure hosted virtual machine via Remote Desktop Protocol (RDP). If you're running Windows 8.1 or Windows 10, you're ready to go!

If you're running Windows 7, you'll want to make sure you're have installed the latest Remote Desktop client. You can get it at https://support.microsoft.com/en-us/kb/2923545.

You can also use a Mac running OS/X 10.7 (Lion) or later with an Intel 64-bit processor. You'll want to install the latest Microsoft Remote Desktop client from the Mac App Store. You can find it via https://itunes.apple.com/us/app/microsoft-remote-desktop/id715768417?mt=12

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⌨ FULL DAY HANDS-ON LABS (continued)

HOL03 Full Day Hands-On Lab: Developer Dive into SQL Server 2016

Intermediate

LEONARD LOBEL

Roll up your sleeves, and get ready to spend a full day learning great new features for developers in SQL Server 2016. You'll start with a vanilla database, and then adorn it—step by step—with some of the most compelling new SQL Server 2016 features, including dynamic database masking (DDM), row level security (RLS), and Always Encrypted. Then you'll "stretch" the database, which transparently relocates select tables to the cloud in Azure SQL Database), and utilize temporal tables, which enables "time-travel" queries. You'll also exploit the new JSON capabilities to consume and produce JSON in the database, integrate FILESTREAM and FileTable for native BLOB storage, and add location awareness with the geospatial data types.

Attendance is limited.

You will learn:
• New SQL Server 2016 security features such as dynamic data masking, row level security, and always encrypted
• Other new SQL Server 2016 features, such as stretch database, temporal tables, and JSON
• Beyond relational features, such as FILESTREAM, FileTable, and geospatial data types

Attendee Requirements:
You must provide your own laptop computer for this hands-on lab.

You will need a computer that supports Wi-Fi and that can connect to a Microsoft Azure hosted virtual machine via Remote Desktop Protocol (RDP). If you're running Windows 8.1 or Windows 10, you're ready to go! For the stretch database demos only, you'll also need a Microsoft Azure subscription. No worries if you don't have one though, you'll be able to follow along with the rest of the workshop without it.

If you're running Windows 7, you'll want to make sure you're have installed the latest Remote Desktop client. You can get it at https://support.microsoft.com/en-us/kb/2923545.

You can also use a Mac running OS/X 10.7 (Lion) or later with an Intel 64-bit processor. You'll want to install the latest Microsoft Remote Desktop client from the Mac App Store. You can find it via https://itunes.apple.com/us/app/microsoft-remote-desktop/id715768417?mt=12.

"THE ORGANIZATION, CLARITY, LOGISTICS AND GUIDANCE WAS EXCELLENT AND FACILITATED PRODUCTIVE NETWORKING AND TECHNICAL SKILLS DISTRIBUTION AND LEARNING."

– Scott Hanson, Claimremedi

PRE-CONFERENCE WORKSHOPS   MONDAY, AUGUST 14, 8:00am – 5:30pm

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

M01 Workshop: Modern Security Architecture for ASP.NET Core

Introductory / Intermediate

BROCK ALLEN

ASP.NET Core brings many modern approaches to building web applications. Given its importance, updates to the security architecture are also included in this modern framework. This workshop will bring you up to speed on the main components in ASP.NET Core for securing your web applications and web APIs. This includes authenticating users with middleware, implementing policy-based authorization, and proper security architecture with protocols such as OpenId Connect and OAuth2. Come and learn how ASP.NET Core satisfies these modern requirements with a modern framework.

You will learn:
• About authenticating users with middleware
• About single sign-on and federation
• About protecting web APIs with token-based security

Note: Only attendees that have pre-registered for this workshop will be able to attend.

M02 Workshop: Distributed Cross-Platform Application Architecture

Intermediate

JASON BOCK & ROCKFORD LHOTKA

Distributed computing is both a pressing concern and an age-old concept in software architecture and development. It can still be confusing and intimidating to work with systems that span multiple machines and platforms, especially with the myriad cloud-based and on-premises technologies available today. You have numerous resources at your disposal to make your distributed systems scalable, reliable, and maintainable. This workshop will cover the fundamentals of distributed computing, along with tools and frameworks you can use to build and deploy your application. You'll learn how to apply technologies such as Azure Functions, Azure Service Fabric, Signal-R, RESTful services, and more.

M03 Workshop: Big Data, BI and Analytics on The Microsoft Stack

Intermediate

ANDREW BRUST

In this workshop, we'll look at the full Microsoft BI stack, including SQL Server Analysis Services, Power BI and Excel. We'll also look at Microsoft's growing cloud Big Data and analytics stack, including HDInsight (both Hadoop and Spark), Azure Data Lake Store, Data Lake Analytics and Machine Learning. We'll explore the R programming language, and even SQL Server relational engine features like columnstore indexes and PolyBase. Perhaps most important, we'll investigate the many integrations between all of these technologies.

We'll start with the conceptual, where you'll learn what Big Data is and the fundamentals of Data Warehousing and dimensional modeling. We'll then move on to the individual technologies, starting on-premises with Excel and Analysis Services, followed by a gradual shift to mobile and the cloud with Power BI and then the full-on cloud with HDInsight and other Azure services.

Then we'll see how to mix and match technologies. Integrations like using Excel against Power BI and Analysis Services; SQL Server against HDInsight via PolyBase; HDInsight with Azure Data Lake Store; and Power BI with SQL Server Reporting Services and numerous Azure back-ends. Plus, we'll hit on the integrations of R with SQL Server, Power BI, HDInsight and Azure Machine Learning.

Working with data isn't just about relational databases and data access anymore. It's a much bigger, more exciting world than that now. There are new challenges too, but they're not insurmountable. Take in this workshop to get past them and see the cool stuff that awaits.

You will learn:
• Power BI, against an array of data sources
• Open Source Big Data technologies like Hadoop and Spark
• Fundamentals of the R programming language, including its integrations into SQL Server and Power BI

POST-CONFERENCE WORKSHOPS

FRIDAY, AUGUST 18, 8:00am – 5:00pm

F01 Workshop: Building Modern Web Apps with Azure

Introductory / Intermediate

ERIC D. BOYD

Modern web apps typically consist of web APIs, web front-ends and background jobs, and these all need to be secured with modern identity protocols like OpenId Connect and OAuth 2.0. These modern web apps typically store data in multiple data services including relational databases like SQL Server, NoSql JSON document databases, NoSql key-value stores, files, and distributed caches. And you need to provide a great experience and great performance for users using edge services for routing requests and caching data.

Microsoft Azure help these modern web apps operate by providing many data centers around the world, a large collection of services with robust web app capabilities, and a developer-friendly environment that makes it easy to create, deploy and manage your web apps.

This workshop will walk you through building a modern web app using services in Azure like App Service Web and API apps. You will learn how to do background processing using Webjobs. And you will learn how to manage your APIs with API Management. Throughout the development process, you will provision services and deploy in Azure, and learn to think about DevOps early on and use tools like Azure Resource Manager to provision services in Azure.

Next, you'll privde modern identity in our application using OpenId Connect and OAuth 2.0 with Azure Active Directory. You'll explore both the enterprise scenarios using AAD B2B, and consider the consumer scenarios using AAD B2C. Besides getting information about a user via

security claims, you will learn how to interrogate the Azure Active Directory Graph API to get additional information.

Then, you will integrate data into your application using various data services like Azure SQL Database, Azure Table and Blob Storage and DocumentDB. Lastly, we will optimize user experience and performance by using the redis cache service, routing users to data centers using Azure Traffic Manager, and caching data on edge nodes using Azure CDN. You'll also explore how we can add further capabilities using services like Azure Search, Machine Learning, Media Services, and more. If you are building modern web applications, you will not want to miss this workshop.

You will learn:
• How to secure apps with modern identity protocols using Azure Active Directory
• How to store data, using the most appropriate data service for the job
• Best Practices for providing great user experiences and performance

F02 Workshop: Data-Centric Single Page Apps with Aurelia, Breeze, and Web API

Introductory / Intermediate

BRIAN NOYES

You need to build an HTML client app as a browser app or to package as a hybrid mobile app, and there is a lot of data presentation and manipulation involved. You may be fully embracing the Single Page Application (SPA) architecture, or you may just have some highly interactive and data-centric pages you need to present. You want to make sure you end up with good, clean, maintainable, testable, and easy to implement client and

server side code. This workshop will take you end-to-end, showing you how to put together a rich data driven HTML client interface using Aurelia to separate the UI data manipulation, separate the markup and logic, and navigate between views. You'll see how to use Breeze to do the heavy lifting on making the service calls for you, tracking changes on the entities, sending changes to the server side in batches, validating inputs, and more. You'll also see how to set up the server side using ASP.NET Web API to expose the services consumed by your client, as well as to deliver your client side assets. By the end of the day, you will know how to build out the vertical slices of your app from top to bottom.

You will learn:
• How to use Aurelia for structuring your client code with the MVVM pattern, dependency injection, navigation and data binding
• How to manage rich data on the client side with BreezeJS
• How to implement CRUD-oriented services to support your SPA and deliver its HTML, CSS, and JavaScript with ASP.NET

KEYNOTE & GENERAL SESSION

Microsoft

Want a front-row seat to the future of technology? Attend the keynote address and general session for Visual Studio Live! Redmond to learn what's hot on today's tech landscape and what exciting developments lie ahead for this year and beyond.

Tuesday, August 15, 11:15am – 12:15pm

KEYNOTE: Microsoft's Open Source Developer Journey

Scott Hanselman
Principal Community Architect for Web Platform and Tools, Microsoft

Microsoft has been pushing the open source rock up the hill for almost 15 years now. Are they succeeding? How does open source .NET fit into the larger open source world? Join Scott Hanselman as he gives you both historical context AND lots of technical demos of .NET Core and ASP.NET Core.

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Wednesday, August 16, 11:00am – 12:00pm

General Session: Amplifying Human Ingenuity with Microsoft AI

Paul Stubbs
Director of Product Marketing for AI and Bots, Microsoft

As Harry Shum said, "a few years ago, it was hard to think of a commonly used technology tool that used AI. In a few years, it will be hard to imagine any technology that doesn't tap into the power of AI". Our vision is to make the power of AI available to everyone, from developers and data scientists to learning students and tech enthusiasts—to augment our capabilities as people and help us be more productive. Microsoft is delivering a flexible AI platform for organizations and developers to infuse intelligence into their products and services using tools and services like Microsoft Cognitive Services, Bot Framework, Azure Machine Learning, Cognitive Toolkit. In this general session, Paul will provide you a high-level view of the Microsoft AI Platform and show demos and code for you to amplify your ingenuity with intelligent technology.

FULL TRACK OF MICROSOFT SESSIONS NOW UPDATED!

There are many perks to attending training at Microsoft Headquarters, and one of the biggest is getting to hear from Microsoft insiders who are "in the trenches", working with developers just like you on a daily basis. These 25+ sessions feature Microsoft experts,and are a chance to hear the newest and latesttechniques from those truly in the know.

