Raspberry Pi Development with Visual C++ for Linux

Xiao Ling / April 11, 2016 / RaspberryPi / linux, Raspberry Pi, visual studio   0 Comments
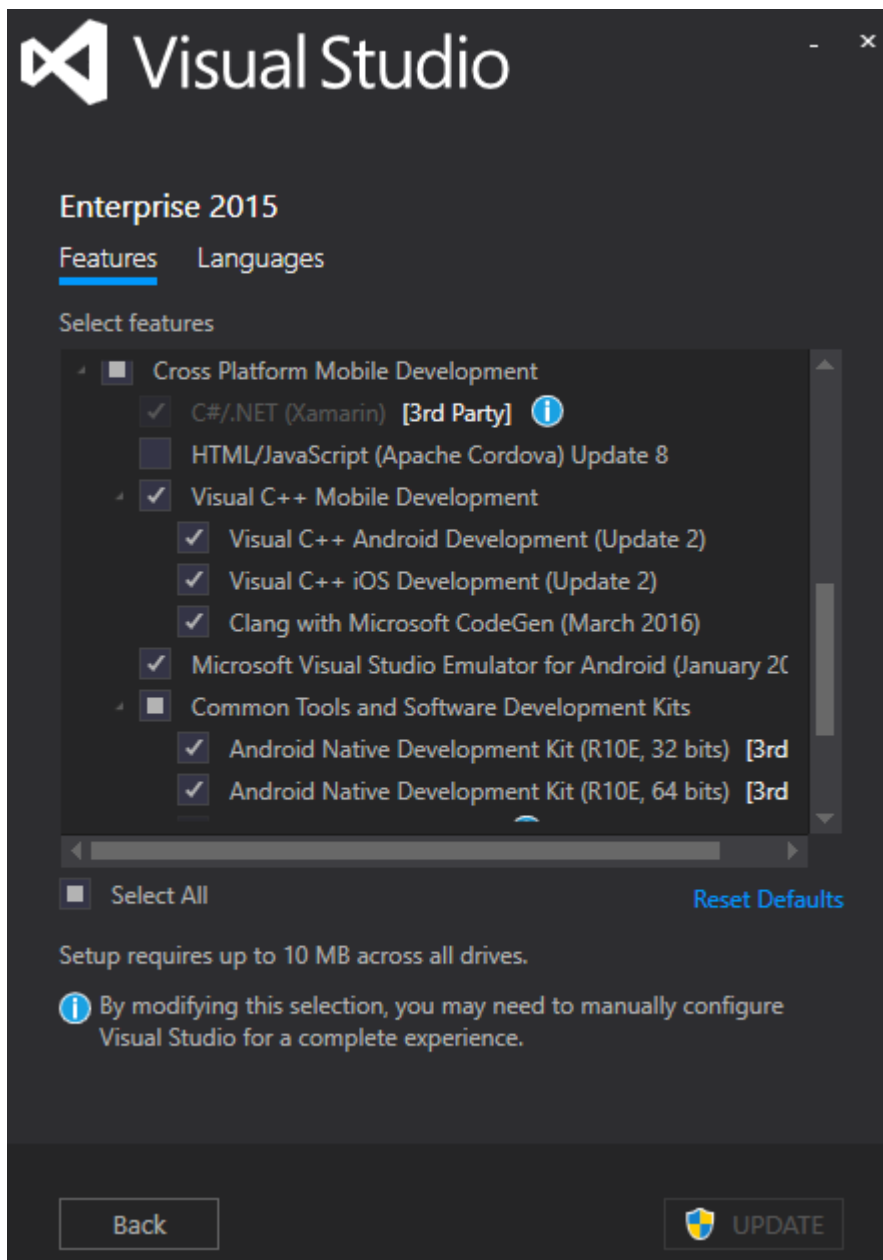
During Build 2016, Microsoft released a Visual Studio C++ extension for Linux. With the extension, you can use Visual Studio to write C++ code for Linux devices. In this post, let's take a glimpse of how to install the extension and how to remotely build and debug C/C++ code for Raspberry Pi.

