

OPENSIFT 2.X VISUAL STUDIO TOOL USER GUIDE



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Click2Cloud Inc.
OpenShift Visual Studio Plugin Guide V 2.5

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1. PREREQUISITE TO RUN VISUAL STUDIO PLUGIN

You can interact with OpenShift with either the Management Console or the client tools. The Management Console is best for easily launching, managing, and monitoring your applications using a graphical interface. The OpenShift client tools lets you manage your cloud environment using a command line interface, and provide more features that are not currently accessible from the Management Console. The client tools are best for coding, debugging, and advanced application management.

2. INSTALLING CLIENT TOOLS

The OpenShift Client Tools make it easy to create and deploy applications, manage domains, control access to OpenShift applications, and provide complete control over your cloud environment.

Prerequisites

You must have sufficient privileges to install software on your computer. Depending on specific user permissions, disabling the User Account Control (UAC) on Windows Vista or Windows 7 operating systems may be necessary.

Installing Required Software

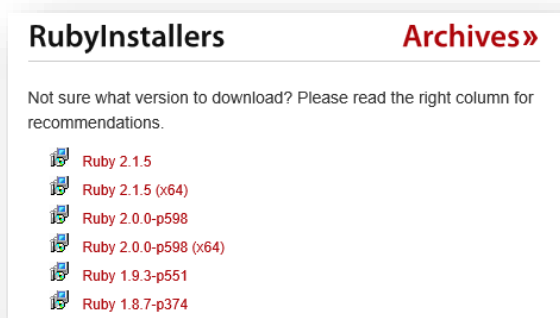
Before you can install OpenShift client tools on Windows operating systems, you must download and install the following software:

1. **Ruby** with RubyInstaller
2. **Git** version control
3. **rhc** Ruby gem

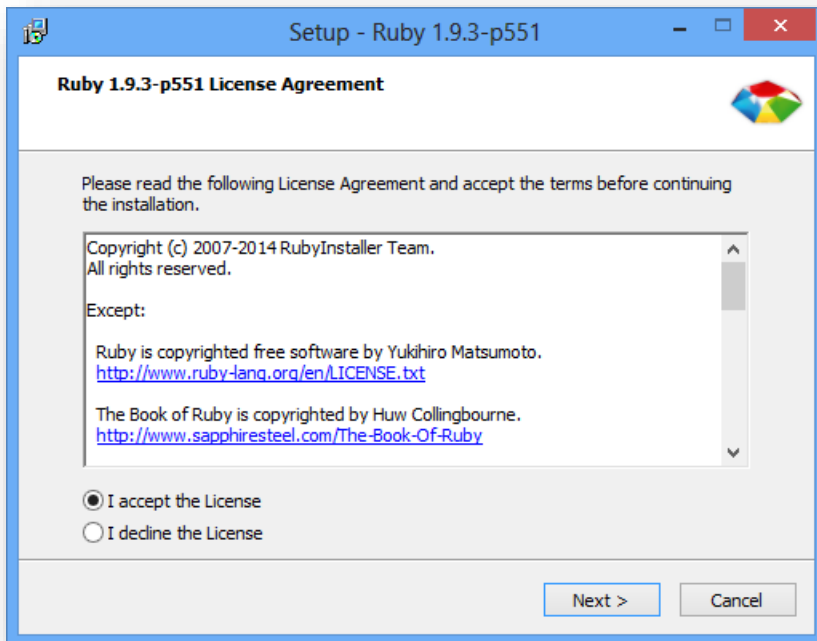
2.1 INSTALL RUBY WITH RUBYINSTALLER

Follow the instructions below to install RubyInstaller for Windows.

1. From rubyinstaller.org, download and save the latest RubyInstaller package for Windows to your desired directory and launch the installer.

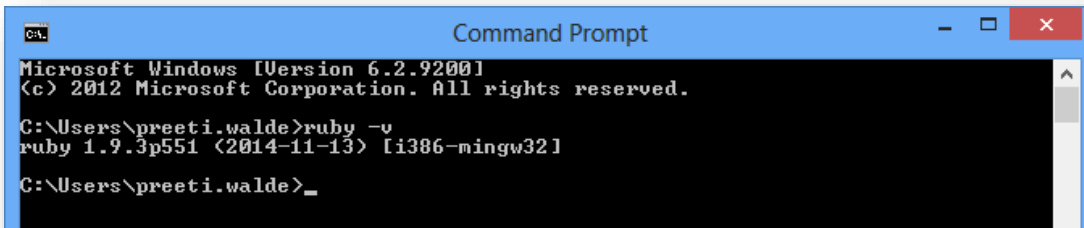


2. Double-click the executable RubyInstaller file you downloaded to launch the installation wizard. Accept the Ruby



License Agreement and click **Next**.

3. During the installation you can check all of the defaults, but it is mandatory that you select the **Add Ruby executables to your PATH** check box in order to run Ruby from the command line, and click **Install** to begin the installation.
4. Click **Finish** when the installation completes.



```
Microsoft Windows [Version 6.2.9200]
(c) 2012 Microsoft Corporation. All rights reserved.

C:\Users\preeti.walde>ruby -v
ruby 1.9.3p551 (2014-11-13) [i386-mingw32]

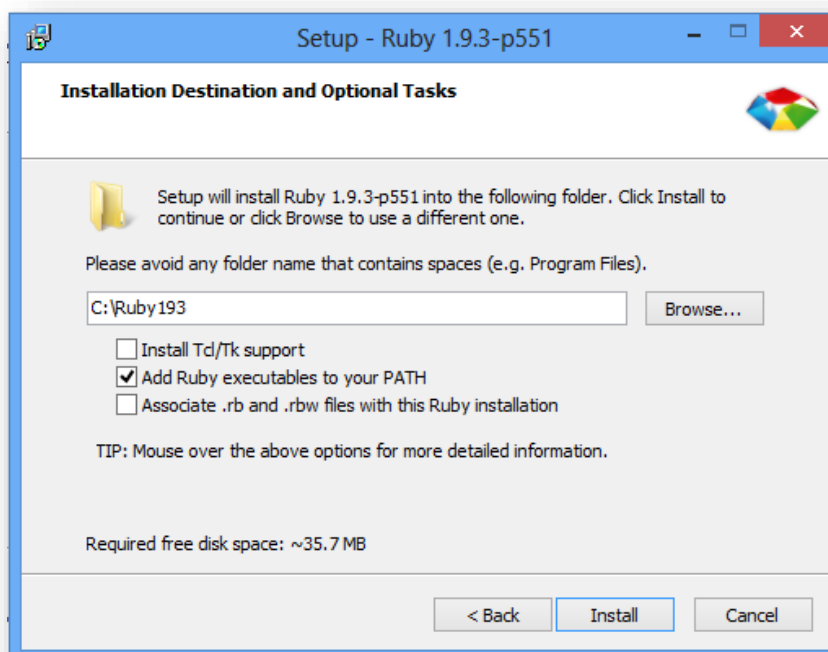
C:\Users\preeti.walde>
```

5. To verify that the installation is working, you can open a Command Prompt and run:

C:\> ruby -v

6. You will get your installed Ruby version:

ruby 1.9.3p551 <2014-11-13> [i386-mingw32]



If the Ruby version message does not display, the Ruby executable may not have been added to the path. Restart the installation process and ensure the **Add Ruby executables to your PATH** check box is selected.