Microsoft Speakers are noted with a

Be sure to check vslive.com/redmond for session updates!

Visual Studio LIVE!
EXPERT SOLUTIONS FOR .NET DEVELOPERS

REDMOND

AUGUST 14-18, 2017
MICROSOFT HEADQUARTERS

ROCK YOUR CODE TOUR ∙ 2017

SESSION DESCRIPTIONS   BY TRACK

ALM / DevOps

Shipping high quality software may be a team sport, but doing it requires the technological equivalent of herding cats. From process management to the mechanics of automation, you need to get people, process, and tools working in harmony. Good Application Lifecycle Management practices are challenging. Add to that business demanding more from teams, more quickly, and it's clear we need to evolve. 2017 has demonstrated that DevOps continues to be the hot buzzword; but what does it mean and how do you bring it to your organization? How to do you implement it with your team?

In this track, we've got a range of sessions to help you build software that has greater quality and can be delivered continuously if your users need it. You'll find coverage of:

• Mobile DevOps with Xamarin, VSTS, and HockeyApp
• Getting Started with Git and GitHub
• DevOps with VSTS
• Unit Testing and TDD

T04 Building an Agile Culture that Scales
Introductory / Intermediate
AARON BJORK
Tuesday, August 15, 8:00 – 9:15am

Everyone accepts that agile methods and practices work... but how do you apply them at scale without stifling the creativity, autonomy, and energy of your teams? Listen as Aaron Bjork describes how Microsoft has undergone radical changes in recent years to build a culture of "Aligned Autonomy". Aaron will share stories from before and after, and talk about some of the key changes that have contributed to the new Microsoft.

T13 Unit Testing & Test-Driven Development (TDD) for Mere Mortals
Intermediate / Advanced
BENJAMIN DAY
Tuesday, August 15, 1:30 – 2:45pm

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 objects and methods in your application's code and it helps ensure you have proof 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.

This session will cover what unit testing and TDD are all about, why you should care, and how to do it with C# and ASP.NET MVC. Along the way, you'll also hear about "designing for testability" and some really helpful testability design patterns like the Strategy, Repository, and Adapter patterns.

You will learn:
• Why write unit tests?
• How to write unit tests?
• Unit tests for user interface code

T14 Mobile DevOps with the Microsoft Stack
Introductory
ABEL WANG
Tuesday, August 15, 1:30pm – 2:45pm

DevOps is the union of people, process and our products to enable continuous delivery of value to our end users. Nowhere is this more important than the world of mobile apps. However, mobile presents its own set of unique challenges. See how Microsoft simplifies this entire process with Visual Studio Mobile Center. Visual Studio Mobile Center acts as your mission control center for mobile DevOps. With just a couple clicks implement the full DevOps stack. Continuous Integration, Continuous Testing, Continuous Delivery and Continuous Learning with integrated and easy to use dashboards.

W13 Tactical DevOps with VSTS
Introductory
BRIAN RANDELL
Wednesday, August 16, 1:30 – 2:45pm

Come and spend 75 minutes digging into Visual Studio Team Services with Visual Studio 2017. No theory—just a practical drill down into the latest features you can use to take a .NET Core Web Application and get a full DevOps pipeline working on either Windows or Linux.

This session will cover storing code in private Git repos, tracking work using the Scrum Template, creating a build that runs unit tests, creating a release that runs deployment tests, and adding analytics so you know how your site is performing

You will learn:
• How to create a .NET Core Web Application
• How to manage the app development process with VSTS
• How to create a practical DevOps pipeline

SESSION DESCRIPTIONS BY TRACK (continued)

W18 Get Started with Git and GitHub

Introductory / Intermediate

ROBERT GREEN
Wednesday, August 16, 3:15 – 4:30pm

Git has become wildly popular as a way to manage source code, as well as sharing code with others. Git is actually a free, open source distributed version control system. In this session, you will learn the basics of using Git. You will get familiar with repos, committing changes, branching and merging. You'll see how to work with both new and existing projects, how to store your code in both GitHub and Visual Studio Team Services and how to work with Git in Visual Studio and Visual Studio Code.

You will learn:
• What Git is and how to get started
• The basics of Git, including repos, committing changes, branching and merging
• How to use Git with GitHub, VSTS, Visual Studio and Visual Studio Code

TH05 Git at Microsoft Scale

Intermediate

EDWARD THOMSON
Thursday, August 17, 8:00 – 9:15am

How can you bring Git into the enterprise? Large companies have unique challenges when they move from centralized version control systems to Git. Microsoft has recently gone "all in" and is moving the entire company into Git in VSTS, including the Windows team, who works in the world's largest Git repository. Learn about the challenges involved in working with large projects in Git and techniques for managing them.

TH23 Continuous Integration and Deployment for Mobile using Azure Services

Intermediate

KEVIN FORD
Thursday, August 17, 3:45 – 5:00pm

Mobile is becoming increasingly formalized and such things as unit tests are becoming more common. This session focuses on creating continuous integration and deployment setups for mobile applications. It will also look at setting up CI and CD for mobile applications, including running platform specific unit tests as part of the build process using Xamarin Test Cloud, HockeyApp to deploy to QA groups, generating release notes and ensuring you have a git branching strategy to support your release cycle.

You will learn:
• How to setup CI and CD servers using VSTS for mobile applications (Android, iOS and UWP)
• How to create a CD build to deploy to QA groups
• How to do Platform specific unit testing

> **"MICROSOFT CAMPUS IS BEAUTIFUL AND THE CONFERENCE ROOMS ARE WELL SUITED TO THE TRAINING."**
>
> *– Louis McCoy, Merchants Automotive*

Cloud Computing

A growing number of IT practitioners believe the future of application development is service-based and in the cloud. Cloud computing offers flexible scalability and can provide a less expensive way to host many applications. Even if you're not 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:
• Bots, ASP.NET and Language Understanding
• Modern Identity in Azure
• Serverless Computing with Azure
• Containers in Azure
• OWASP in the Cloud

T10 Building Apps with Microsoft Graph and Visual Studio

Introductory

ROBERT GREEN
Tuesday, August 15, 9:30am – 10:45am

With the Microsoft Graph you can connect to the data that drives productivity – mail, calendar, contacts, documents, directory, devices, and more. In this session, you will see how to use the Graph API to build apps (desktop, Web, mobile, UWP) that make your life easier and your apps more powerful.

SESSION DESCRIPTIONS BY TRACK (continued)

You will learn:
- What the Microsoft Graph is and how you can use it your apps
- How Microsoft Graph is the gateway to Microsoft Cloud Services data and intelligence which can be used to power your apps
- How to build integrations with Office 365 using a combination of Microsoft Graph, direct service endpoints and LOB data to best serve customer needs

T15 Azure for .NET Developers: In Plain English

Introductory

MICHAEL CRUMP

Tuesday, August 15, 1:30 – 2:45pm

You keep hearing about Azure and the first thing that comes to mind is virtualization, hosting databases and deploying websites. You're a busy .NET developer that hasn't dug into it, but you're interested in learning more if it REALLY helps your business. In this session, I'm going to walk you through my experience coming from a C# client app background to the "ah-ha!" moment with the benefits of moving to the cloud. I'll take a no-nonsense approach and walk you through the pros and cons that I discovered along the way and how I made sense of all the different services. We'll also take a look at how to extend Universal Windows Platform (UWP) apps to Azure by using Windows Template Studio, which helps scaffold an app using the pages, frameworks and features that you want most! By the end of this session, you will have enough information to evaluate Azure and determine if it fits the needs of your business.

You will learn:
- The breadth of Azure platform and services and how they can help you
- How to deploy and troubleshoot Azure applications through Visual Studio 2017
- Quickly scaffold new UWP apps using Windows Template Studio
- How to monitor and scale applications through the Azure portal

W03 Hacker Trix—Learning from OWASP Top 10

Introductory / Intermediate

MIKE BENKOVICH

Wednesday, August 16, 8:00 – 9:15am

Hacking isn't a new thing, but the threat is real and continues to grow. It is always the attacker's advantage and the defender's dilemma. How do you keep your secrets safe and your data protected? In today's ever-changing technology landscape, the fundamentals of producing secure code and systems are more important than ever. Exploring the psyche of hackers, this session will expose how they think, reveal common areas where they find weakness, and identify novel ways to test your defenses against their threats. From injection attacks and cross-site scripting to security misconfigurations and broken session management, you'll learn about the top exploits, how they work, ways to test for them, and what you can do to help your team build more secure software in the future. You can help your company avoid being at the center of the next media frenzy over lost or compromised data.

You will learn:
- What it means to write secure code
- About OWASP's top 10 exploits and how to prevent them from compromising your site
- What tools and approaches can you use to keep your secrets safe

W08 From Containers to Data in Motion, Tour d'Azure 2017

Introductory / Intermediate

MIKE BENKOVICH

Wednesday, August 16, 9:30 – 10:45am

Since its public release in 2010, Microsoft's Azure platform has evolved from basic compute and storage services into a platform providing more than 60 unique services you can combine to create a scalable, performant and reliable architecture for your business. This includes new ways of looking at compute, from microservices and dynamic compute to containers. From IoT to ingestion to Analysis and Cognition of Data in Motion, there are options and services you need to examine and understand to make smart choices.

You will learn:
- What's new with Azure services for dynamic compute, data streaming and analytics, and storage
- How to provision and demo several of these services
- About the tradeoffs and factors to consider when choosing between the services

TH04 Go Serverless with Azure Functions

Introductory / Intermediate

ERIC D. BOYD

Thursday, August 17, 8:00 – 9:15am

Idle CPU cycles are wasteful, but you probably have far more computing capacity than you actually use. Serverless computer architectures have arrived to save us from that waste. Serverless is a shift in provisioning compute resources and paying for these resources from cloud providers. Instead of deploying resources and not fully using them, you only pay for consumption and compute cycles you use.

This session will help you understand how Microsoft enables serverless compute in Azure with Azure Functions. You'll learn about serverless architectures and Azure Functions. You'll get an overview of how to get started developing and running serverless code. You'll also explore how to integrate with other services and trigger your code from events throughout Azure and even in data centers outside of Azure.

Besides the fundamentals of developing and deploying serverless code in Azure Functions, you'll learn about the tooling and DevOps capabilities that exist for working with Functions. And finally, you'll model the pricing together to understand the billing model and what to expect when

SESSION DESCRIPTIONS BY TRACK (continued)

running Azure Functions and when to use Azure Functions over other platforms.

You will learn:
- About serverless compute architecture and Azure Functions
- How to get started developing and deploying Azure Functions
- How to estimate pricing for Azure Functions

TH09 Breaking Down Walls with Modern Identity

Introductory / Intermediate

ERIC D. BOYD

Thursday, August 17, 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 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.

This session will help you learn what the standards and terminology mean, which 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:
- About modern identity standards and terminology
- When these standards apply to various scenarios
- How to get integrate modern identity into your applications

TH12 Bots are the New Apps: Building Bots with ASP.NET WebAPI & Language Understanding

Intermediate / Advanced

NICK LANDRY

Thursday, August 17, 11:00am – 12:15pm

Bots (or conversation agents) are rapidly becoming an integral part of the digital experience. They're as vital a way for users to interact with a service or application as a web site or mobile experience. Developers writing bots all face the same problems. Bots require basic I/O, they must have language and dialog skills, and they must connect to users—preferably in any conversation experience and language the user chooses.