Getting Started
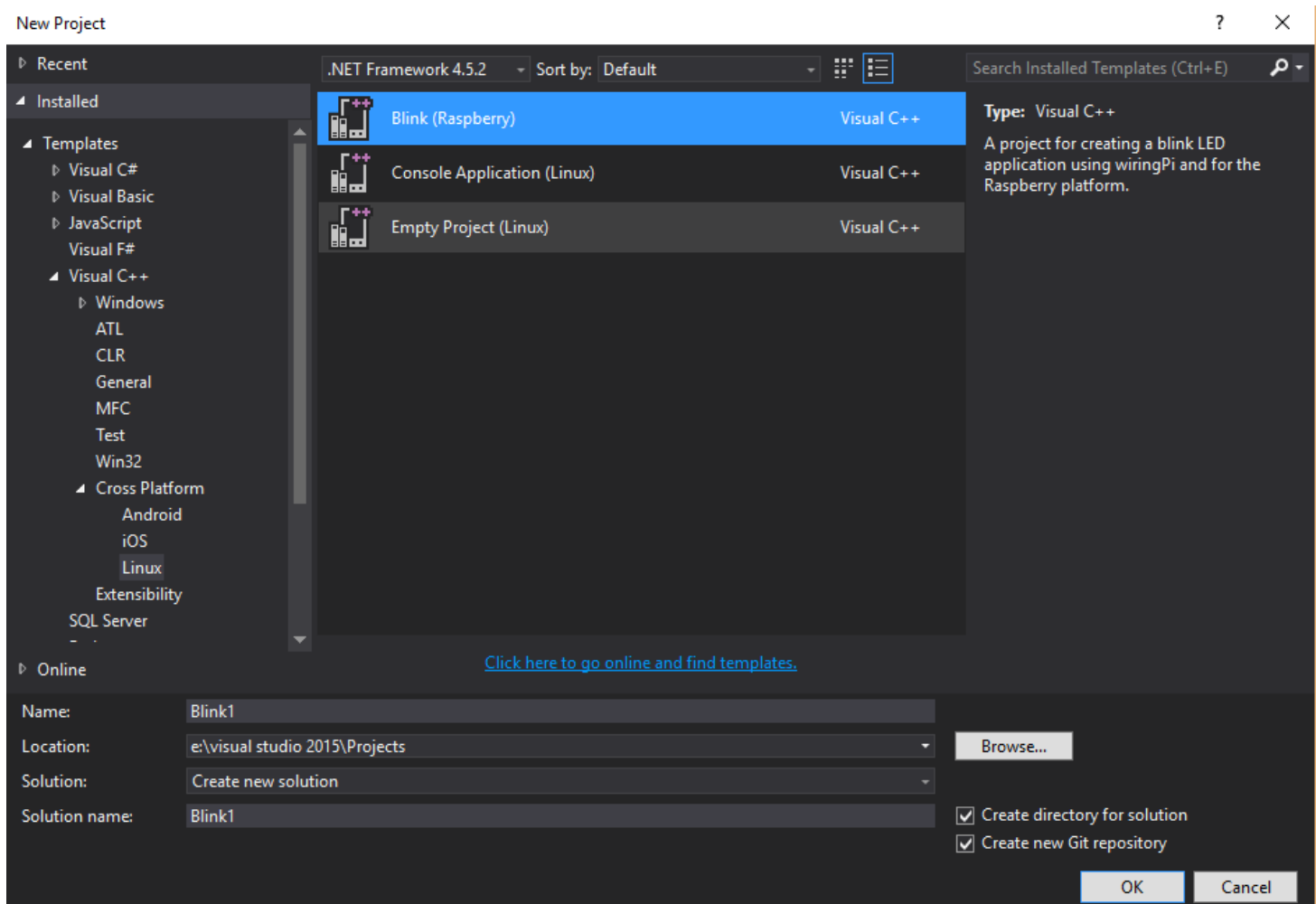
Install Visual Studio extension for Linux development

Download Visual C++ for Linux.

It will fail to install the extension if you do not have **Cross Platform Mobile Development** tools installed:

Create a Linux project for Raspberry Pi

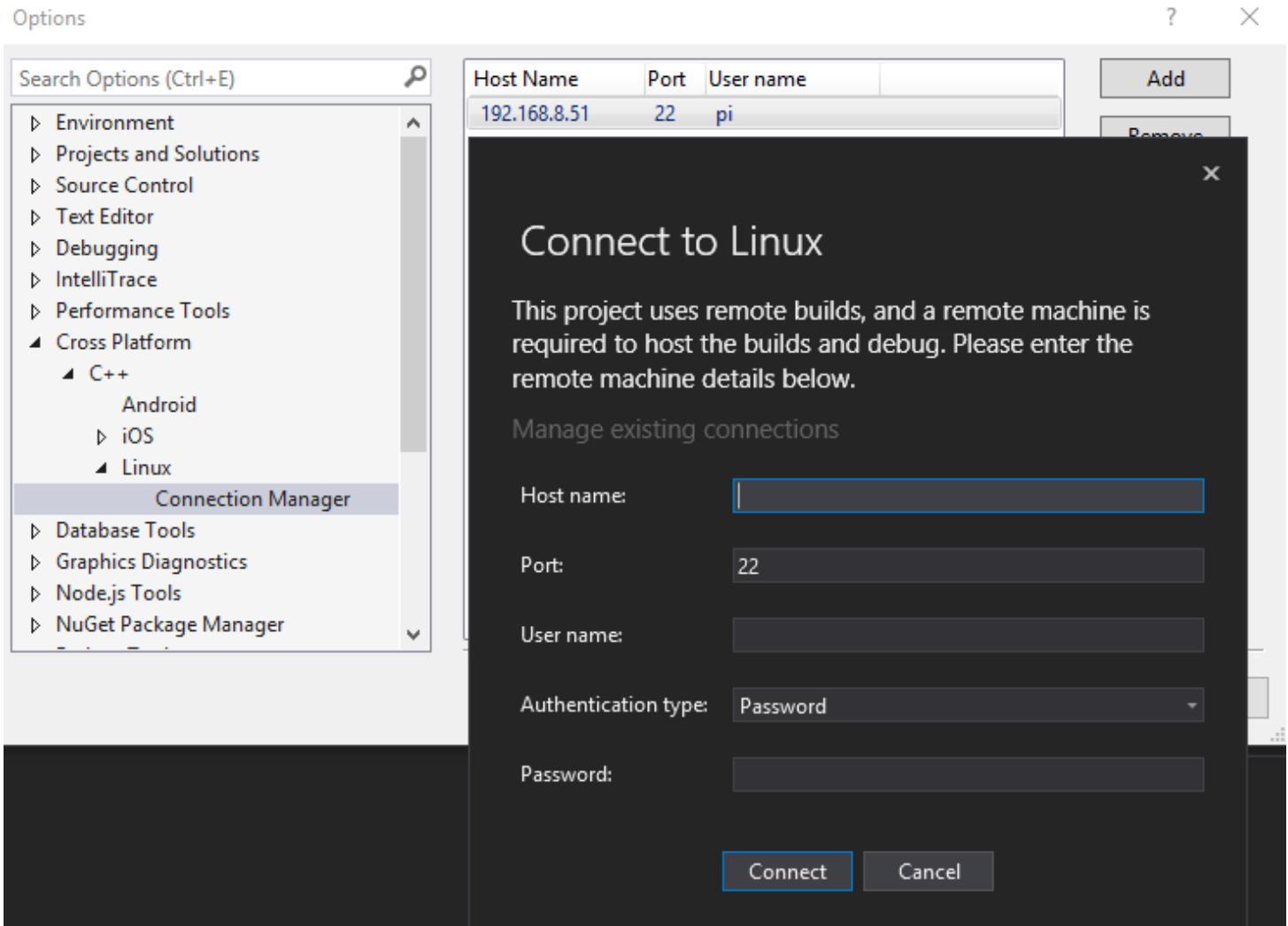Open Visual Studio 2015. Click **File > New > Project > Installed > Templates > Visual C++ > Cross Platform > Linux** to create a new project for Raspberry Pi:

If you just want to create a simple console project, choose **Console Application (Linux)**.