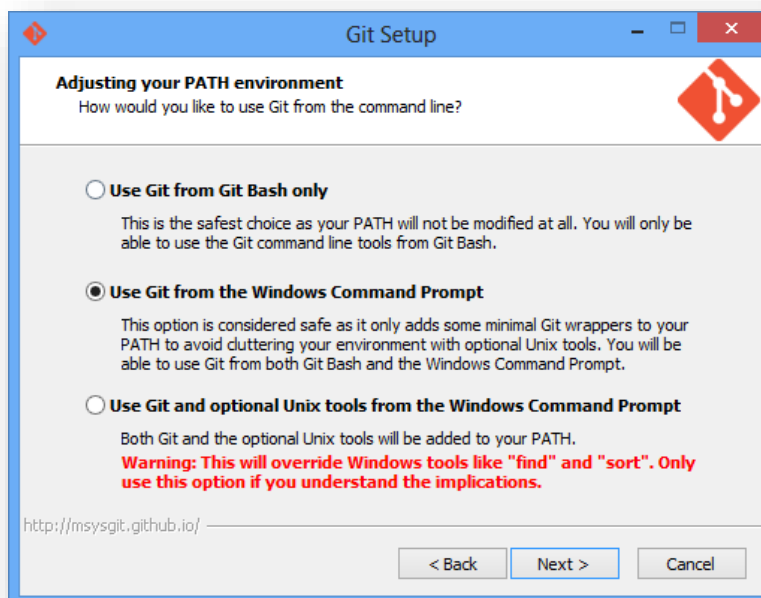
2.2 Install **Git** version control

After you have installed RubyInstaller, use the following process to install Git version control for Windows.

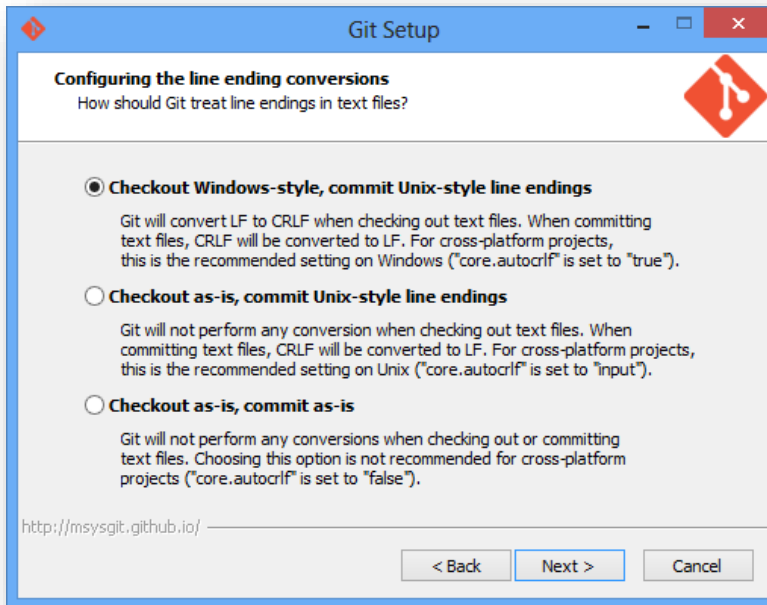
1. From <http://msysgit.github.com/>, download and save the latest version of Git for Windows to your desired directory.
2. Double-click the executable Git file you downloaded to launch the Git installation wizard. Click **Next** until you are asked to adjust your PATH environment.



3. Select the Use Git from the Windows Command Prompt check box and click Next. This enables you to use the default Windows command prompt for Git and SSH operations.

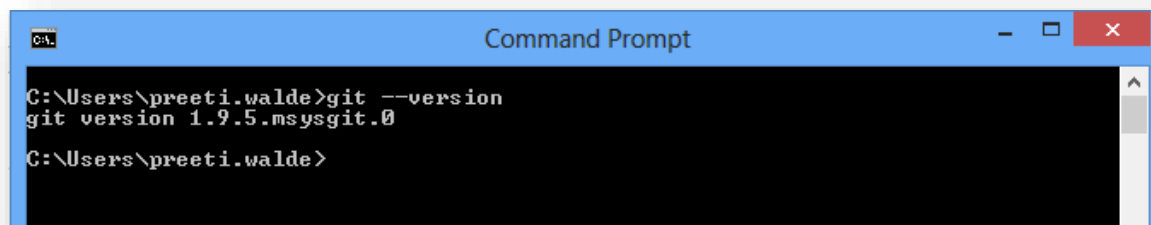


4. Select the **Checkout Windows-style, commit Unix-style line endings** check box and click **Next**.



5. Click **Finish** when the install completes.
6. To verify that Git is correctly configured run:
C:\> git --version
7. If Git was installed correctly, you should see the installed version number:

git version 1.9.5.msysgit.0

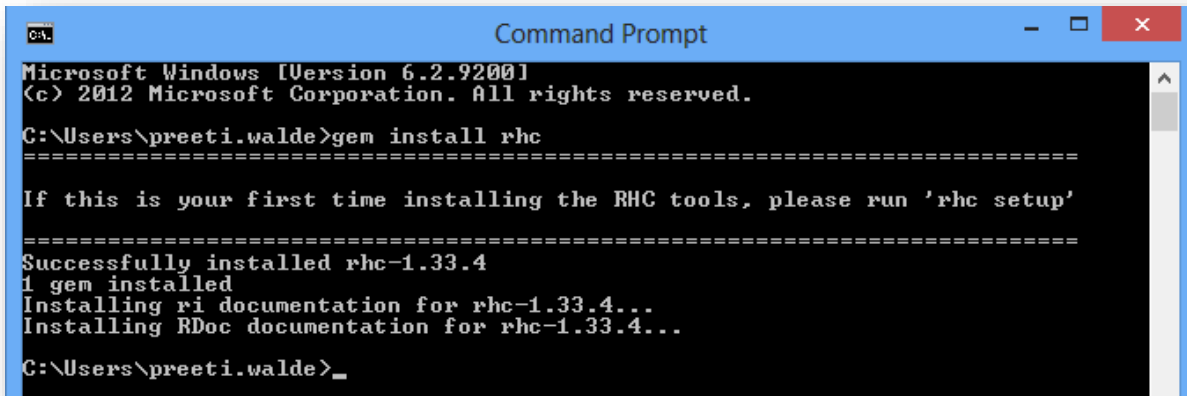


2.3 Install the **rhc** Ruby gem

After you have installed **RubyInstaller** and **Git**, use the following instructions to install the client tools.

1. Open Windows Command Prompt.
2. Run the following command to install the client tools:

C:\> *gem install rhc*



```
Microsoft Windows [Version 6.2.9200]
(c) 2012 Microsoft Corporation. All rights reserved.

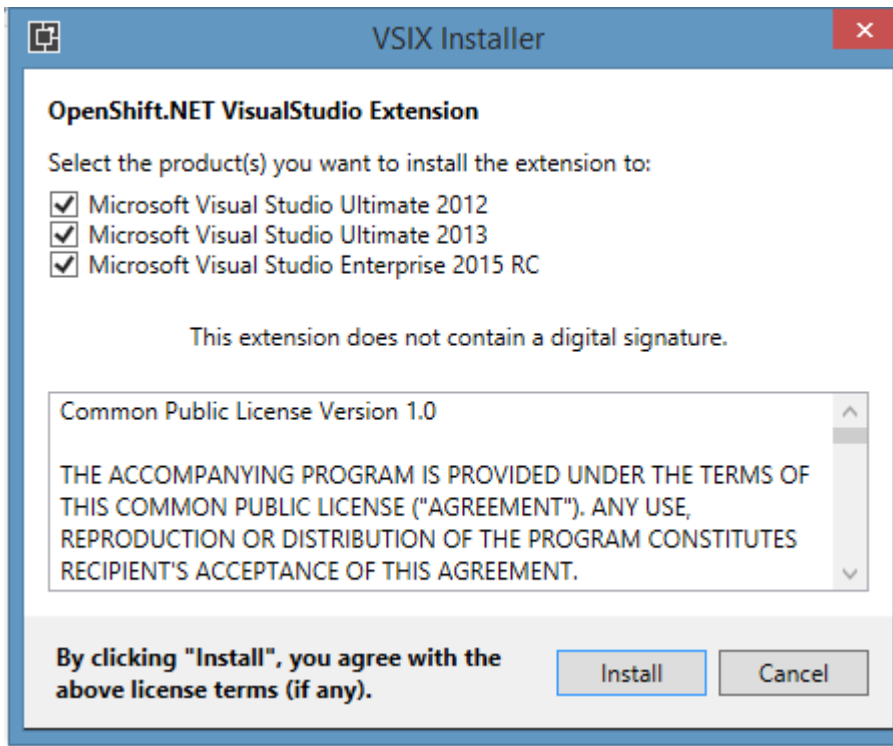
C:\Users\preeti.walde>gem install rhc
=====
If this is your first time installing the RHC tools, please run 'rhc setup'
=====
Successfully installed rhc-1.33.4
1 gem installed
Installing ri documentation for rhc-1.33.4...
Installing RDoc documentation for rhc-1.33.4...
C:\Users\preeti.walde>
```