This session will show you how to build and connect intelligent bots to interact with your users naturally wherever they are, from text/sms to Skype, Slack, Facebook, e-mail and other popular services. You'll explore the Microsoft Bot Framework, which provides just what you need to build and connect intelligent bots that interact naturally wherever your users are talking. Live demos will cover the Bot Connector in the cloud, the Bot Build SDK with ASP.NET WebAPI & C# (Node.js is also supported) and how to handle natural language input from the user with the Language Understanding Intelligent Service (LUIS) from Microsoft Cognitive Services. Every business needs bots to provide a more personal experience to its users and customers. Come learn how you can build your own bots in just a few hours.

You will learn:
- About the role of bots and conversation agents in various business scenarios
- The fundamentals of the Bot Framework, including the Bot Connector, the Bot Builder SDK and Language Understanding Intelligent Service (LUIS) from Microsoft Cognitive Services
- How to get started with building simple intelligent bots that support natural language and can interact via the web, Skype, Slack, texting and other channels

TH20 Serverless with Azure Functions—Scale Dynamically and Pay per Execution

Intermediate

DONNA MALAYERI

Thursday, August 17, 2:15 – 3:30pm

Azure Functions is Microsoft's serverless compute offering. Azure Functions is event-based, so you can trigger from a queue message, blob, a timer, or even a OneDrive file. You pay per execution and the platform automatically scales based on the rate of events. In this session, we'll describe the concepts behind serverless computing and show how easy it is to author Azure Functions in Visual Studio. You can run, debug, and even trigger on events in Azure. For monitoring, Azure Functions integrates with Application Insights. This provides rich queries and alerting, making it easy to understand how your application is performing. This demo-rich session will teach you how to create your own functions using the best-in-class Visual Studio tooling.

> **"I ENJOYED THE OPPORTUNITIES TO ASK QUESTIONS OF THE SPEAKERS AND EXHIBITORS. IT WAS ALSO NICE TO MEET OTHER DEVELOPERS FROM ALL OVER THE WORLD. I REALLY LIKED HAVING A MOBILE APP TO KEEP ME ON TRACK WITH THE SESSIONS I PLANNED TO ATTEND."**
>
> *– Aaron Wergeland, Insperity*

SESSION DESCRIPTIONS BY TRACK (continued)

Database and Analytics

SQL Server 2016 is here. But NoSQL databases are here as well. Then there's Big Data and data lakes. And meanwhile, the fundamentals of .NET data app development are still important, especially now that .NET Core is here. When it comes to data, Visual Studio Live! helps you keep up with the old and the new; the traditional and the disruptive, with coverage including:

• Big Data with Hadoop, Spark, and Azure HDInsight

• Power BI for Desktop, Mobile, and Cloud

• DevOps with SQL Server Databases

• Entity Framework Core for Enterprise Applications

• DocumentDB

• A Tour of SQL Server 2016 Security Features

T03 New SQL Server 2016 Security Features for Developers

Intermediate

LEONARD LOBEL

Tuesday, August 15, 8:00 – 9:15am

The SQL Server 2016 database engine has been greatly enhanced for security, with three new features you'll learn about in this demo-packed session. With dynamic data masking (DDM), you can fully or partially conceal sensitive columns from query results. Masking does not modify data on in the table, it simply hides data from users that don't have access permission. Row-level security (RLS) also hides data from unauthorized users, but at the row level. With RLS, you can create your own security policy to control

which users can read or write specific rows in the table. Finally, Always Encrypted (AE) uses client-side encryption to ensure data is encrypted in flight, not just at rest. And the encryption keys are accessible only to the client. This guarantees that data cannot be decrypted on the server, easing the migration path to the cloud for users with highly sensitive data.

You will learn:

• How dynamic data masking (DDM) can hide sensitive columns from unauthorized users

• About row-level security (RLS) to filter or block individual rows from different users

• About Always Encrypted (AE), a new client-side database encryption technology available in SQL Server 2016

T08 No Schema, No Problem! Introduction to Azure DocumentDB

Introductory

LEONARD LOBEL

Tuesday, August 15, 9:30 – 10:45am

Like other NoSQL platforms, Azure DocumentDB supports a schema-free data model, uses replicas for fast write performance, and scales easily. DocumentDB also has several unique features that make it a compelling candidate for NoSQL scenarios. This session will present an overview of Azure DocumentDB, a new massively-scalable and fully managed NoSQL database platform designed specifically for modern web and mobile applications.

The session starts with a detailed explanation NoSQL and document databases in general, and how they compare with traditional relational database platforms. Then you'll tour the many features of DocumentDB, including rich querying with SQL (that's right, you can query this NoSQL database using SQL), and client development using the REST API and the many available DocumentDB SDKs. You'll also learn about the server-side programming model that lets you write fully transactional stored procedures,

triggers, and user-defined functions. You'll also explore tunable consistency, scale-out partitioning, custom indexing, attachments, and more. Attend this session and you will get up to speed on DocumentDB.

You will learn:

• About NoSQL, document databases, and Microsoft Azure DocumentDB

• About the differences between NoSQL and relational database platforms, and when to choose one or the other for your next application

• About the unique NoSQL features of DocumentDB, including rich query over schema-free data, client development, server-side programming, tunable consistency, indexing, partitioning, and attachments

T19 Entity Framework Core for Enterprise Applications

Intermediate / Advanced

BENJAMIN DAY

Tuesday, August 15, 3:00 – 4:15pm

What do you do when your simple Entity Framework app isn't so simple anymore? Entity relationships are becoming more complex. You're getting worried about performance problems. Can you even use Entity Framework in a high-performance, scalable web application?

This session will go beyond the simple Code First entity framework cases and get into more complex class designs and relationships. You'll learn how to handle sticky issues around lazy-loading, concurrency, cascading deletes, occasional connectedness, and performance testing. You'll also talk strategy for DevOps, stored procedures, unit testing, and incremental deployment.

You will learn:

• About controlling and planning for unpredictable behaviors like lazy loading and cascading deletes

• About finding performance and concurrency problems in Entity Framework

• Unit testing techniques

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SESSION DESCRIPTIONS BY TRACK (continued)

W05 Architecting Big Data Solutions with Azure

Intermediate

MICHAEL RYS

Wednesday, August 16, 8:00 – 9:15am

Many companies are realizing that building their own data lake and Big Data processing solution on premise is more complex than managing a traditional database/data warehousing environment. Moving their data lakes into the cloud provides benefits around scalability, capital and even operational costs. This session will give you an overview of how to architect big data solutions such as lambda architectures in Microsoft Azure and walk you through the necessary components reaching from ingestion with Stream Analytics, over data and process orchestration with Data Factory, Big Data processing with either or both HDInsight/Hadoop and Azure Data Lake, to analytics with SQL Data Warehouse, and explain and contrast some of the capabilities of each of the components.

TH07 Database Lifecycle Management and the SQL Server Database

Intermediate

BRIAN RANDELL

Thursday, August 17, 9:30 – 10:45am

DevOps is hot, but all too often the database is the missing link. How do you manage the necessary changes need to support your applications? How do you track these changes and follow a change from development to test to production? You need an effective database lifecycle management plan. In this session, you'll learn where the SQL Server database fits in to DevOps, and how you

can use tools to extend your infrastructure to make the database a first class citizen, just like your source code. You'll see how to track changes with version control, 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. To do all this, you'll learn the process as well as see examples using the Visual Studio SQL Server Database Tools, Team Foundation Server Team Build, Release Management, as well as custom tools from Redgate.

You will learn:
• Why you need DevOps for your database
• How to define a good Database Lifecycle Management (DLM) process
• How to use Microsoft and Redgate tools to implement the DLM process

TH13 Power BI: Analytics for Desktop, Mobile and Cloud

Intermediate

ANDREW BRUST

Thursday, August 17, 11:00am – 12:15pm

Power BI has become a powerhouse in the Microsoft Data Platform and a juggernaut across the industry. It offers a free cloud service, along with a professional subscription for $10 a month. Power BI Desktop also gives you massive analytics power right on your PC. Mobile devices, including those running iOS and Android, can also access Power BI cloud assets as well as on-premises SQL Server 2016 Mobile Reports. And Microsoft updates Power BI every few weeks. There's a lot to consider. This session will bring you fully up-to-date on what Power BI has to offer. You'll walk out with expertise and readiness to take it all on.

TH18 Big Data with Hadoop, Spark and Azure HDInsight

Intermediate

ANDREW BRUST

Thursday, August 17, 2:15 – 3:30pm

As Big Data starts to move beyond the hype cycle, Hadoop is reaching critical mass as a true enterprise computing tool. Microsoft's flavor of Hadoop, Azure HDInsight, has matured a great deal. It's now available in Linux, as well as the original Windows version. It has also added support for Apache Spark, which changes the game significantly. This session will help you learn about Hadoop and Spark, how they work, how to get them running on the Azure cloud and how to integrate them with SQL Server, Power BI and Excel.

> **"LOTS OF INTERESTING SOLUTIONS THAT WERE RELATIVE TO THE TIMES, PLUS THE WORKING DEMOS THAT SHOWED NON-TRIVIAL PRODUCTION TYPE CODE WERE GREAT!**
>
> *– Novy Dhillon, Electronic Arts (Canada)*

SESSION DESCRIPTIONS BY TRACK (continued)

Native Client

Native applications—whether they're on Windows, iOS and Android—are of utmost importance. Mobile apps are becoming a common vehicle to help people interact with each other, their organizations, and their business applications. In the desktop arena, it's easy to forget there are still more than a billion Windows PCs in the world and Windows remains the dominant OS. This track is focused on building native mobile apps with tools like Xamarin and Windows apps using both WPF technology and the newer Universal Windows Platform (UWP) that let your apps run on Windows 10 PCs, phones and IoT devices among others. This track includes coverage of the following:

This track includes:

- C# Xamarin for Building Mobile Apps
- Building Connected and Disconnected Mobile Apps
- Good and Bad Design for UX
- Introduction to HoloLens for Developers
- Build Dashboards with XAML
- Custom Mobile UI for Mobile Devices
- Building Cross-Platform Business Apps with CSLA .NET
- MVVM with Xamarin Apps
- Real-world lessons learned from Xamarin.Forms Projects
- Material Design and Android Apps

T01 Go Mobile With C#, Visual Studio, and Xamarin

Introductory / Intermediate

JAMES MONTEMAGNO

Tuesday, August 15, 8:00 – 9:15am

The mobile landscape continues to evolve at a rapid pace. Users expect great native experiences in the palm of their hands on each and every platform. The separate programming languages and tools to learn and maintain for each platform are a major hurdle. Even if you tackle the burden of learning Objective-C, Swift, or Java, you'll still have to manage multiple code bases. This is a nightmare for any development team, but it doesn't have to be this way. You can create Android, iOS, Windows Phone, and Windows Store apps leveraging the .NET framework and everything you love about C#.