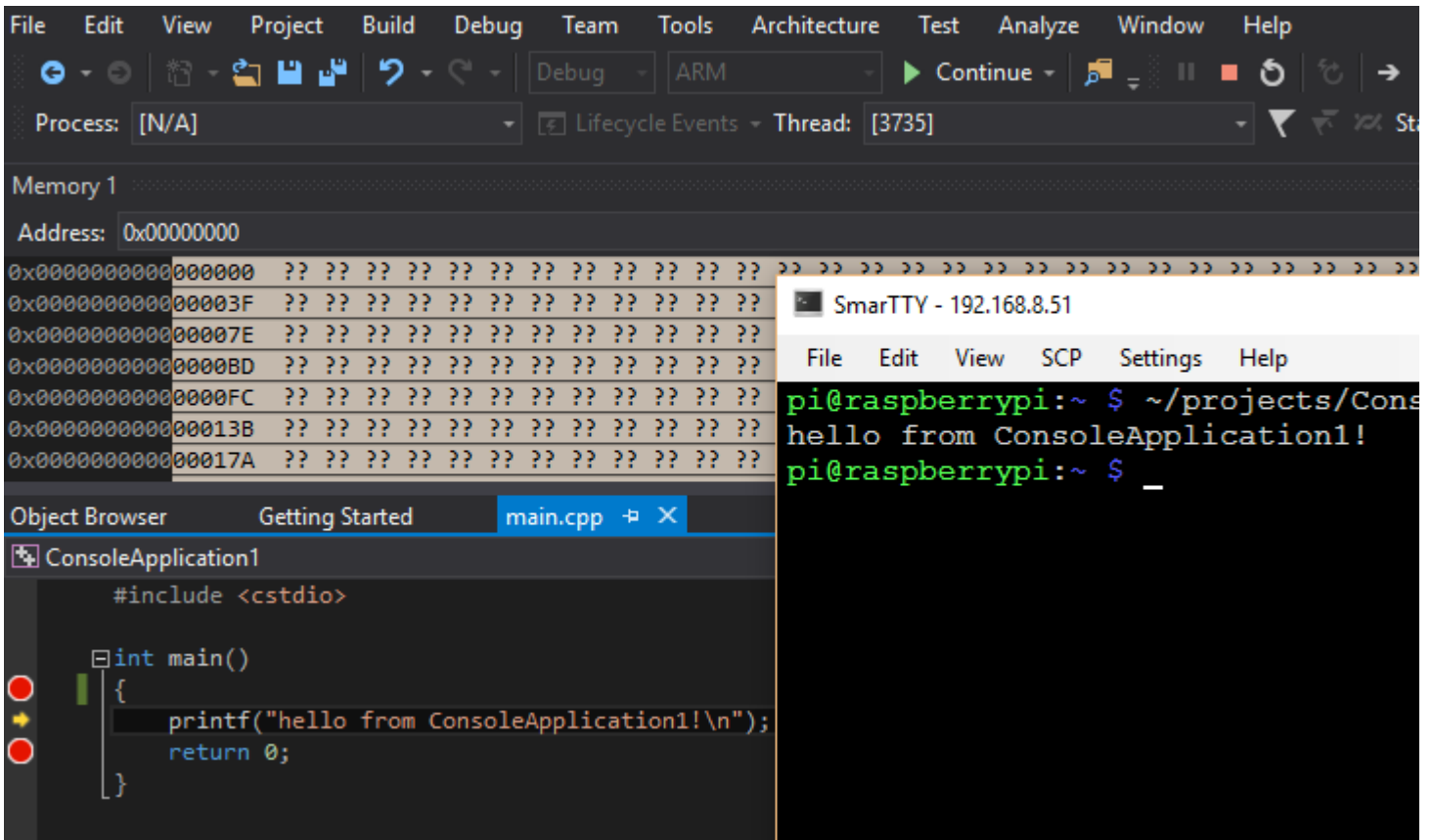Open **Configuration Manager**, and then change platform to **ARM**.

