**Build 2015**

**Microsoft Developer Tools**

**NEWS OVERVIEW**

On April 29, 2015, Microsoft Corp. will announce its next wave of tools and updated services for software developers. Below is a summary of news announcements shared via the live-streamed keynote at [Build 2015](http://www.buildwindows.com/).

Key announcements summary:

* Announcing Visual Studio 2015 release candidate (RC), now available for download
* Unveiling of .NET cross-platform distribution for Linux and Mac
* Announcing preview of Visual Studio Code, now available for download
* Announcing Application Insights, now in public preview

Additional details and more announcements can be found below.

**KEY ANNOUNCEMENTS**

## Announcing Visual Studio 2015 release candidate, now available for [download](http://go.microsoft.com/fwlink/?linkid=517106)

Today, April 29, 2015, Microsoft is making available the release candidate of Visual Studio 2015, marking a major milestone on the path to its general availability (GA) later this summer. Visual Studio 2015 RC delivers new capabilities to help developers achieve more and will extend that productivity and power across multiple platforms — from Windows to Linux to iOS and Android — to meet the demands of today’s diverse, mobile-first, cloud-first world.

With Visual Studio 2015 RC developers get bug fixes and new functionality that was not previously available in past preview and community technology preview releases and a go-live license, making it ready for use on production projects.

Product highlights:

* **Build for Windows.** Build the next generation of Windows apps and games for the Universal Windows Platform that run across all Windows 10 devices, including phones, tablets, PCs and Xbox as well as IoT and HoloLens.
* **Cross-platform mobile development.** Build cross-platform mobile apps that run on multiple platforms including Android, iOS and Windows. With Visual Studio 2015, developers can choose from options such as Visual Studio Tools for Apache Cordova and Visual C++ cross-platform library development or build native apps using C# with Xamarin, now including its free edition as part of Visual Studio 2015.
* **Cross-platform server development.** Developers canbuild cross-platform server applications with a choice of language and deployment platform, such as Windows or Linux servers. With Visual Studio 2015 they can use the programming language of their choice, including rich tooling support for Python, Node.js or Microsoft’s newest managed-language solution based on .NET Core 5, which supports Windows, Linux and Mac OS X. The preview of Visual Studio Tools for Docker also helps developers deploy their .NET Core applications directly to Docker containers.
* **Innovation for productivity.** Visual Studio 2015 contains many improvements to help developers be more productive and take advantage of the newest developer hardware capabilities. Visual Studio 2015 introduces a much richer debugging experience, now with integrated advanced capabilities such as performance monitoring and historical debugging in the same experience. In addition Microsoft has added many new features for managed developers through .NET Compiler Platform, such as Light Bulbs to help fix common code issues, improved refactoring tools and live code analysis that automates code fixes while typing.

The complete list of features in Visual Studio 2015 RC, including those that shipped in previous pre-release versions, can be found in the comprehensive [release notes](https://www.visualstudio.com/en-us/news/vs2015-vs).

## Unveiling a preview of .NET cross-platform distribution for Linux and Mac

In November, Microsoft announced that the next release of .NET will ring in a new era of development by enabling developers to build .NET cloud applications on multiple platforms. At Build 2015, Microsoft is delivering the next milestone in its .NET 2015 vision, the availability of both the full .NET Framework 4.6 RC and the .NET Core 5 beta 4, as well as a preview of the .NET Core runtime distribution for Linux and Mac OS X, implemented and supported by Microsoft and developed as open source, in close collaboration with the developer community.

Developers can now install the .NET Core support for Linux and Mac OS X, start an evaluation of this early preview, and get involved in the associated open source project, overseen by the .NET Foundation.

Today Microsoft is also making available ASP.NET 5 (beta 4) and Entity Framework 7 (beta 4) releases for Visual Studio developers. Both frameworks have been designed from top to bottom to be ready for cloud deployments by reducing memory footprint and increasing throughput. Both are also open source and cross platform and able to run on the traditional .NET Framework 4.6 and the new cloud-optimized .NET Core 5.

More information can be found at <http://aka.ms/netcore>.

## Announcing preview of Visual Studio Code — preview, now available for download

Microsoft today unveiled Visual Studio Code, a free cross-platform code editor for building modern Web and cloud applications. It extends the Visual Studio family by offering a lightweight code editor that runs on Mac OSX, Linux and Windows.

Visual Studio Code redefines code editing, providing a streamlined and fast coding experience with rich code assistance and navigation for multiple languages, with an enhanced set of features for developers building JavaScript, TypeScript, Node.js and ASP.NET 5 applications.

The Visual Studio Code preview is available for developers to [download](http://go.microsoft.com/fwlink/?LinkID=533688) today.

**DEVOPS IN VISUAL STUDIO ONLINE AND AZURE**

Microsoft continues to invest in technologies and services to help organizations embrace a DevOps culture. Through DevOps practices, organizations can deliver value to customers faster than before and gain insights into the health and usage of those applications.