This session will teach you about Xamarin and how it can help you leverage a shared C# code base across all mobile platforms. You'll walk you through developing, designing, deploying, and optimizing your first mobile apps for iOS, Android, and Windows from a single code base. You'll even see how to share more code with Xamarin.Forms, which lets you build native UIs for iOS, Android and Windows Phone from a single, shared C# codebase. You'll walk away with the knowledge to build cross platform mobile app with C# features such as LINQ, async/await, events, and delegates and inside of both Visual Studio and Xamarin Studio.

You will learn:
- How to apply C# and Visual Studio skills for mobile development
- About assessment tools for determining how much existing C# code can be mobilized
- About architectural best practices

T06 Building Connected and Disconnected Mobile Apps

Intermediate

JAMES MONTEMAGNO

Tuesday, August 15, 9:30 – 10:45am

Creating a great connected experience across multiple platforms is an essential element of great mobile applications. What happens when there is little to no connectivity, such as on an airplane or in some foreign countries? Does your mobile app effortlessly synchronize data when the device gets back online? Your users expect and deserve this type of behavior, but developing your own cloud backend and an API across all operating environments is time consuming and error prone. Managing multiple projects, languages, IDEs, and continuous integration processes is not sustainable. Fear not, industry leaders such as Amazon, Couchbase, and Microsoft can help solve this problem on iOS, Android, and Windows mobile devices. This session investigates the wide range of options for creating both a connected and unconnected mobile experience. Come see a full implementation using the latest features of Azure App Service and mobile apps across iOS, Android, and Windows with Xamarin.

You will learn:
- The hows and whys of disconnected mobile application
- About the options available to craft great mobile experiences
- How to build your first Azure connected and disconnected mobile app

SESSION DESCRIPTIONS BY TRACK (continued)

T11 Take the Tests: Can You Evaluate Good and Bad Designs?

Introductory

BILLY HOLLIS

Tuesday, August 15, 1:30 – 2:45pm

One of the best ways to learn design concepts is to look at real world examples—both good and bad—and understand what makes them tick. During this session, you'll examine some of the best examples of design tests over the last eight years. For each test, you'll face a challenge, and then see how you fared with an analysis of the test and its answers.

You will learn:
- About good and bad examples of design in software and in the real world
- How to analyze the designs and understand where they went right and wrong
- About examples that may lead to better designs in your own applications

T16 A Developers Introduction to HoloLens

Introductory

BILLY HOLLIS & BRIAN RANDELL

Tuesday, August 15, 3:00 – 4:15pm

Windows Holographic and the HoloLens device promises to open new doors for developers and customers alike. This session will introduce you to the world of Windows Holographic and HoloLens. You'll learn the skills you need to get started, and what existing programming skills you can leverage. Just as the web and WPF changed how you designed and built applications, Windows Holographic introduces additional design and development constraints. You'll see how you can develop for HoloLens even if you don't have a device. You'll see HoloLens in action and be able to enter a drawing for a chance to actually try the HoloLens.

W01 Roll Your Own Dashboard in XAML

Intermediate

BILLY HOLLIS

Wednesday, August 16, 8:00 – 9:15am

XAML is well-suited to dynamic interfaces such as dashboards. Most XAML developers are more accustomed to static user interfaces, though, and aren't experienced with creating dynamic, pluggable user interfaces. This session will present a simple architecture for a dashboard that allows pluggable panels, with options for the user to select panels and determine their position. If your business users have been clamoring for a place to put important visual components not needed by all users, this session can help get you started.

W06 Customizing Your UI for Mobile Devices: Techniques to Create a Great User Experience

Intermediate

LAURENT BUGNION

Wednesday, August 16, 9:30 – 10:45am

Today's applications are developed for a number of devices, screen sizes, form factors and capabilities. While much of the underlying code can be shared across the platforms using frameworks like Xamarin or the Universal Windows Platform, you need to spend time on the user interface to customize and adapt it to the screen upon which it's running. This is a manual process that requires some experience with the visual designers, as well as techniques like design-time data, the responsive design patterns ("the 6 Rs") and some tips to bend the visual designers to your advantage. This session will present demos of Blend and XAML, Xamarin.Android, Xamarin.iOS and Xamarin.Forms. You'll leave the session with a lot of tricks up your sleeve to create a better user experience that delights your users on every on every device.

You will learn:
- About design patterns to help your application to shine on all platforms and form factors
- How to make the best of the visual designers by learning techniques that will make your workflow much more effective

W11 Building Cross-platform App. Dev. with CLSA.NET

Intermediate

ROCKFORD LHOTKA

Wednesday, August 16, 1:30 – 2:45pm

You may write your smart client app in UWP, Xamarin, WPF, or even Windows Forms. In each case, your app probably calls back-end services and needs to interact with app servers. Some or all of your business logic runs on the client, the app server, or both. That's the ideal for the balance between user interactivity, performance, scalability, and security. The widely-used open source CSLA .NET framework helps you create a reusable, scalable, and cross-platform portable business layer that lets your application run on multiple types of client devices while sharing business logic between the clients and your app server. This session is an end-to-end walkthrough of how this works and how you can benefit.

W16 Building Truly Universal Applications with Windows, Xamarin and MVVM

Intermediate

LAURENT BUGNION

Wednesday, August 16, 3:15 – 4:30pm

With Windows 10 supporting an unprecedented number of platforms and form factors (from IoT and phones to tablets and laptops, from desktops to Xbox and SurfaceHub to even the new HoloGraphic computer HoloLens), the name "Windows 10 Universal application"

SESSION DESCRIPTIONS BY TRACK (continued)

is fairly accurate. To be honest, though, a truly Universal application should also run on Windows 7, iOS and Android devices.

Thankfully, you can do this thanks to a clever architecture pattern named Model-View-ViewModel, the .NET portable class libraries and the Xamarin frameworks. With these tools, you can structure an application so most of the code is shared across all the platforms. Then you can build truly native UI that adapts without any compromises to the device upon which it runs. This session will help you understand how to build such universal applications. You'll gain practical knowledge with a lot of demos. The creator of the popular MVVM Light Toolkit will show you how to leverage this simple but powerful library to help you target more users than you ever imagined.

You will learn:
• Where Xamarin shines for cross platform applications
• How to share and test even more code
• How MVVM Light helps you save time

⬤ TH01 Lessons Learned from Real World Xamarin.Forms Projects

Intermediate / Advanced

NICK LANDRY

Thursday, August 17, 8:00 – 9:15am

Sometimes it's not the 101 tutorial you need to help you in your development journey, but to just talk to someone who has experience implementing technology in the real world. What are the gotchas, things to avoid, or best practices others have learned that can give you a leg up in implementing a new technology. This session will cover real-world considerations in Xamarin.Forms projects, such as UI design considerations when sharing a user experience across iOS, Android and Windows, including navigation paradigms, styling, and supporting older versions. You'll also look at code-sharing pitfalls and best practices, choosing an MVVM framework, application resource

sharing, and leveraging plugins and the Dependency Service to leverage platform-specific code. This session will also discuss mobile DevOps, including source control in a cross-platform environment, gathering application analytics, crash logs, and handling app-flighting during development and beta testing.

You will learn:
• About the key decisions you'll have to make before undertaking a mobile cross-platform project
• About Xamarin.Forms best practices derived from real-world experiences
• The role of DevOps in mobile app development, and how to implement a successful mobile DevOps strategy

TH06 Creating Great Looking Android Applications Using Material Design

Intermediate

KEVIN FORD

Thursday, August 17, 9:30 – 10:45am

Android Lollipop introduced the Material Design Guidelines. These have substantially changed the appearance of Android applications. There are numerous new controls and style considerations for implementing the interfaces your designers are creating. This session looks at the CardView, RecyclerView, styles and even Marshmallow concepts like the text selection, and look at examples in Xamarin and Java.

You will learn:
• About Android Material Design
• How to use the AppCompat V7 library to get at material design components
• About the practical implementation of material design controls and styles

Software Practices

☑ Every developer knows there's more to software development than just code and tooling. The practices and techniques we use to understand and analyze the problem space, to manage interpersonal communication and conflict, and other patterns and practices are key to success.

Topics in this track include:

• Dependency Injection
• Classis Design Principles
• Software Engineer in an Agile Environment
• SOLID for Good Software
• Agile Failures: Stories From The Trenches
• What does Agile really mean?
• Distributed Architecture: Microservices and Messaging

W04 Distributed Architecture: Microservices and Messaging

Intermediate

ROCKFORD LHOTKA

Wednesday, August 16, 8:00 – 9:15am

Building distributed systems provides great benefits in terms of reliability, scalability, deployment flexibility, decoupling of disparate services and apps, and so on. Actually realizing these benefits can be a challenge. It requires architects and developers pay a lot of attention to app and service boundaries, messaging patterns, and data ownership. This session is an architecture-focused dive

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into distributed systems design, including the creation of microservices, apps, and the messaging patterns used to communicate between them.

You will learn:
• About the challenges you'll face when trying to realize the benefits of distributed systems
• How to manage service and app boundaries to achieve practical decoupling
• About messaging patterns key to successful interaction across the services and apps in a distributed system

W10 Agile: You Keep Using That Word...

Intermediate

PHILIP JAPIKSE

Wednesday, August 16, 9:30 – 10:45am

Much like the dotcom boom when everyone declared themselves a programmer, after David Norton (of Gartner Research) declared agile mainstream on August 26, 2009, you can't throw a stone without hitting someone who claims to be an "Agilista." From the proliferation of "agile" frameworks and certifications to all the people who decided to hang out a shingle as a coach, it can be hard to remember the true essence of agile. This session will cut through the hype and gets down to the roots of what it means to be agile.

You will learn:
• The true tenets of agile
• How to improve transparency
• How to improve collaboration
• How to improve continuously

W15 Agile Failures: Stories from The Trenches

Intermediate

PHILIP JAPIKSE

Wednesday, August 16, 1:30 – 2:45pm

When agile first burst on the scene, there was a lot of discussion about how agile isn't just a silver bullet, but "the" silver bullet. But is it really? Projects have continued to fail, even after agile went mainstream. This session looks at a series of failed projects, examines the root causes, and the lessons learned from those failures. Fast failure and careful retrospective is the best way to continuously improve.

You will learn:
• About the most common mistakes made when transitioning to agile
• How to avoid and/or resolve those mistakes

W19 SOLID—The Five Commandments of Good Software

Introductory / Intermediate

CHRIS KLUG

Wednesday, August 16, 3:15 – 4:30pm

The SOLID principles are the five commandments of the software world. They have been forgotten for years, as developers focused on JavaScript frameworks with stupid names and complicated patterns. The SOLID principles transcend frameworks and patterns. They are the foundation of building good software, the breakers of monoliths, the decouplers of coupling, and the squashers of regression bugs. One might even say they're the creators of maintainable code. Unless you're already a believer, you need to attend this session and get on the right path. You'll work through each of the principles, learn what they mean, what they will do for you, and why you should stop breaking them. You will even check out

some C# code that explains how they can help you; and problems that will haunt you if you ignore them and are face their wrath.