Click menu **Tools > Options > Cross Platform > Linux** to create a new connection:
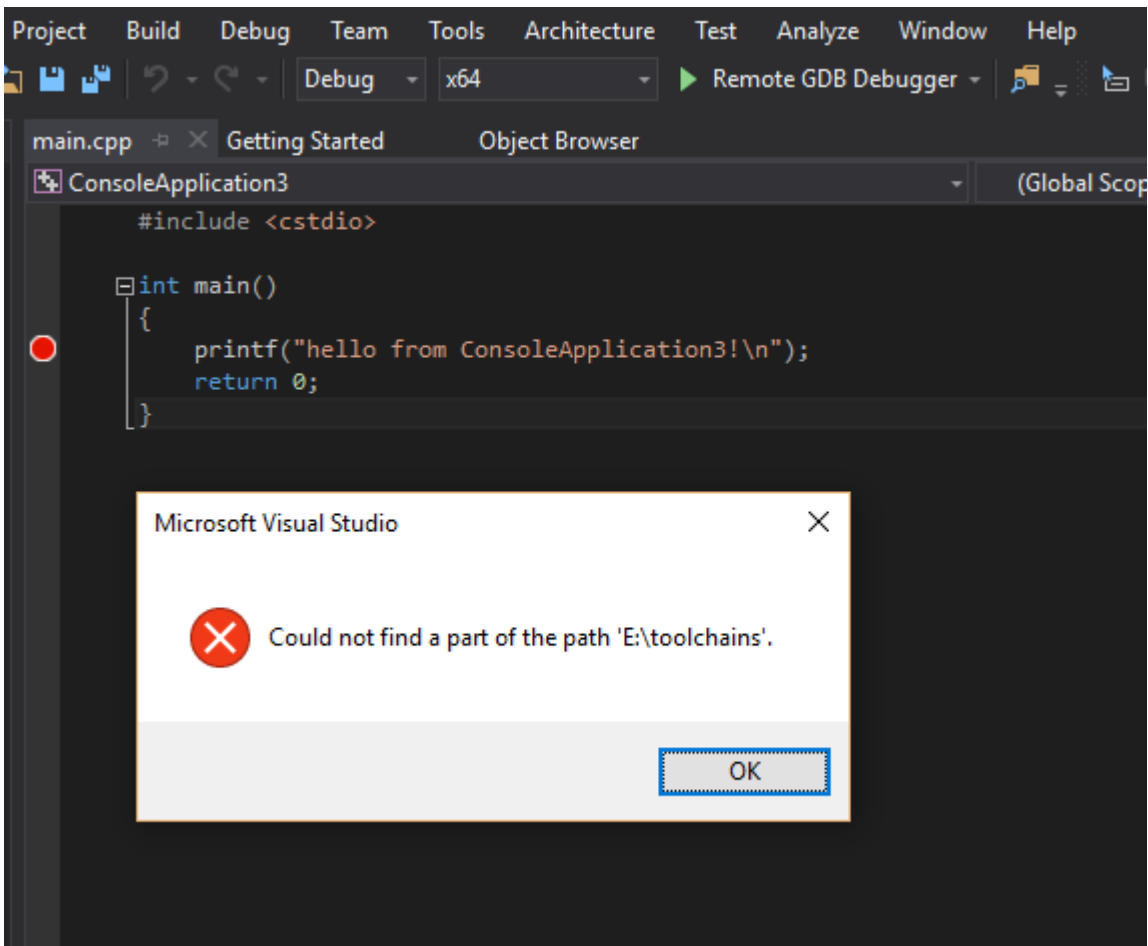
Options   ?   ✕

Search Options (Ctrl+E) | Host Name | Port | User name
▷ Environment | 192.168.8.51 | 22 | pi
▷ Projects and Solutions
▷ Source Control
▷ Text Editor   ✕
▷ Debugging
▷ IntelliTrace   Connect to Linux
▷ Performance Tools
▲ Cross Platform   This project uses remote builds, and a remote machine is
   ▲ C++   required to host the builds and debug. Please enter the
        Android   remote machine details below.
     ▷ iOS   Manage existing connections
     ▲ Linux
           Connection Manager   Host name: [   ]
▷ Database Tools
▷ Graphics Diagnostics   Port: [22   ]
▷ Node.js Tools
▷ NuGet Package Manager   User name: [   ]

                                           Authentication type: [Password   ▾]

                                           Password: [   ]

                                                    [Connect]   [Cancel]

Make sure you have installed following packages on Raspberry Pi:

```
1 | sudo apt-get install openssh-server g++ gdb gdbserv
```

Build and debug your code:

What if you see the error message "Could not find a part of the path"?

Update your Visual Studio 2015 to the latest version and restart it:

About Microsoft Visual Studio   ?   ✕

Visual Studio

License status
License terms

Microsoft Visual Studio Enterprise 2015   Microsoft .NET Framework
Version 14.0.25123.00 Update 2   Version 4.6.01038
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Installed products:

Architecture and Modeling Tools 00325-70002-43136-AA343	Copy Info
Visual Basic 2015 00325-70002-43136-AA343	System Info
Visual C# 2015 00325-70002-43136-AA343	DxDiag
Visual C++ 2015 00325-70002-43136-AA343	
Windows Phone SDK 8.0 - ENU 00325-70002-43136-AA343	
Application Insights Tools for Visual Studio Package 5.2.60328.3	
ASP.NET and Web Tools 2015.1 (Beta8) 14.1.11106.0	
ASP.NET Web Frameworks and Tools 2012.2 4.1.41102.0	
ASP.NET Web Frameworks and Tools 2013 5.2.40314.0	
Clang with Microsoft CodeGen 14.0.25115	

Product details:

Microsoft Architecture and Modeling Tools

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Group, Inc. in the United States and other countries.

OK

When using Visual C++ for Linux, I got some weird issues occasionally. Hopefully, Microsoft will fix
bugs and release updates as soon as possible.