## Announcing Application Insights — now in public preview

Microsoft is announcing thatVisual Studio Application Insightshas reached the public preview milestone with new capabilities that complement existing support for cloud- and Windows-based apps by integrating [HockeyApp’s](http://hockeyapp.net/features/) cross-platform capabilities to deliver crash analytics for iOS- and Android-based apps. Application Insights is available today for customers to use on the [Azure portal](http://azure.microsoft.com/en-us/services/application-insights/).

## Continued investments in Visual Studio Online

Microsoft is announcing a new extensibility model for Visual Studio Online, building on its existing REST API support and adding support for Web extensibility. The company is also demonstrating two new capabilities for developers that will be made available at a later time: the Release Management Service and the next-generation Build service that help developers deliver more quickly and reliably from continuous integration to continuous delivery, entirely from a Web interface.

* **New Visual Studio Online extensibility model.** Microsoft is introducing a new extensibility model for Visual Studio Online that enables partners and developers to extend the Visual Studio Online Web access interface with new capabilities that can be integrated directly into the user experience.
* **Release Management Service (preview).** Microsoft is unveiling the next set of major improvements in the Release Management Service of Visual Studio Online, coming in preview this summer. Updates to Release Management will include a Web interface and integration with the new next-generation Visual Studio Online Build system. The Release Management Service also can pick up apps for other build systems such as Jenkins and will deploy through Chef, Docker or Azure resource groups, as well as to on-premises servers from Visual Studio Online.
* **Build vNext (preview).** Microsoft is demonstrating a preview of vNext of the Visual Studio Online Build service, which will be available to all users in the coming weeks. The next-generation build system will enable teams to more easily create custom-build workflows by introducing reusable tasks and leverages a lightweight, Web-based authoring environment. This build system will also be capable of building code from external systems such as GitHub by leveraging the REST APIs and service hooks infrastructure available in Visual Studio Online. As well, a new cross-platform build agent will allow teams to run builds on non-Windows machines. This makes it possible, for the first time, to build on Linux machines and for iOS/OSX by running builds on Macs.

Team Foundation Server 2015 release candidate, now available for [download](http://go.microsoft.com/fwlink/?linkid=517106)

Today, April 29, 2015, Microsoft is announcing the upcoming availability of Team Foundation Server 2015 RC, marking a major milestone on the path to its GA later this summer.

Team Foundation Server 2015 RC gives on-premises customers many of the same innovations that are being continuously delivered in Visual Studio Online for agile team collaboration and DevOps, such as the new agile planning and Kanban enhancements and the next-generation build system that builds any application on Windows, Linux or Mac.

Product highlights:

* **Agile planning improvements.** Taskboards will show bugs regardless of process template. Updated Kanban features include inline editing right on the board, reordering of items, and the ability to specify a definition of done for each of the columns.
* **Quick code editing.** Users will directly edit code files using their Web browser, through the Web access interface. Changes to files will be committed back to the source code repository without the need for additional tools.
* **Server extensibility.** REST APIs will be available, enabling customers and the community to develop custom solutions, making it possible to extend and integrate Team Foundation Server into almost any scenario. In addition, service hooks are also provided, making it easy to integrate with external services such as Trello or Campfire, or to build an app experience that is instantly notified when events are triggered, such as completed builds, commits/check-ins or work item changes.
* **Expanded Basic license.** Users with a Basic license to Team Foundation Server will have access to Web-based test execution, Team Rooms, work item chart authoring, and Agile portfolio planning tools.
* **Build vNext (preview).** Preview release of the new build automation system in Team Foundation Server will enable developers to define builds in a Web browser, reuse a rich gallery of reusable and extensible build tasks, have support for Ant, Maven and Gradle out of the box, and run their build agent on Windows, Linux or Mac.
* **SonarQube.** SonarQube is the de facto open source software solution for controlling technical debt. Builds in Team Foundation Server and Visual Studio Online will send code analysis and coverage data to SonarQube for deep analysis and problem prioritization.

Above are just some of the new features in Team Foundation Server 2015. The complete list of features can be found in the comprehensive [release notes](https://www.visualstudio.com/en-us/news/tfs2015-vs).