TH11 - Software Engineering in an Agile Environment

Introductory / Intermediate

DAVID CORBIN

Thursday, August 17, 11:00am – 12:15pm

Your team has adopted Agile practices with all of the ceremonies and artifacts–a major change to the environment. Yet you're still approaching software design, implementation, and test in the same old way. Perhaps you're ignoring certain elements altogether. Is it any wonder your team is struggling???

If you change the environment, you must change the way you work in order to succeed. This session will cover specific approaches to working styles and software design/implementations that will help your team to succeed.

You will learn:
• Why the "old ways" of designing and implementing software are not effective in the new environment
• New working habits that are compatible with the new environment
• How to change how software is designed and written so that goals are achieved

TH16 Classic Software Design Principles and Why They Are Still Important

Intermediate / Advanced

DAVID CORBIN

Thursday, August 17, 2:15 – 3:30pm

Current software development efforts are typically built on complex libraries that encapsulate many details. In these situations, attention to core design principles often get

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lost. The focus becomes moving towards just getting the pieces to work together.

There is significant evidence that many of today's developers aren't even aware of core principles that have had a major influence on creating effective and robust systems. Even developers who once regularly considered these elements now only have a dim memory. As a result, many systems currently being developed are experiencing a category of problems largely addressed many years ago.

This session will review a number of items, including the set known as SOLID [originated by "Uncle Bob" Martin nearly 15 years ago) along with items that originated with Object Oriented Design. Common problems in today's software development will correlate with the relevant underlying principles. Bringing these principles to the forefront will demonstrate and correlate how a lack of attention to the foundational principals relates to common defects. NOTE: All code examples will be in C#, but may be applied to many languages/platforms/environments.

You will learn:
• About the costs incurred when Design Principles are neglected during development in the hopes of expediting delivery
• How to apply these Design Principles to current work effort
• About developing an effective focus on the elements which have the most significant impact on achieving desired goals

TH21 End-to-End Dependency Injection & Testable Code

Intermediate

MIGUEL CASTRO
Thursday, August 17, 3:45 – 5:00pm

Dependency Injection is one of those terms advanced programmers throw out with an expectation and assumption of full understanding. It's easy to get infatuated by a cool buzz phrase, especially when you hear it from so many others. But to truly understand something, you need to understand the problem it's trying to solve. It's important to learn the concepts behind DI so you can write software that can be properly tested. In this session, you'll learn about dependency injection from concept to implementation, and use raw code samples to learn how it works and what problems it solves. You'll see a demonstration of how to write abstracted code to help you test your applications better and determine whether or not use a DI container. Then you'll learn what a DI container is and some of the characteristics and features it offers. Finally, you'll see implementation examples in three different platforms.

You will learn:
• How to use DI for everything
• How to completely eliminating class instantiation
• How to ensure across-the-board testability

Visual Studio / .NET Framework

Microsoft continues to deliver updates to its dev tools at a rapid pace. Quarterly updates to Visual Studio and Team Foundation Server (TFS) on-premises and Visual Studio Team Services (VSTS) in the cloud continue to deliver value on a regular basis. Microsoft released Visual Studio 2017 RC and Team Foundation Server 2017 RTM in November 2016 and the Visual Studio Redmond timeframe will be filled with the released version of Visual Studio 2017, updates to Visual Studio Code, cross-platform .NET Core, and the first quarterly update to TFS. The 2017 wave has tons of new features, not to mention Microsoft's continued investment into open source and cross-platform development.

Topics in this track include:
• What's new in Visual Studio 2017
• .NET Core
• Extending and Customizing the Visual Studio Environment
• Spans, Memory, and Channels for faster .NET Code
• Windows Package Management with NuGet and Chocolatey

SESSION DESCRIPTIONS BY TRACK (continued)

T05 The Future of C#

Intermediate

DUSTIN CAMPBELL & MADS TORGERSEN

Tuesday, August 15, 8:00 – 9:15am

C# is more exciting than ever! In this session, the C# language design team will paint the big picture, laying out where the C# language and tooling experience is headed. Come learn about C# 7.0, find out what C# point releases are all about, and see early glimpses of what we're working on for future versions of the language.You will learn:

T09 Getting to the Core of .NET Core

Introductory / Intermediate

ADAM TULIPER

Tuesday, August 15, 9:30 – 10:45am

The.NET Core is truly a new technology that is fast, efficient, cross platform, and open source. It also shares many similarities with the same .NET Framework you've known and loved for years. This session explains exactly what .NET Core is, but doesn't stop there. You'll also dive deep into the architecture and runtime, including how it works across different platforms like Windows, OSX, and Linux. You'll explore how your apps are loaded and who hosts them, how the runtime finds tools to run commands on, and deeper subjects like what is the muxer, getting true side by side deployment, runtime identifiers, the new .NET Platform Standard, and more.

You will learn:
• Where you can use your existing code with .NET Core
• How your applications are loaded with .NET Core
• The architecture behind .NET Core

T17 Spans, Memory, and Channels— Making .NET Code Fast

Intermediate / Advanced

JASON BOCK

Tuesday, August 15, 3:00 – 4:15am

No matter how hard you try to write high performance code in C#, at the end of the day, you're at the mercy of the runtime and its implementation. There are areas in .NET where it could do better, but fear not. There is work being done in the .NET community to reduce memory allocations and improve an application's response time. This session will dive into some experimental areas of .NET—specifically channels—and see what's going on in the CoreFx lab that would affect you and your code execution.

You will learn:
• How .NET is evolving
• What is currently in the works for .NET developers
• How to work with these experimental APIs to see what may happen in the near future

T20 Debugging Tips and Tricks for Visual Studio

Intermediate

KAYCEE ANDERSON

Tuesday, August 15, 3:00 – 4:15pm

Every software developer has to deal with bugs in the code, but we are rarely taught how to use debugging tools available to us. Come to this demo-driven .NET based session and learn how to #SuperChargeYourDebugging to find and fix glitches faster. We will tour most of the debugger, highlighting the best tips and tricks as we go. Whatever your experience level we guarantee you'll learn something new!

You will learn:
• How to capitalize on the Basic debugging techniques you already know
• Features you may not know about yet that make debugging faster
• Some lesser known approaches to Multithreaded Debugging

TH15 What's New in Visual Studio 2017 for C# Developers

Intermediate

KASEY UHLENHUTH

Thursday, August 17, 11:00am – 12:15pm

Visual Studio is a productivity game changer for C#! The .NET Compiler Platform ("Roslyn") enables many new experiences that will change the way you write and debug code. In this session, we'll dig into features that bring a new level of awesome to the C# language and IDE experience. Come learn about code style configuration and enforcement, refactoring support, major debugging enhancements, code-aware frameworks, and much more!

TH19 Extend and Customize the Visual Studio Environment

Introductory

WALT RITSCHER

Thursday, August 17, 2:15 – 3:30pm

Visual Studio is already a powerful IDE. When you add the extensions, third-party tools, and templates to the mix, you have a development environment you can tailor to your exact needs. This session will show you how to find, install, and use the most helpful extensions for Visual Studio. Learn how extensions like Spell Checker, Comment Remover, CodeMaid, and Productivity Power Tools can automate and speed up the way you code. You'll also

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discover how to build your own extensions and share them with other developers in the Visual Studio Gallery. You'll see how to use standalone external tools to augment the Visual Studio workflow, and create custom templates that include just the files and settings you need for your project types.

You will learn:
• How to use CodeMaid, Productivity Power Tools, and other Visual Studio extensions
• How to create custom item and project templates
• How to build your own custom extensions

TH24 Windows Package Management with NuGet and Chocolatey

Introductory

WALT RITSCHER

Thursday, August 17, 3:45 – 5:00pm

Developing software often requires you to install collections of packages (aka libraries). Managing these packages can be a task in and of itself. Doing so usually requires a package manager. This session will examine some of the most popular tools for Windows package management, including: NuGet, Chocolatey, Boxstarter, and OneGet.

You will learn:
• How to work with PowerShell and NuGet
• How to use Package Restore
• How to use the Chocolatey machine package manager to install applications and utilities
• How to use Boxstarter to create installation packages

Web Client

The browser and JavaScript provide perhaps the highest and best abstraction over every operating system, helping developers build Web apps that run across browsers, platforms and operating systems. This is possible in large part due to 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 Web app development wave based on JavaScript and HTML5:

• Angular 101 (double-session)
• A Tour of WebAssembly
• TypeScript and the future of JavaScript
• Securing Client Apps with Identity Server
• Real-time websites and apps with SignalR
• Getting Started with Aurelia
• Angular vs Aurelia
• Angular 2, JavaScript, and TypeScript for Secure Mobile Apps

T02 Angular 101: Part 1

Introductory

DEBORAH KURATA

Tuesday, August 15, 8:00 – 9:15am

This beginner-level session introduces the .NET developer to Angular, the popular JavaScript framework for building client-side applications. In this first of two parts, you'll cover key building blocks such as modules, components, and templates. Come and get a quick start to building successful Web applications with Angular.

You will learn:
• About Angular terms and concepts
• The basics of building an Angular application
• About the Angular data binding features and syntax

T07 Angular 101: Part 2

Introductory / Intermediate

DEBORAH KURATA

Tuesday, August 15, 9:30 – 10:45am

In the second of two parts, this session will cover the remaining key concepts in Angular including routing, services, observables (Reactive Extensions) and accessing data from a back-end server with http.

You will learn:
• About routing to navigate between pages
• About services for sharing data and operations
• About observables to managing asynchronous events

T12 Assembling the Web—A Tour of WebAssembly

Intermediate

JASON BOCK

Tuesday, August 15, 1:30 – 2:45pm

WebAssembly is coming to JavaScript, but what is it exactly? Is it a new VM? Is it a way to create a binary version of JavaScript? Is it a new standard to get everyone to code in C/C++ for the web? This session will demystify WebAssembly, demonstrate exactly what it is, and provide insight into how this will affect JavaScript and web development in the future.

You will learn:
• What WebAssembly is all about
• About WebAssembly in action
• About this new aspect of web development

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W14 TypeScript and the Future of JavaScript

Introductory

JORDAN MATTHIESEN & BOWDEN KELLY

Wednesday, August 16, 1:30 – 2:45pm

TypeScript has seen enormous growth over the past year. Across the board, developers are falling in love with TypeScript as they find it the most productive way to work with JavaScript. With TypeScript 2.0, it only gets better. This session will show how adding TypeScript to existing JavaScript projects is easier than ever. It will dive into the biggest features of the 2.0 release such as non-nullable types, read-only modifiers, and down-level async/await. Finally, it will cover the future of TypeScript and what you can expect in the coming months.