3. OPENSIFT .NET VISUAL STUDIO PLUGIN

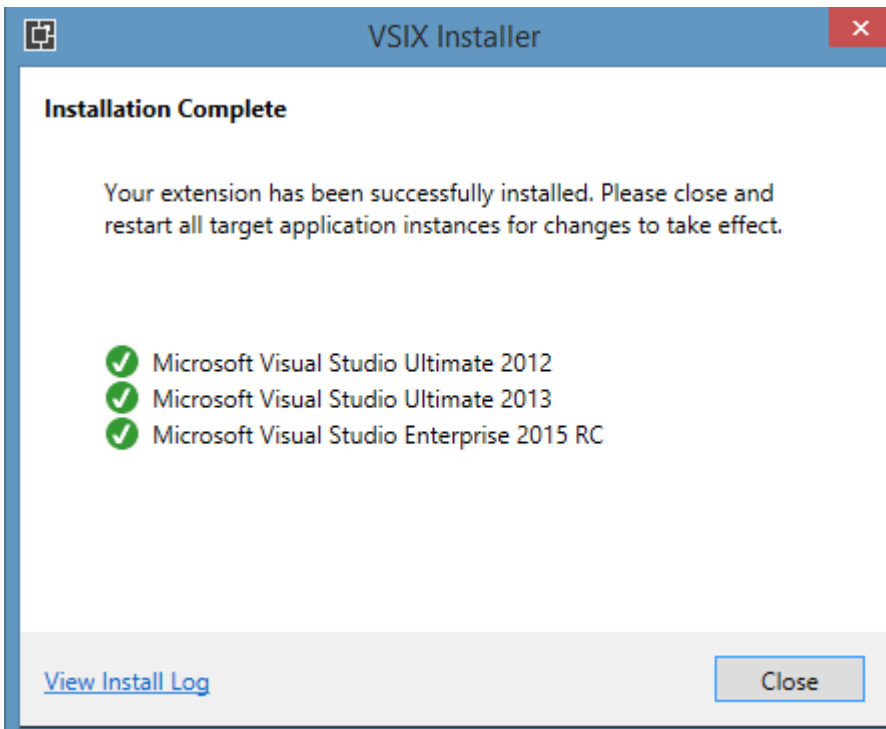
Install Visual Studio Plugin

Use the **PluginSetup** installer, provided in Partner Kit, to launch the installation wizard.

1. Click **Install** to install plugin for selected Visual Studio versions in case you have multiple.



2. Click Close when the install completes.

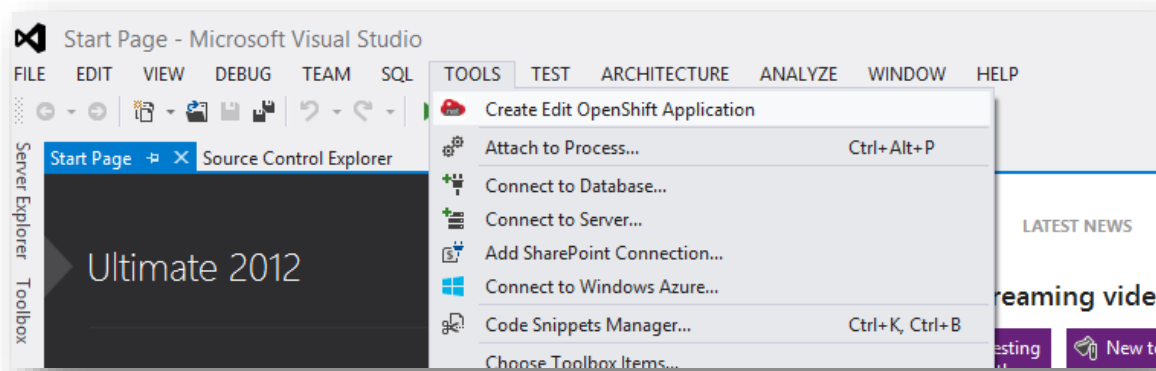


Create/Import OpenShift Application

This tool provides the easy way to create, run web application in OpenShift environment or import existing application. It provides freedom to developer to choose any embedded database cartridge for creating web application using dot net cartridge. Developer can also create domain as per their requirement and can use any gear size.

Use the following steps to create the application into OpenShift or import existing application to change

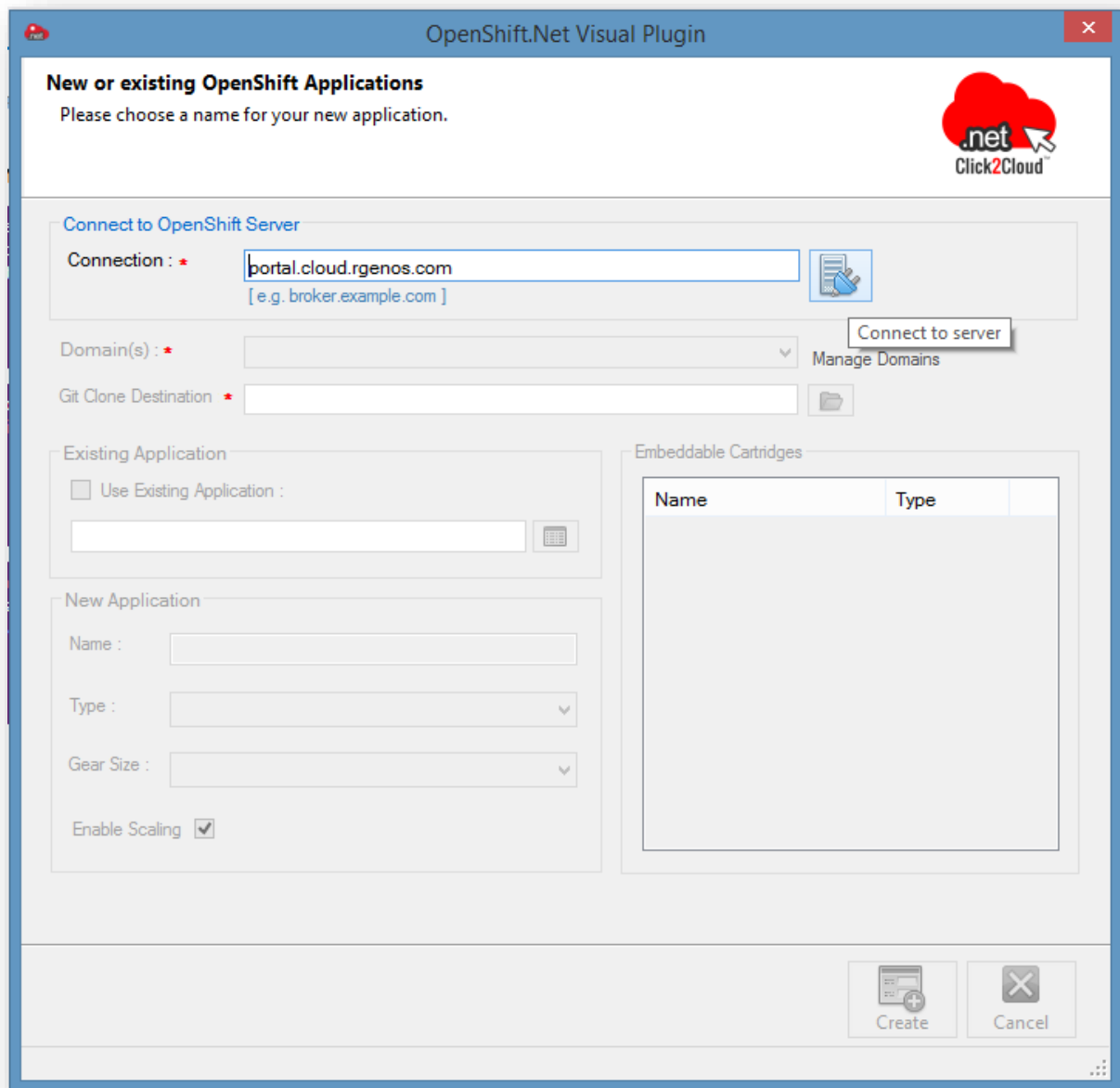
1. Open **Visual Studio** instance, select **TOOLS** from menu bar and then select **Create Edit OpenShift Application** as specified in below screen –