**ADDITIONAL ANNOUNCEMENTS**

* **Visual Studio 2013 Update 5 (RC).** Announcing the latest in a cumulative series of technology improvements and bug fixes for Visual Studio 2013 and Team Foundation Server 2013. In this release Microsoft has fixed numerous bugs and known issues for both products and added two additional features to Team Foundation Server 2013. The full details and download instructions can be found in the [release notes](https://www.visualstudio.com/news/vs2013-update5-vs).
* **Python Tools for Visual Studio 2.2 (RC).** Python Tools for Visual Studio is an official Microsoft open-sourced extension that enables first-class Visual Studio tooling support for Python projects. Today Microsoft released an update to Python 2.2 beta that adds support for Visual Studio 2015 RC. More details and the extension download can be found [here](https://www.visualstudio.com/explore/python-vs).
* **Azure SDK 2.6 (RTM).** Azure SDK 2.6 continues to build on innovations in previous releases, including improvements to diagnostic capabilities and updated tooling for API apps released in SDK 2.5.1. In addition Microsoft has added new features to tooling for HDInsight, Service Bus and Azure Resource Manager. Full details can be found in [this blog post](https://microsoft.sharepoint.com/teams/DevTools_Communications_Team_Site/Shared%20Documents/2015/Events/BUILD%202015/Briefing%20Book/link%20tbd).
* **Visual Studio 2015 RC Tools for Docker (preview).** This new Visual Studio extension enables developers to publish ASP.NET 5 Web and console applications to a Linux virtual machine hosting the Docker engine.
* **Azure Cloud Code Analysis Pack (beta).** This NuGet package uses the code analysis capabilities of the .NET Compiler Platform in Visual Studio 2015 RC to identify coding patterns that cause performance, scalability or security problems with Azure applications. By adding the Azure Cloud Code Analysis NuGet package to a project, developers can detect code issues in real time as the code is being written in the editor. Some code analysis rules also suggest automatic fixes to code.
* **Office developer tools for Visual Studio 2013 (RTM).** This release updates the Office developer tools in Visual Studio 2013 with new capabilities such as support for Service Bus SAS connection string for remote event debugging and improved SharePoint version re-targeting.

**RESOURCES**

The following resources will be available April 29, starting at 11 a.m. PDT.

* [Release notes](https://www.visualstudio.com/en-us/news/vs2015-vs)
* [http://www.visualstudio.com](http://www.visualstudio.com/)
* [Connect(“on-demand”);](http://channel9.msdn.com/Series/ConnectOn-Demand/) — a collection of short videos covering many of the newly announced features
* [Docker for .NET Developers](http://channel9.msdn.com/Series/Docker-for-NET-Developers) — a new Connect(“Learn”); training series for getting .NET developers started with Docker for their ASP.NET 5 applications

**KEY ANNOUNCEMENTS – BUILD DAY 2 (April 30, 2015)**

**Announcing advanced integration with Microsoft and GitHub**

**GitHub Enterprise on Azure**

Today, Microsoft and GitHub announced that companies will be able to quickly create and host instances of GitHub Enterprise on Microsoft Azure. Millions of developers already use GitHub to collaborate, build and deploy enterprise-grade software, and by running GitHub Enterprise on Azure, customers, agencies and software vendors can now take advantage of the scale, speed and economics of the cloud designed for modern business. It is available for download [here](http://enterprise.github.com/azure).

**Visual Studio Tools for GitHub**

Today, Microsoft and GitHub announced an extension for Visual Studio 2015 that will give developers a simplified path to hosting their projects via a public or private repository on GitHub. Shipping with Visual Studio 2015, the extension will give Visual Studio developers a drop-down menu option for opening a GitHub repository from within Visual Studio. GitHub’s repository interface will also include a one-click option for developers to open up their project with Visual Studio. It is available from the Visual Studio Gallery [here](https://visualstudiogallery.msdn.microsoft.com/75be44fb-0794-4391-8865-c3279527e97d).

**Integrating GitHub with Bing Developer Assistant**

Bing Developer Assistant, an extension for Visual Studio, combines the power of Bing and the Visual Studio IDE to give personalized and contextual help for finding code samples and projects. Bing has worked with GitHub, the largest code host in the world, to index millions of code samples residing in GitHub and provide just-in-time assistance for developers targeting .NET APIs and popular open source languages and frameworks. The Bing Developer Assistant can be downloaded [here](https://visualstudiogallery.msdn.microsoft.com/a1166718-a2d9-4a48-a5fd-504ff4ad1b65).

**Announcing the Visual Studio add-in for “Minecraft” mod developers, available for download today**

Earlier today at BUILD, Microsoft announced the public availability of a new open source project meant to simplify the development of “Minecraft” mods within Visual Studio. This Visual Studio add-in can be downloaded from the Visual Studio Gallery today: <http://aka.ms/vsminecraft>. It supports both Visual Studio 2013 Update 4 and Visual Studio 2015 RC. Developers can explore the source code and learn more about how the project works on GitHub: <http://aka.ms/vsminecraftsrc>.

**ADDITIONAL ANNOUNCEMENTS**

* **TypeScript 1.5 (beta).** TypeScript 1.5 has been through several iterations; as part of this release Microsoft is sharing part of the work completed with the AngularJS team to improve integration with dynamic libraries, richer EcmaScript 6 support, and other language improvements such as for-of support for better iteration and Unicode support. Microsoft is also announcing a growing tooling ecosystem with a new added plug-in for Sublime Text and the enhanced experience for TypeScript in Visual Studio Code.