You will learn:
• How to get start with TypeScript
• Hear what's new in TypeScript and for TypeScript developers in Visual Studio 2017
• Get a peek at what's ahead for the TypeScript language and tools

W20 Using Angular 2, JavaScript, and TypeScript to Build Fast and Secure Mobile Apps

Introductory / Intermediate

JORDAN MATTHIESEN

Wednesday, August 16, 3:15 – 4:30pm

It's been an exciting year for JavaScript and mobile developers. The Popular Angular 2 JavaScript framework and TypeScript 2 programming language were released, as well as Ionic 2. When used together, these tools give you the best mobile JavaScript developer toolchain yet. This session will use TypeScript 2, Angular 2, and Ionic 2 to build a real-world application. Along the way, you'll learn some tips and tricks to get the most out of these tools.

You will learn:
• About Angular 2 and Ionic 2 and what role do they play in mobile development
• About TypeScript 2 and what role it plays in JavaScript development
• How to optimize editor/IDE to be the most efficient in working with these tools

TH02 Build Real-Time Websites and Apps with SignalR

Intermediate

RACHEL APPEL

Thursday, August 17, 8:00 – 9:15am

If you've ever wanted to build a highly responsive app that leverages a real-time communications library, then SignalR is for you. Real-time web functionality is the ability to have the server push messaging aggressively to the client, instead of relying on the client to make multiple and frequent requests. SignalR is a set of ASP.NET server and client libraries you can use to build real time, scalable, websites and apps. You can use SignalR in both enterprise and consumer apps, and across platforms. This session covers what you need to know to build a SignalR app that connects multiple clients instantaneously.

You will learn:
• How real time software works
• About SignalR
• About cross platform client connectivity

TH03 "Aurelia vs "just Angular" a.k.a "The Framework Formerly Known as Angular 2"

Introductory / Intermediate

CHRIS KLUG

Thursday, August 17, 8:00 – 9:15am

There are a gazillion JavaScript frameworks out there. And probably another one being released as you read this abstract. However, for a lot of Microsoft developers, the two primary frameworks are Aurelia and Angular. They fit well into the way Microsoft developers are used to writing applications. But which one is the best? Which one is the right choice? Which one will make my project a success, and which one will make it a pile of failure?

Obviously, those are some hard questions to answer. And the answer is, "It depends ... as usual." But knowing a bit about how they both work, and the pros and cons of both, does make it a lot easier, and that is exactly what this session will cover. You have a run through both frameworks, focusing on comparing them, and giving you enough information for you to make an informed choice of which one will fit you the best.

TH17 Getting Started with Aurelia

Introductory

BRIAN NOYES

Thursday, August 17, 2:15 – 3:30pm

Aurelia is a Single Page Application framework getting a lot of traction as an alternative to Angular. It includes a rich data binding system, dependency injection and modules, an intuitive and powerful routing and navigation system, and lots of extensibility throughout. This session will help introduce you to the capabilities of Aurelia and how to get started using it to build applications.

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You will learn:
• How to create an application project from scratch with Aurelia or using the Aurelia CLI or Webpack
• How to build MVVM web client applications leveraging Aurelia's data binding and dependency injection Learn how leverage the rich routing and navigation features of Aurelia

TH25 Securing Client Apps with IdentityServer

Intermediate

BRIAN NOYES

Thursday, August 17, 3:45 – 5:00pm

IdentityServer is an open source framework for building authorization servers that support a bunch of different authentication and authorization protocols, most importantly OAuth, OpenID Connect, and ADFS. In this session, you will learn about IdentityServer capabilities, how to embed it into a single Web app as a simple authorization and authentication solution that support token-based security, or to use it as a standalone authorization server that enables Single Sign On (SSO) across multiple applications.

You will learn:
• About IdentityServer's capabilities and how it compares to other options
• How to integrate IdentityServer into a single web application
• How to use IdentityServer as a standalone SSO authorization server

Web Server

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 Core 1.0, which represents a change comparable in magnitude to the original move from the classic Active Server Pages to ASP.NET.

The Visual Studio Live! ASP.NET track covers all this more. Come take in the content, to get current and stay that way, with coverage of the following:

• Angular and ASP.NET MVC

• Hard Core ASP.NET Core

• Knockout JS and MVC Sites

• Migrating to ASP.NET Core

• Secure Web APIs in ASP.NET Core

• User Authorization for ASP.NET Core and MVC

W02 Migrating to ASP.NET Core—A True Story

Introductory / Intermediate

ADAM TULIPER

Wednesday, August 16, 8:00 – 9:15am

ASP.NET Core is an amazing new framework. It also just happens to be one of the world's top 10 fastest frameworks; clocking in at around 8X faster than Node.js. When a new technology comes on the horizon though, it is hard to resist the urge to want to migrate everything over. As always, there are many considerations. This session will take you through a migration Microsoft did with an open source chat application that used SignalR, Entity Framework, Web Api, and MVC. You'll get to look at areas that were trouble, the process, and how Microsoft refactored and enhanced the migrated application.

You will learn:
• When you should migrate
• How to determine potential pain points
• From our issues and migration process

W07 User Authentication for ASP.NET Core MVC Applications

Introductory / Intermediate

BROCK ALLEN

Wednesday, August 16, 9:30 – 10:45am

ASP.NET Core is here and this means you have a fundamentally new architecture for authenticating users in your applications. This session explores what that means for your application design. This session will first look at the simple authentication scenarios such as using a traditional password for authentication and then using external social media identity providers for single sign-on. Then you'll discuss why these simple approaches are not typically sufficient and why introducing your own single sign-on provider is important to your application architecture.

You will learn:
• About authenticating users with middleware
• About supporting external authentication
• About designing for single sign-on

SESSION DESCRIPTIONS BY TRACK (continued)

W09 ASP.NET Core 2.0

Intermediate

JASS BAGGA

Wednesday, August 16, 9:30 - 10:45am

ASP.NET Core 2.0 is here! Join this demo-filled session to learn about the new developments in ASP.NET Core. This session will walk you through how ASP.NET Core 2.0 simplifies development, improves performance, and provides rich diagnostics. You'll see how easy it is to get started with ASP.NET Core 2.0 using Razor Pages, how ASP.NET Core is even better with Microsoft Azure, and everything else in between.

W12 Securing Web APIs in ASP.NET Core

Introductory / Intermediate

BROCK ALLEN

Wednesday, August 16, 1:30 – 2:45pm

Traditional security for web applications involves cookies, but web APIs have a fundamentally different security model. In fact, there are security vulnerabilities when using cookies for web APIs. So, what's the solution? Token-based authentication with OAuth2 can help. Come to this session to learn about the issues, how to get and use tokens, and how ASP.NET Core helps protect your web APIs.

You will learn:
• About protecting web APIs with token-based security
• The benefits of OAuth2
• About using middleware to protect web APIs

W17 Integrating AngularJS & ASP.NET MVC

Intermediate

MIGUEL CASTRO

Wednesday, August 16, 3:15 – 4:30pm

Angular continues to take the market on a wild ride, and its developer base continues to grow. Google wrote Angular to have no external dependencies. In fact, many developers use it with HTML alone. But Microsoft developers know ASP.NET MVC is the best delivery platform for HTML. So why not make it an equally awesome delivery platform for Angular-based apps as well? When using ASP.NET MVC, you need to know how to set Angular up with regards to modules, controllers, and services. The entire site doesn't need to be one giant Single-Page-Application. This session will show you how to design an ASP.NET MVC site to include pockets of SPA that use Angular, taking advantage of binding, routing, and even back-button support—all while remaining on the client. These techniques can also apply to any JavaScript library, not just Angular.

You will learn:
• The benefits of leveraging strengths of both technologies
• About setting up an MVC app with Angular
• How to get the two routers to play nice

TH08 Hard Core ASP.NET Core

Intermediate / Advanced

Rachel Appel

Thursday, August 17, 9:30 – 10:45am

ASP.NET Core is Microsoft's new cross-platform, open-source framework for building Web apps and APIs. This session will venture deep into the important information you need to know about ASP.NET Core, including new features and improvements over previous versions.

You'll start with the .NET CLI and move onto topics such as building your own web server, building the ASP.NET pipeline, using and creating middleware, custom configuration, hosting, and more.

You will learn:
• About ASP.NET Core
• About .NET Core
• About ASP.NET MVC

TH14 Enriching MVC Sites with Knockout JS

Intermediate

MIGUEL CASTRO

Thursday, August 17, 11:00am – 12:15pm

What? No Angular? Nope, not this time. Knockout is still awesome. It's awesome because it's simple. It does one thing—MVVM—and does it really well. Sometimes this is all you need. Yes, if you want to write an SPA-based application from scratch, Angular is the way to go. If you want to leverage your existing ASP MVC skills, but make things easier for you as a developer and richer in the UI for your users, integrating MVVM binding into CSHTML views is easy and fun with Knockout JS. This session will show you how to integrate Knockout into existing or new MVC apps and how to lay things out so your code is readable and maintainable. You'll also learn some cool techniques for some common challenges. Sometimes you don't need a sledgehammer, just a really good fly swatter.

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Andrew Brust
Senior Director, Market Strategy and Intelligence, Datameer
Visual Studio Live! Conference Co-Chair

Andrew Brust is Senior Director, Market Strategy and Intelligence at Datameer and writes for ZDNet's "Big on Data" blog. Andrew is co-author of Programming Microsoft SQL Server 2012 (Microsoft Press); has several Pluralsight courses on Big Data and NoSQL, serves as Microsoft Regional Director and is a Microsoft Data Platform MVP.

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).

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CONFERENCE SPEAKERS

Brock Allen
Consultant, Thinktecture

Currently Brock is an independent consultant specializing in .NET, web development, and web-based security with 20 years of industry experience. Brock is the co-author of many security-related open source frameworks, including IdentityServer, IdentityManager, and MembershipReboot. He also frequently posts to the ASP.NET forums, is an MVP for ASP.NET/IIS, a member of ASPInsiders, and a contributor to the ASP.NET platform.

Kaycee Anderson
Program Manager, Microsoft

Kaycee is a program manager working on the Visual Studio Debugger. She is passionate about delighting developers with core debugging experiences to help them find and fix issues in their code faster. She wants to help you #SuperChargeYourDebugging.

Rachel Appel
Senior Developer Evangelist, Microsoft

Rachel is a consultant, author, mentor, and Microsoft employee with over 20 years in the IT industry who speaks at top industry conferences such as Visual Studio Live!, Live! 360, and MIX. During her career, Rachel has worked on projects of all sizes from the smallest of apps to the largest enterprise systems at some of the world's leading companies. Rachel's expertise lies within developing solutions that align business and technology, focusing on In frameworks, languages, databases, software practices, and more.

Jass Bagga
Software Engineer, ASP.NET MVC Team, Microsoft

Jass Bagga is a Software Engineer on the ASP.NET MVC team. She works on enhancing features, fixing bugs and refactoring build tools. Previously, she interned at Microsoft in various teams including WEB Tools and NuGet Package Manager. She graduated in 2016 with a Bachelor's degree in Bioinformatics from Simon Fraser University in Canada.

Mike Benkovich
Managing Partner, Imagine Technologies, Inc.