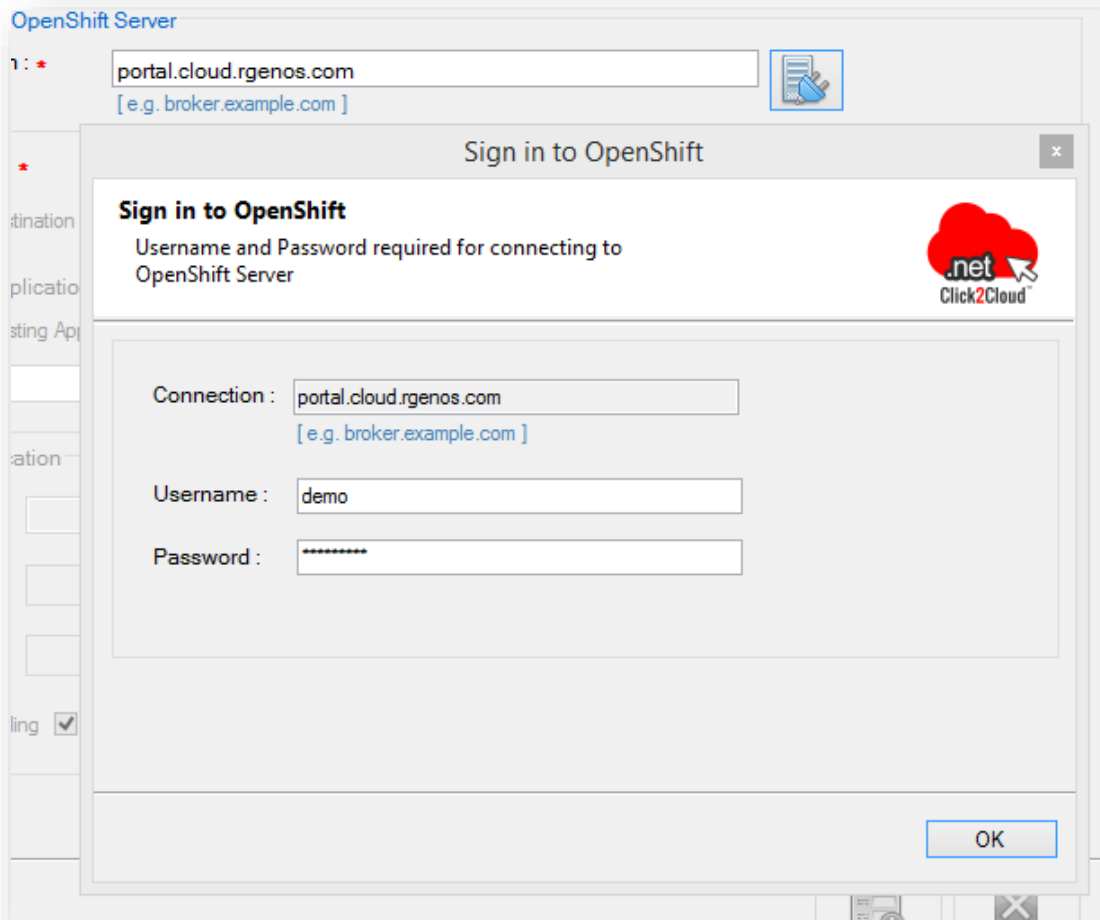
2. **Trial License** dialog will display details about how many days are remaining for the license to expire. Then click on **OK** button.



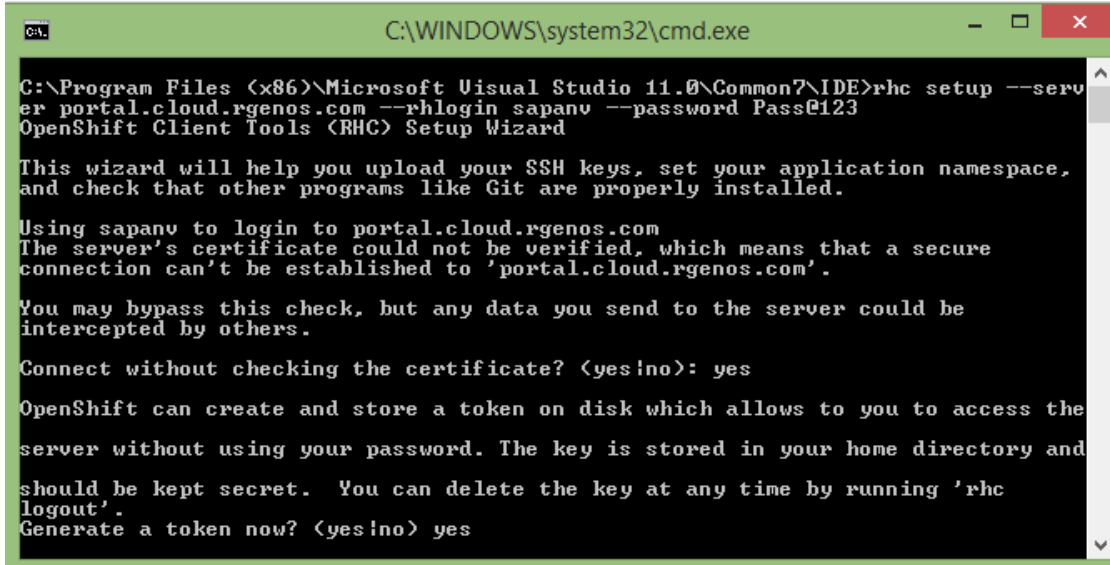
3. On the **OpenShift.NET Visual Studio Plugin** window, enter OpenShift server **hostname** and click on **Connect to Server** button.