Energy, laughter, and a contagious passion for coding—Mike brings it all with him. In a career that has taken him from minion to business owner, from database administrator (DBA) to developer, from author to evangelist, Mike has seen it all. In more than 25 years of working in the technology industry, he has been part of the latest waves to sweep the industry, and he is compelled to share it all. Whether delivering MSDN Events live or webcast presentations, on the developer resource site www.BenkoTips.com or his blog, Mike brings enthusiasm for the tools and an energy for the search to find a better way. Follow him on twitter @mbenko

Aaron Bjork
Principal Group Program Manager, Microsoft

Aaron Bjork is a Principal Group Program Manager working in Microsoft's Visual Studio division where he leads the investment in work management, agile project management, reporting, and collaboration. Aaron is a 14-year Microsoft veteran who has spent his career building tools to promote and encourage team productivity. Aaron is a recognized Agile thought leader and speaks regularly with companies around the world on how to improve their software engineering practices. Aaron joined Microsoft in 2002 working as a software engineer and development lead on the Visual Studio product line. Prior to joining Microsoft,

Aaron worked for various startups in the Seattle area. Aaron is passionate about Application Lifecycle Management (ALM) and DevOps and has a strong desire to see teams improve their software engineering practices. Aaron holds a Bachelor of Business Administration from the University of Washington. When he's not writing code, you'll find him doing projects with his family on their hobby farm or working to lower his handicap on the golf course.

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.

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), 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.

CONFERENCE SPEAKERS (continued)

Andrew Brust
Senior Director, Market Strategy and Intelligence, Datameer
Visual Studio Live! Conference Co-Chair

Andrew Brust is Senior Director, Market Strategy and Intelligence at Datameer and writes for ZDNet's "Big on Data" blog. Andrew is co-author of Programming Microsoft SQL Server 2012 (Microsoft Press); has several Pluralsight courses on Big Data and NoSQL, serves as Microsoft Regional Director and is a Microsoft Data Platform MVP.

Laurent Bugnion
Senior Technical Evangelist, Valorem

Laurent works as Senior Technical Evangelist for Valorem (previously IdentityMine), one of the leading companies (and Gold Partner) for Microsoft technologies such as Windows Presentation Foundation, Xamarin, Windows 10, XBOX, HoloLens and generally User Experience. He is based in Zurich Switzerland.

Laurent writes for MSDN magazine and other publications, codes in Windows, WPF, Xamarin (iOS and Android), Unity, ASP.NET and his blog is on blog.galasoft.ch. He is a frequent speaker at conferences such as Microsoft MIX, TechEd, VSLive, TechDays and many other international events. He is a Microsoft Most Valuable Professional (Windows Application Development) since 2007, a Microsoft Regional Director since 2014 and a Xamarin Most Valuable Professional since 2015. He is the author of the well-known open source framework MVVM Light for Windows, WPF, Xamarin, and of the popular Pluralsight reference courses about MVVM Light.

Dustin Campbell
Principal Software Engineer, .NET Developer
Experience Team, Microsoft

Dustin Campbell is a principal software engineer on the .NET Developer Experience team, where he works on the C# and Visual Basic language experiences for Visual Studio. Passionate about coding productivity, Dustin's primary focus these days is taking the C# editor cross-platform with Visual Studio Code and helping design the next version of C# as part of the language design team. Prior to his current role, he spent several years working as a program manager on Project Roslyn, designing the next-generation of the C# and VB IDE experiences. Before joining Microsoft, he developed much of the low-level plumbing of the award winning CodeRush and Refactor! products at DevExpress. Dustin is a programming nut. His favorite color is blue.

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 Sotware. 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.

David Corbin
President / Chief Architect, Dynamic Concepts
Development Corp.

David began programming during the heyday of the Mini-Computer Era, starting with the DEC PDP-8. His early career was in the Defense Industry, progressing from the company's first Software Technician to being the Technical Lead of the company's Engineering Software department. During this time, he co-founded Dynamic Concepts as a part time venture to facilitate the introduction of the "PC" into business environments [this was the same year the original IBM AT was introduced].

When the defense industry underwent a major shakeup in 1992, he transformed the part time venture into a full-time dedication to consulting. Since then Dynamic Concepts has assisted clients across the United States (and occasionally internationally) in achieving their goal using the most appropriate computer technologies.

In 2005, he was approached by Microsoft Consulting Services [MCS] and accepted a direct position with them as a Senior Field Consultant. It was during this period that deep relationships within the Developer Division of Microsoft began to be established, many of which are still vibrant (along with many new ones) a decade later.

When he returned to Dynamic Concepts as his primary focus in 2007, activities began to focus on improving the software development and delivery process via the application of ALM principles. Today, he continues to work directly with clients providing guidance in the rapidly changing ecosystem.

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CONFERENCE SPEAKERS (continued)

Michael Crump
Product Manager, Microsoft

Michael Crump is a product manager that works at Microsoft on the Azure platform. He is a is a developer, blogger and speaker of topics relating to cloud development. He's passionate about helping developers understand the benefits of the cloud in a no-nonsense way. You can reach him on Twitter at mbcrump or by following his blog at michaelcrump.net.

Benjamin Day
Consultant & Trainer, Benjamin Day Consulting, Inc.

Benjamin Day is a consultant and trainer specializing in software best practices using Microsoft 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 and Visual Studio Live! 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 www.benday.com.

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 in 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.

Scott Hanselman
Principal Community Architect for Web Platform and Tools, Microsoft

Scott is a web developer who has been blogging at http://hanselman.com for over a decade. He works in Open Source on ASP.NET and the Azure Cloud for Microsoft out of his home office in Portland, Oregon. Scott has three podcasts, http://hanselminutes.com for tech talk, http://thisdeveloperslife.com on developers' lives and loves, and http://ratchetandthegeek.com for pop culture and tech media. He's written a number of books and spoken in person to almost a half million developers worldwide.

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.

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) and the Cincinnati Software Architect Group, co-hosts the Hallway Conversations podcast (www.hallwayconversations.com), founded the Cincinnati Day of Agile (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 and read his blog at www.skimedic.com/blog.

Bowden Kelly
Program Manager, Visual Studio Team, Microsoft

Bowden is a program manager working on the JavaScript editing experience and the TypeScript language.

Chris Klug
Senior Developer, Novatrox

Chris Klug is an adrenaline loving, problem solver/creator that loves building things. He spends his days writing code and solving problems for clients at a company called Novatrox in Stockholm, and his nights sleeping. Except for the days he spends at conferences, talking about doing things he is passionate about, and the days he fills with mountain biking, kiteboarding, or RC helicopter flying.

For the last 15-something years, he has been solving problems for customers. But if he gets to choose, he'll go to the beach and kiteboard. Every time!

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CONFERENCE SPEAKERS (continued)

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 Visual Studio Live!, 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 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 – LinkedIn: www.linkedin.com/in/activenick

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.

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.

Donna Malayeri
Program Manager, Microsoft

Donna Malayeri is a program manager on the Azure Functions team, where she is responsible for the developer experience and the Visual Studio tooling. She previously worked on products such as Azure Mobile Services, Reactive Extensions (Rx), Visual F#, and Scala. She holds a PhD in programming languages from Carnegie Mellon University.

Jordan Matthiesen
Program Manager, Visual Studio Team, Microsoft

Jordan works at Microsoft on Visual Studio and JavaScript tooling for web and mobile application developers. He's been a developer for over 17 years, and currently focuses on talking to as many awesome mobile developers as possible. When not working on dev tools, you'll find him enjoying quality time with his wife, 4 kids, 2 dogs, 1 cat, and a cup of coffee.

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CONFERENCE SPEAKERS (continued)

James Montemagno
Principal Program Manager – Xamarin, Microsoft

James Montemagno is a Principal Program Manager on the Xamarin team at Microsoft. He has been a .NET developer since 2005 working in a wide range of industries including game development, printer software, and web services. Prior to becoming a Principal Program Manager, James was a professional mobile developer and has now been crafting apps since 2011 with Xamarin. In his spare time he is most likely cycling around Seattle or guzzling gallons of coffee at a local coffee shop. He can be found on Twitter @JamesMontemagno and blogs code regularly on his personal blog http://www.MotzCod.es.

Ted Neward
Director, Developer Relations, Smartsheet.com

Ted Neward is a programming language, virtual machine, and enterprise-scale architect. 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, www.itrellis.com, @tedneward on Twitter, and blogs at blogs.tedneward.com.

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 and visualstudioadventures.com

Michael Rys
Principal Program Manager, Microsoft

Michael has been doing data processing and query languages since the 1980s. He has a Ph.D. from the Swiss Federal Institute of Technology in C.S. Among other things he has been representing Microsoft on the XQuery and SQL design committees and has taken SQL Server beyond relational with XML, Geospatial and Semantic Search. Currently he is working on Big Data query languages such as SCOPE and U-SQL when he is not enjoying time with his family under water or at autocross.

CONFERENCE SPEAKERS (continued)

Paul Stubbs
Director of Product Marketing for AI and Bots, Microsoft

Paul Stubbs is a Director of Product Marketing for AI and Bots at Microsoft, educating and exciting customers and developers on how to create cross platform intelligent experiences using Microsoft Cognitive Services, Machine Learning, Cognitive Toolkit, Cortana, and the Bot Framework. Previously Paul was a Principal Content Publishing Manager on the Microsoft Office Extensibility team that produces code-first samples, patterns, solutions, and documentation. Paul also served as the Chief Architect for the Microsoft Services WW Azure Center of Excellence team. Learn more at http://aka.ms/paulstubbs

Edward Thomson
Program Manager for Version Control, Microsoft

Edward Thomson is a Program Manager for Version Control at Microsoft, where he ensures that customers are successful using Git in Visual Studio Team Services. He was previously an engineer for version control tools at Microsoft, GitHub and SourceGear, and is the maintainer of the libgit2 project. Edward is the author of Git for Visual Studio training from O'Reilly Media and a contributing author to Professional Team Foundation Server 2013 from Wrox.

Mads Torgersen
Program Manager, Microsoft

Mads is a program manager at Microsoft, and the design lead for the C# language. He's also contributed to TypeScript, Roslyn, and Visual Basic.

Adam Tuliper
Principal Software Engineer, DX, Microsoft

Adam is a Principal Software Engineer for Microsoft's Developer Experience division (DX). Adam lives in Southern California and helps others realize their technical vision across the web, gaming, cloud, phone, console, and desktop platforms. He is heavily addicted to his HoloLens, .NET Core, bots, Unity, and most .NET based technologies. He co-runs the Orange County Unity meetup. Prior to Microsoft he worked as a software architect in defense, finance, pharma, manufacturing, technology, and public sector fields over a span of 20+ years. He presents nationwide at conferences such as //build & GDC, loves speaking at user groups and universities, is a pluralsight.com author and an MSDN Magazine author. Catch him on twitter @AdamTuliper

Kasey Uhlenhuth
Program Manager, .NET Managed Languages Team, Microsoft

Kasey is a program manager on the .NET Managed Languages team at Microsoft and is currently working on improving .NET developer productivity. Previously, she worked on C# Interactive and Node.js Tools for Visual Studio.