4. On **Sign in to OpenShift** window, enter **Username** and **Password** and click **OK**.



5. A **Command Prompt** window will appear while connecting for the first time, where when asked about **token generation**, enter **yes**.



```
C:\WINDOWS\system32\cmd.exe

C:\Program Files (x86)\Microsoft Visual Studio 11.0\Common7\IDE>rhc setup --server portal.cloud.rgenos.com --rhlogin sapanv --password Pass@123
OpenShift Client Tools (RHC) Setup Wizard

This wizard will help you upload your SSH keys, set your application namespace,
and check that other programs like Git are properly installed.

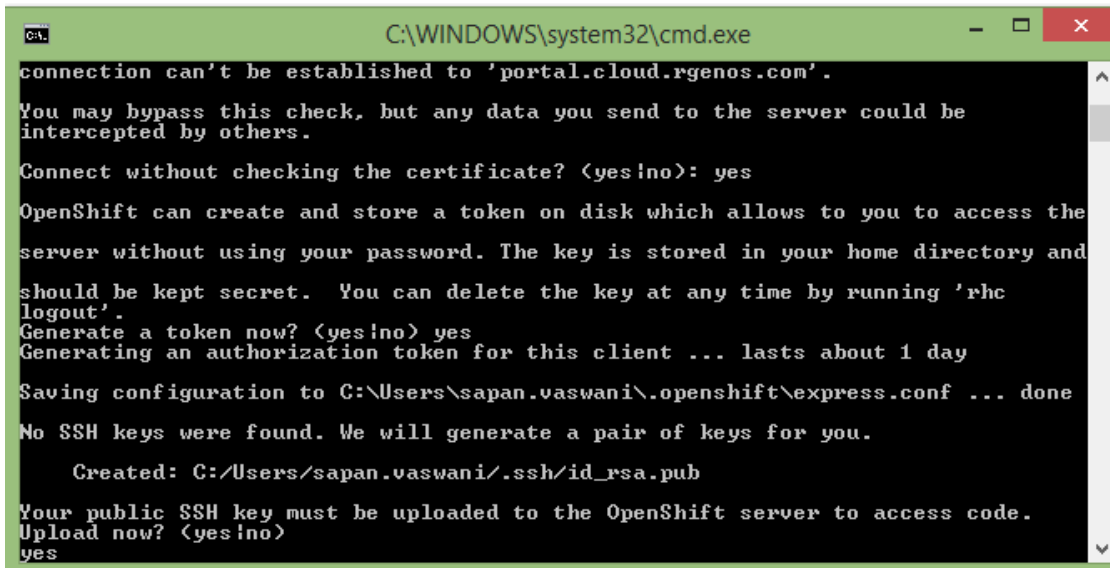
Using sapanv to login to portal.cloud.rgenos.com
The server's certificate could not be verified, which means that a secure
connection can't be established to 'portal.cloud.rgenos.com'.

You may bypass this check, but any data you send to the server could be
intercepted by others.

Connect without checking the certificate? (yes/no): yes

OpenShift can create and store a token on disk which allows to you to access the
server without using your password. The key is stored in your home directory and
should be kept secret. You can delete the key at any time by running 'rhc
logout'.
Generate a token now? (yes/no) yes
```

- Next, enter **yes** when asked for uploading your public SSH key to OpenShift server.



```
C:\WINDOWS\system32\cmd.exe

connection can't be established to 'portal.cloud.rgenos.com'.
You may bypass this check, but any data you send to the server could be
intercepted by others.

Connect without checking the certificate? (yes/no): yes

OpenShift can create and store a token on disk which allows to you to access the
server without using your password. The key is stored in your home directory and
should be kept secret. You can delete the key at any time by running 'rhc
logout'.
Generate a token now? (yes/no) yes
Generating an authorization token for this client ... lasts about 1 day
Saving configuration to C:\Users\sapan.vaswani\.openshift\express.conf ... done
No SSH keys were found. We will generate a pair of keys for you.

Created: C:/Users/sapan.vaswani/.ssh/id_rsa.pub

Your public SSH key must be uploaded to the OpenShift server to access code.
Upload now? (yes/no)
yes
```

- Further you will be asked to enter a name for the Key which is not mandatory. In any case, press Enter.

OpenShift 2.X Visual Studio Tool User Guide V 1.0

```

C:\WINDOWS\system32\cmd.exe

No SSH keys were found. We will generate a pair of keys for you.

Created: C:/Users/sapan.vaswani/.ssh/id_rsa.pub

Your public SSH key must be uploaded to the OpenShift server to access code.
Upload now? (yes/no)
yes

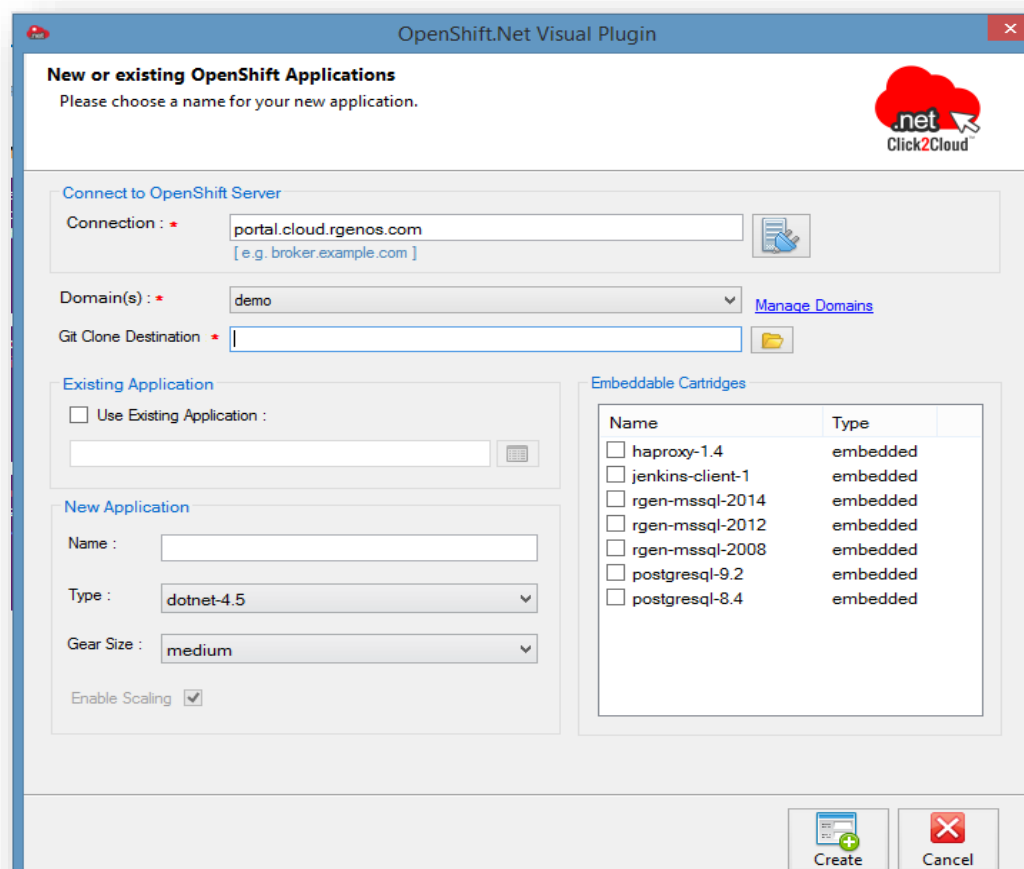
default (type: ssh-rsa)
Fingerprint: 97:1d:82:63:59:59:4a:d3:fc:65:4c:be:6c:c4:40:2c

sapanvWSD011 (type: ssh-rsa)
Fingerprint: d5:23:39:ba:35:2a:a3:ac:1f:8b:05:43:cf:3c:75:18

sapanvWSD023 (type: ssh-rsa)
Fingerprint: 3e:16:5d:54:e0:59:ea:16:d2:87:45:c2:11:a1:df:a5

You can enter a name for your key, or leave it blank to use the default name.
Using the same name as an existing key will overwrite the old key.
Provide a name for this key: isapanvWSD0231!
  
```

8. Below dialog will load Cartridges, Domains, Gears and Applications of respective selected domain.



OpenShift.Net Visual Plugin

New or existing OpenShift Applications
Please choose a name for your new application.

Connect to OpenShift Server

Connection : [e.g. broker.example.com]

Domain(s) : [Manage Domains](#)

Git Clone Destination :

Existing Application

☐ Use Existing Application :

New Application

Name :

Type :

Gear Size :

Enable Scaling ☒

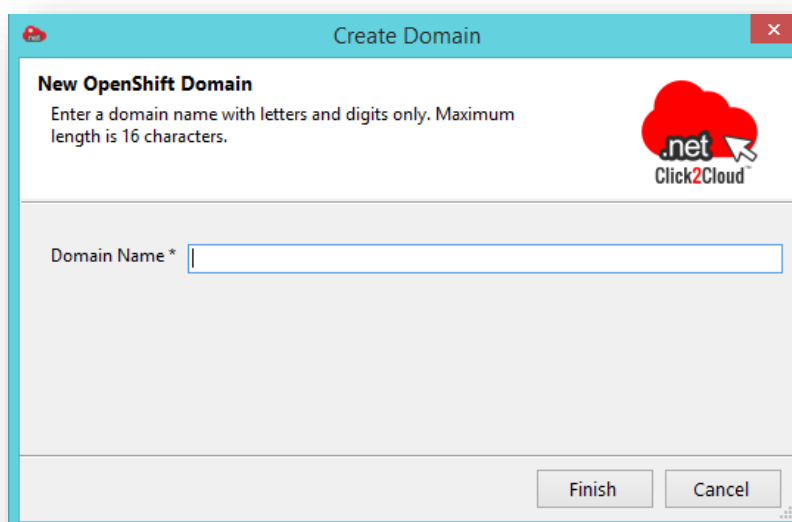
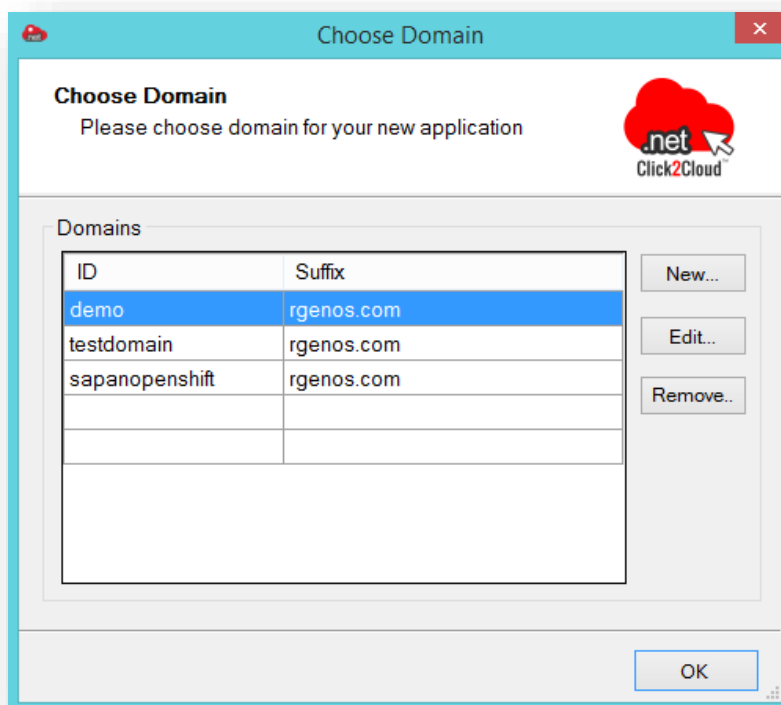
Embeddable Cartridges

Name	Type
<input type="checkbox"/> haproxy-1.4	embedded
<input type="checkbox"/> jenkins-client-1	embedded
<input type="checkbox"/> rgen-mssql-2014	embedded
<input type="checkbox"/> rgen-mssql-2012	embedded
<input type="checkbox"/> rgen-mssql-2008	embedded
<input type="checkbox"/> postgresql-9.2	embedded
<input type="checkbox"/> postgresql-8.4	embedded

[Create](#) [Cancel](#)

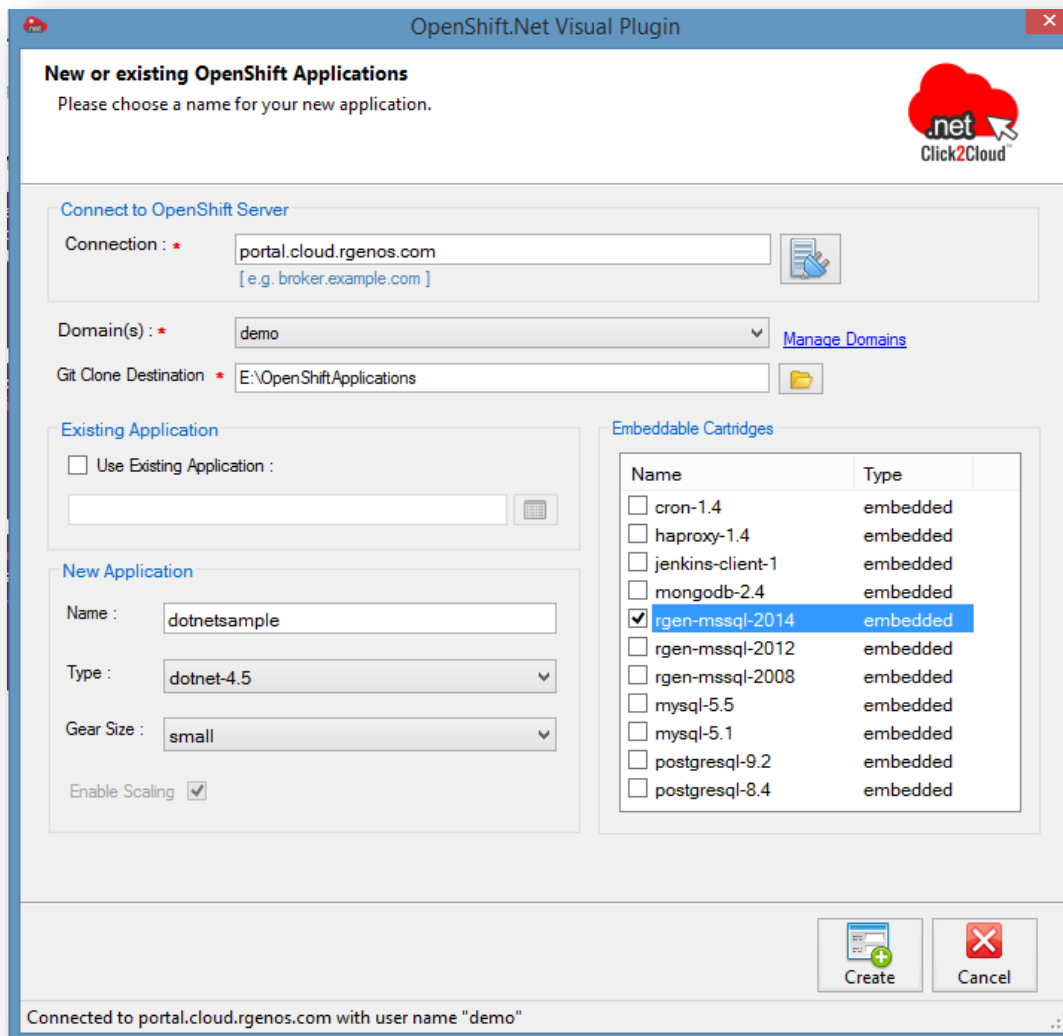
Manage Domains

9. For creating new domain name, click on [Manage Domains](#) link, Click on New, enter domain name and then click on **OK** button.



Create New Application

10. To create new application, click on **Browse for folder location** button, select destination for cloning (copying) application and after that enter the name for new application in **Name** textbox, select application type from **Type** dropdown, select gear size from **Gear Size** dropdown and select required cartridge under **Embedded Cartridges** list and then click **Create** button.



OpenShift.Net Visual Plugin

New or existing OpenShift Applications
Please choose a name for your new application.