Abel Wang
Sr. Developer Technology Specialist, Microsoft

Abel Wang is a Senior Technical Solutions Professional on the Developer Experience team in Microsoft focusing on developer tools including Visual Studio, Visual Studio Team Services and Team Foundation Server. Before joining Microsoft, Abel spent seven years as a Process Consultant and a Certified Scrum Master helping customers globally develop solutions using agile practices and Team Foundation Server. Prior to that, Abel founded and sold his own software company. Abel is also an avid programmer and musician.

Visual Studio LIVE! EXPERT SOLUTIONS FOR .NET DEVELOPERS | **REDMOND** | **AUGUST 14-18, 2017** MICROSOFT HEADQUARTERS

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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.
www.microsoft.com

GOLD SPONSORS

Smartsheet

Smartsheet is aiming to take down the next category of enterprise collaboration by delivering SaaS solutions that help companies manage and automate work. Located in Bellevue, WA, we are growing like mad, having gone from 30 employees in 2012 to over 500 in 2017.
www.smartsheet.com

SILVER SPONSOR

Progress

Progress (NASDAQ: PRGS) is a global leader in application development, empowering enterprises to build mission-critical business applications to succeed in an evolving business environment. With offerings spanning web, mobile and data for on-premise and cloud environments, Progress powers businesses worldwide, promoting success one application at a time. Learn about Progress at **www.progress.com** or 1-781-280-4000.

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Syncfusion is the enterprise technology partner of choice for software development, delivering a broad range of web, mobile, and desktop controls as well as enterprise platforms for big data and business dashboards. Syncfusion provides a service-oriented approach throughout the entire application lifecycle, and has established itself as the trusted partner worldwide for use in mission-critical applications. Founded in 2001 and headquartered in Research Triangle Park, N.C., Syncfusion has more than 12,000 customers, including large financial institutions, Fortune 100 companies, and global IT consultancies.
www.syncfusion.com

PREMIER MEDIA PARTNERS

.NET Developers Association

The .NET Developers Association is an Eastside community oriented group aimed at furthering the education of .NET developers.
www.meetup.com/NET-Developers-Association/

UserGroup.TV

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

ALLIANCE MEDIA PARTNER

Windows Developer User Group

The Windows Developer User Group has been established to nurture knowledge base and collaboration among Windows Phone & Windows 8 application developers & enthusiasts. While we are primarily based in Columbus OH, developers from all around Ohio, neighboring states and just about anybody who has interest in the Microsoft ecosystem, is most welcome.
www.meetup.com/windowsdevug/

Please check vslive.com/redmond for the growing list of sponsors and partners for the event.

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AUGUST 14-18, 2017
MICROSOFT HEADQUARTERS

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VENUE & TRAVEL

VISUAL STUDIO LIVE! (VSLIVE!™) RETURNS TO MICROSOFT HEADQUARTERS IN REDMOND, WASHINGTON IN 2017 FOR MORE IN-DEPTH, BEHIND THE SCENES DEVELOPER TRAINING BY TECHNICAL EXPERTS AND MICROSOFT INSIDERS.

GET INSIDE THE TECHNOLOGICAL MECCA: MICROSOFT HEADQUARTERS!

Microsoft Conference Center (Building 33)

16070 N.E. 36th Way
Redmond, WA 98052
Business Center Desk: 425.703.1800

Hyatt Regency Bellevue

900 Bellevue Way N.E.
Bellevue, WA 98004

Special attendee rate: $230*

Book by: July 21, 2017

Book your room online; or call Reservations at 888.421.1442 and ask for the Visual Studio Live! Room Block. The offer is subject to room availability, so make sure to book early.

Rooms at the Hyatt Regency Bellevue in the Visual Studio Live! Room Block also includes complimentary in-room internet connectivity and complimentary access to the Hyatt Stay Fit gym and heated lap pool.

Travel

AVIS RENT-A-CAR is offering a discount on car rental for Visual Studio Live! Redmond 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 THE MICROSOFT CAMPUS
Visual Studio Live! will be providing daily complimentary shuttle transportation between the Hyatt Regency Bellevue and the Microsoft Campus. This shuttle service will be available to all attendees with a valid conference badge.

AIRPORT TRANSPORTATION
Area hotels do not provide airport transportation, but there are several options:

Shuttle Express: Reservations to SeaTac Airport are required. Book online or call 425.981.7000.
Taxi or Town Car: One way fare averages $55-$60.

Continued next page

Rooms are subject to availability and applicable state, local and occupancy taxes.

VENUE & TRAVEL (continued)

Travel (continued)

PARKING AT MICROSOFT CONFERENCE CENTER:
Complimentary parking is available in the parking garages below and adjacent to the Microsoft Conference Center (Building 33).

PARKING AT THE HYATT REGENCY BELLEVUE†
Self-parking is $25 per day for Sunday night through Thursday night stays (plus applicable taxes) Friday and Saturday night stays are complimentary (8pm Friday until 12am Sunday).

Valet Parking at the Hyatt Regency Bellevue is $31.96 per day (plus applicable taxes).

Discover Redmond and Seattle Washington

From the iconic Space Needle to the awesome Experience Music Project, you'll find plenty to do in your off-hours in the Pacific Northwest.

Can't wait to take in all the wonderful things Redmond, Bellevue, and the "Emerald City" have to offer? Find out more at www.visitseattle.org

†Parking rates are subject to change without notice.

REGISTRATION PACKAGES

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

Register now at **www.vslive.com/redmond**

Signing up 3 or more?
Group Discounts are available! See page 46 for details.
Are you a Visual Studio Live! or Live! 360 alumnus?
Alumni discounts are available! See page 47 for details

VISUAL STUDIO LIVE! 5-DAY CONFERENCE PACKAGE

Registration Sponsored By:

Syncfusion

The Visual Studio Live! Redmond 5-Day Package is your five-day all-access pass to every keynote, session, workshop and event August 14 – 18, 2017.

VISUAL STUDIO LIVE! 5-DAY PACKAGE INCLUDES:

• All Sessions and Keynotes
• Pre-and Post-conference workshops
• Reception
• Networking Events
• Lunch (August 14 – 18)
• Laptop Computer Bag
• T-shirt with Completed Survey
• Online access to all course notes and sample code

EARLY BIRD THROUGH JULY 14, 2017	STANDARD THROUGH AUGUST 14, 2017
$2,095	**$2,395**
Save $300	

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

The Visual Studio Live! Redmond 5-Day Hotel Package includes five nights at the Hyatt Regency Bellevue—*available Sunday night (August 13) through Thursday night (August 17), departing Friday (August 18).*

5-Day Hotel Package: $1,350

REGISTER NOW AT
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REGISTRATION PACKAGES (continued)

Signing up 3 or more?
Group Discounts are available! See page 46 for details.

Are you a Visual Studio Live! or Live! 360 alumnus?
Alumni discounts are available! See page 47 for details

VISUAL STUDIO LIVE! 3-DAY CONFERENCE PACKAGE

The Visual Studio Live! Redmond 3-Day Package is your three-day all-access pass to every keynote, session and event August 15 – 17, 2017.

VISUAL STUDIO LIVE! 3-DAY PACKAGE INCLUDES:

• All Sessions and Keynotes
• Reception
• Networking Events
• Lunch (August 15 – 17)
• Laptop Computer Bag
• T-shirt with Completed Survey
• Online access to all course notes and sample code

EARLY BIRD THROUGH JULY 14, 2017	STANDARD THROUGH AUGUST 14, 2017
$1,595	**$1,895**
Save $300	

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

The Visual Studio Live! Redmond 3-Day Hotel Package includes four nights at the Hyatt Regency Bellevue—*available Monday night (August 14) through Thursday night (August 17), departing Friday (August 18).*

3-Day Hotel Package: $1,100

WORKSHOP PASS (1 DAY)

The Visual Studio Live! Redmond Workshop Pass grants you access to one full-day Pre- or Post-Conference workshop on Monday, August 14 OR Friday, August 18.

STANDARD THROUGH AUGUST 14, 2017
$550

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REGISTRATION PACKAGES (continued)

Signing up 3 or more?
Group Discounts are available! See page 46 for details.

Are you a Visual Studio Live! or Live! 360 alumnus?
Alumni discounts are available! See page 47 for details

FULL DAY HANDS-ON LAB PASS

The Visual Studio Live! Redmond Hands-on Lab Pass grants you access to one full-day hands-on lab on Sunday, August 13, 2017.

EARLY BIRD THROUGH JULY 14, 2017	STANDARD THROUGH AUGUST 14, 2017
$645	**$695**
Save $50	

Interested in the Hands-on Lab and the 5-Day Conference Package? Take Advantage of the 6-Day Hotel Package!

The Visual Studio Live! Redmond 6-Day Hotel Package includes six nights at the Hyatt Regency Bellevue—*available Saturday night (August 12) through Thursday night (August 17), departing Friday (August 18).*

6-Day Hotel Package: $1,600

REGISTRATION PACKAGES (continued)

GROUP DISCOUNTS are available for companies who bring 3 or more people.

For questions or to register your group, please call 972.687.6719

VISUAL STUDIO LIVE! 5-DAY GROUP PACKAGE

The Visual Studio Live! Redmond 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 GROUP PACKAGE INCLUDES:

- All Sessions and Keynotes
- Pre- and Post-conference workshops
- Reception
- Networking Events
- Lunch (August 14 – 18)
- Laptop Computer Bag
- T-shirt with Completed Survey
- Online access to all course notes and sample code

GROUP PRICING THROUGH AUGUST 14, 2017

$1,695

Save $500 off standard pricing

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

The Visual Studio Live! Redmond 5-Day Hotel Package includes five nights at the Hyatt Regency Bellevue—*available Sunday night (August 13) through Thursday night (August 17), departing Friday (August 18).*

5-Day Hotel Package: $1,350

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REGISTRATION PACKAGES (continued)

WE LOVE OUR ALUMNI.
ENJOY THESE SPECIAL RATES TO THE EVENT.

VISUAL STUDIO LIVE! ALUMNI 5-DAY CONFERENCE PACKAGE

The Visual Studio Live! Redmond Alumni 5-Day Package is your five day all-access pass to every keynote, session, workshop and event August 14 – 18, 2017.

VISUAL STUDIO LIVE! 5-DAY ALUMNI PACKAGE INCLUDES:
- All Sessions and Keynotes
- Pre- and Post-conference workshops
- Reception
- Networking Events
- Lunch (August 14 – 18)
- Laptop Computer Bag
- T-shirt with Completed Survey
- Online access to all course notes and sample code

EARLY BIRD THROUGH JULY 14, 2017	STANDARD THROUGH AUGUST 14, 2017
$1,695	**$1,995**
Save $700 off standard pricing	Save $400 off standard pricing

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

The Visual Studio Live! Redmond 5-Day Hotel Package includes five nights at the Hyatt Regency Bellevue—*available Sunday night (August 13) through Thursday night (August 17), departing Friday (August 18)*.

5-Day Hotel Package: $1,350