Connect to OpenShift Server

Connection : * portal.cloud.rgenos.com
[e.g. broker.example.com]

Domain(s) : * demo [Manage Domains](#)

Git Clone Destination * E:\OpenShift.Applications

Existing Application

☐ Use Existing Application :

New Application

Name : dotnetsample

Type : dotnet-4.5

Gear Size : small

Enable Scaling ☒

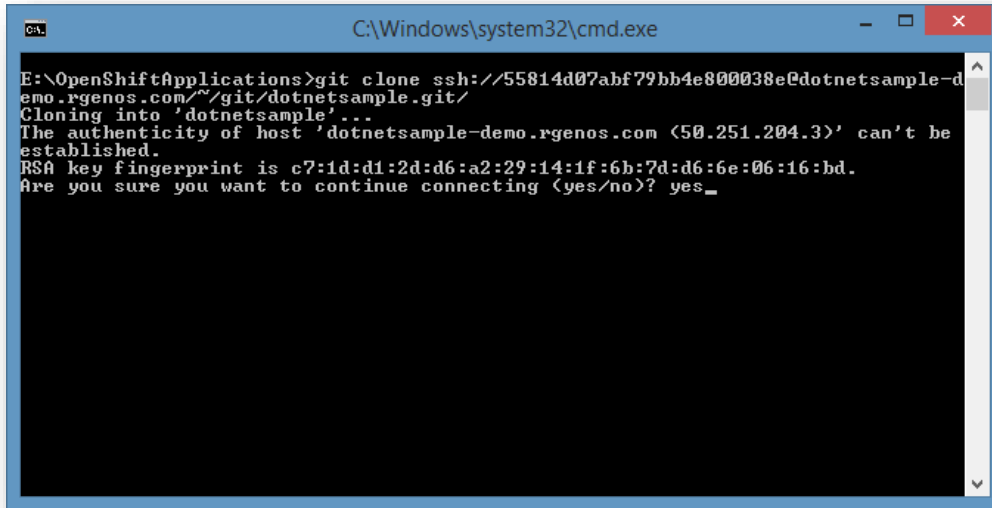
Embeddable Cartridges

Name	Type
<input type="checkbox"/> cron-1.4	embedded
<input type="checkbox"/> haproxy-1.4	embedded
<input type="checkbox"/> jenkins-client-1	embedded
<input type="checkbox"/> mongodb-2.4	embedded
<input checked="" type="checkbox"/> rgen-mssql-2014	embedded
<input type="checkbox"/> rgen-mssql-2012	embedded
<input type="checkbox"/> rgen-mssql-2008	embedded
<input type="checkbox"/> mysql-5.5	embedded
<input type="checkbox"/> mysql-5.1	embedded
<input type="checkbox"/> postgresql-9.2	embedded
<input type="checkbox"/> postgresql-8.4	embedded

Create **Cancel**

Connected to portal.cloud.rgenos.com with user name "demo"

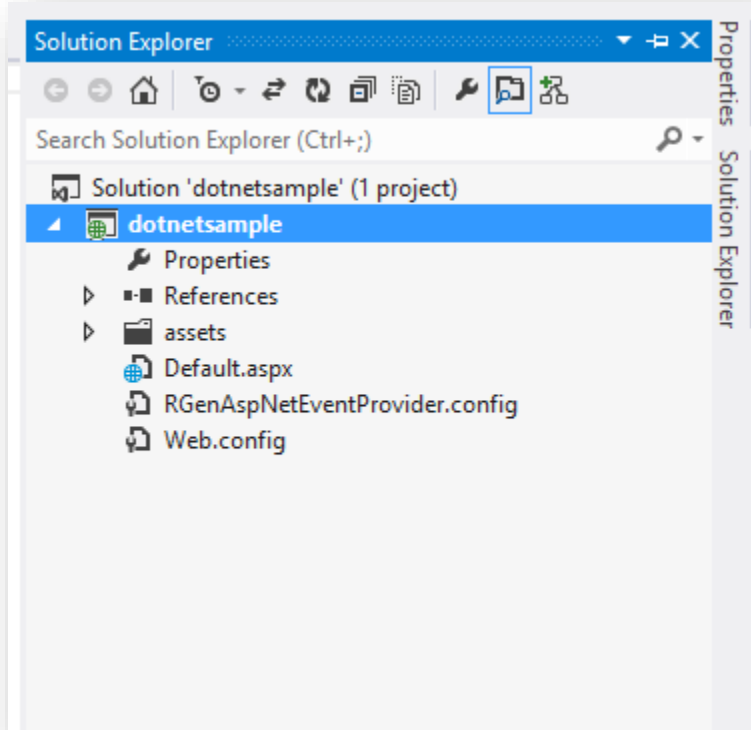
11. After successful creation of application it will start cloning. After some time you will be asked to continue connecting, refer below. Enter **yes** to continue.



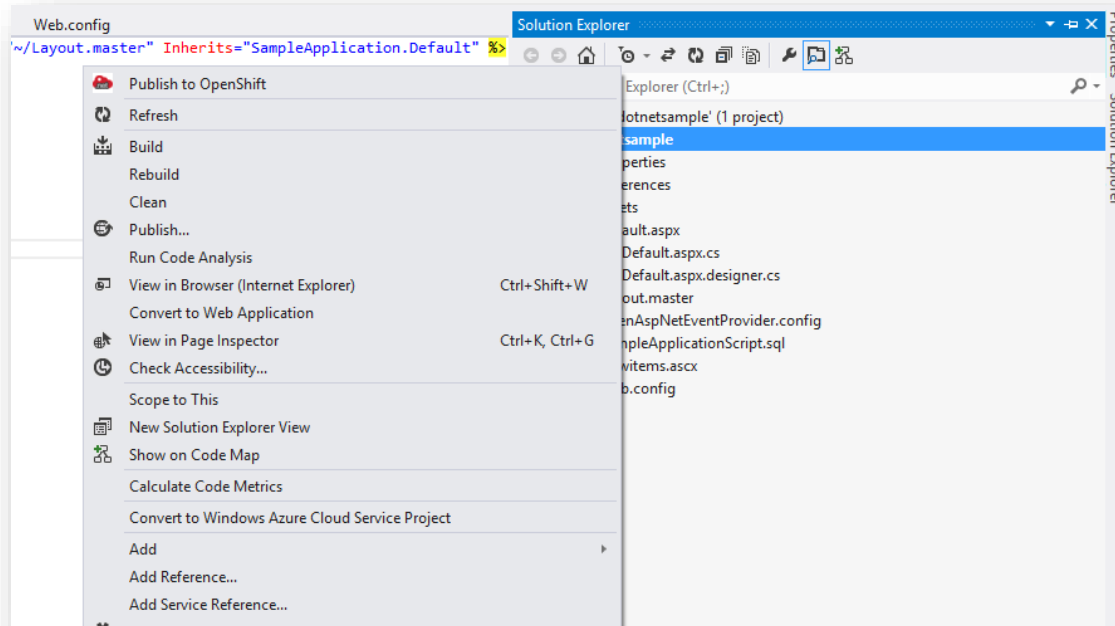
```
C:\Windows\system32\cmd.exe

E:\OpenShiftApplications>git clone ssh://55814d07abf79bb4e800038e@dotnetsample-d
emo.rgenos.com:~/.git/dotnetsample.git/
Cloning into 'dotnetsample'...
The authenticity of host 'dotnetsample-demo.rgenos.com (50.251.204.3)' can't be
established.
RSA key fingerprint is c7:1d:d1:2d:d6:a2:29:14:1f:6b:7d:d6:6e:06:16:bd.
Are you sure you want to continue connecting (yes/no)? yes_
```

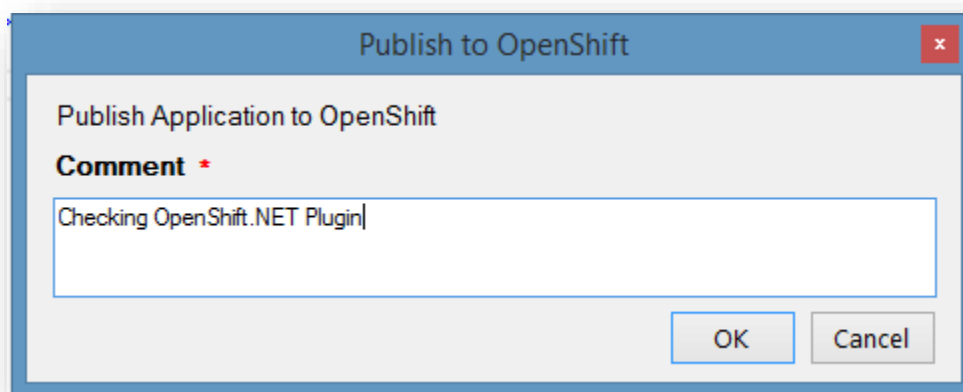
12. Once application is successfully clone on specified location, project will be open in **Visual Studio**.



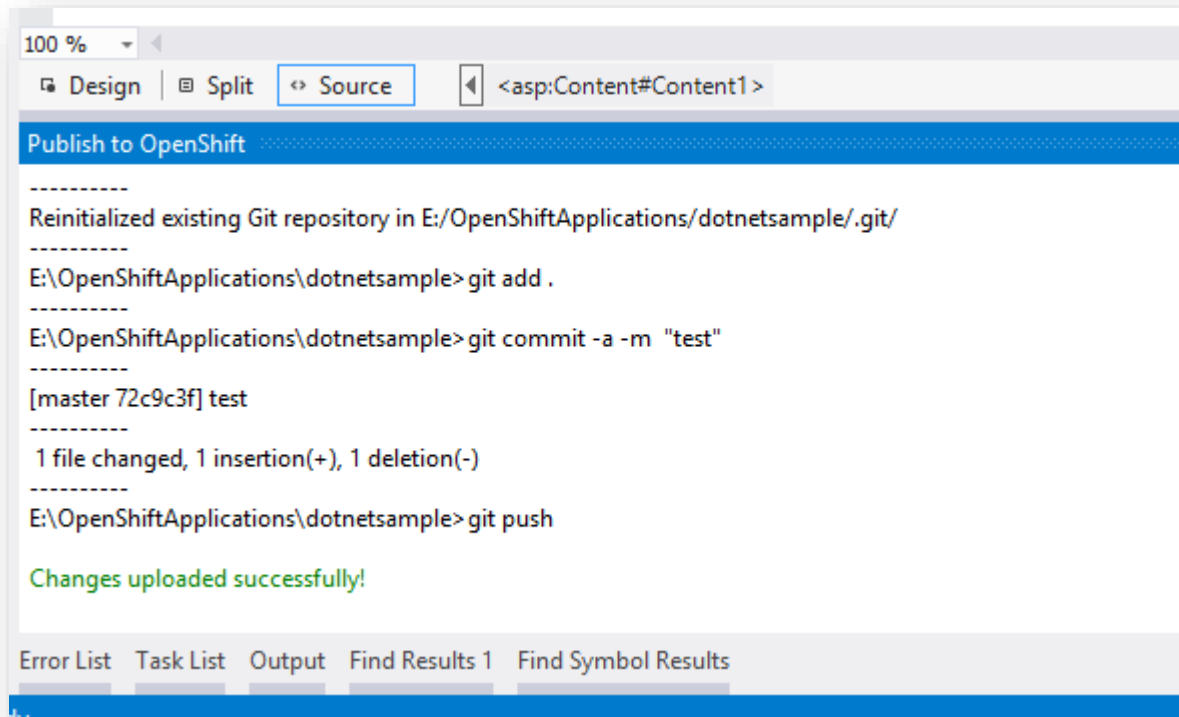
13. To deploy changes on OpenShift using OpenShift.NET Visual Studio Plugin, modify any content as per requirement. Save the file and right click on Project in **Solution Explore** and then select **Publish to OpenShift**.



14. In the **Publish to OpenShift** window, enter **Comment** and click **OK**.



15. Once application is deployed successfully, it will show publish logs in **Publish to OpenShift** window.




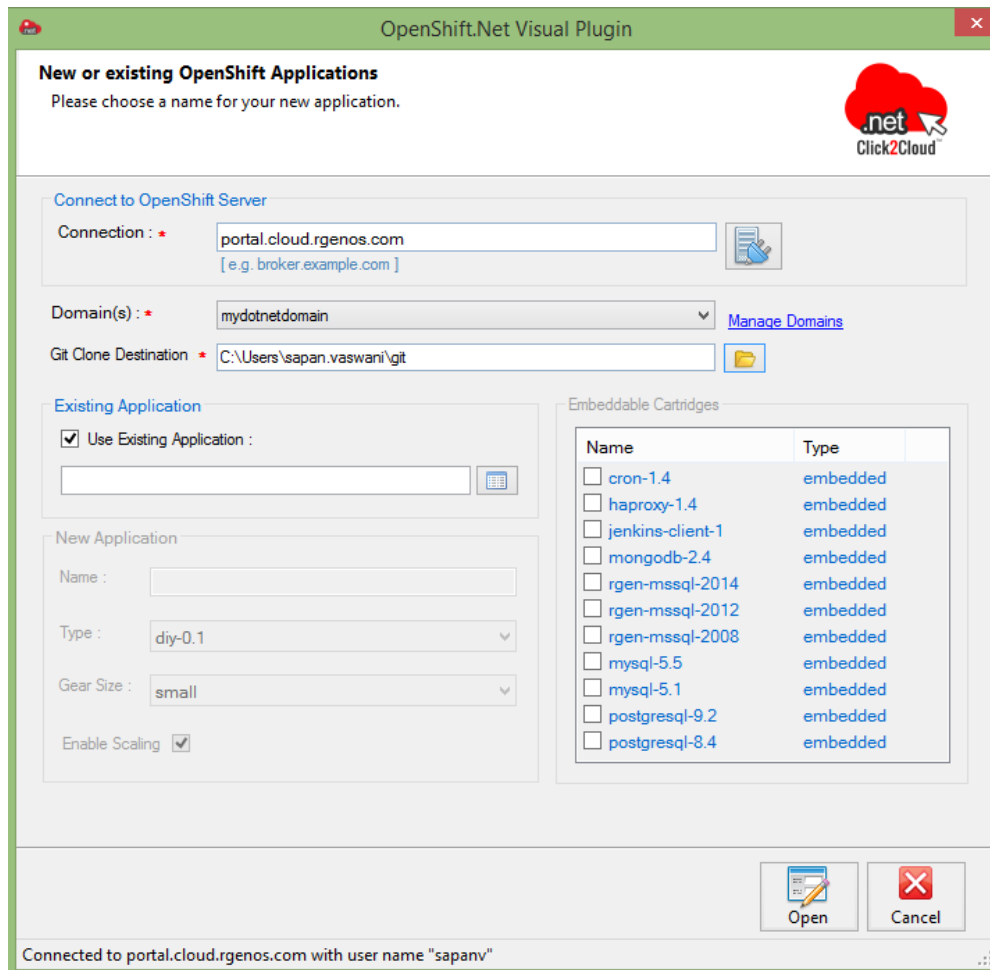
The screenshot shows the Visual Studio Source window with the 'Publish to OpenShift' output. The output text is as follows:


```
100 %
Design | Split | Source | <asp:Content#Content1>
Publish to OpenShift
-----
Reinitialized existing Git repository in E:/OpenShiftApplications/dotnetsample/.git/
-----
E:\OpenShiftApplications\dotnetsample> git add .
-----
E:\OpenShiftApplications\dotnetsample> git commit -a -m "test"
-----
[master 72c9c3f] test
-----
1 file changed, 1 insertion(+), 1 deletion(-)
-----
E:\OpenShiftApplications\dotnetsample> git push
Changes uploaded successfully!
```

At the bottom of the window, there are tabs for 'Error List', 'Task List', 'Output', 'Find Results 1', and 'Find Symbol Results'.

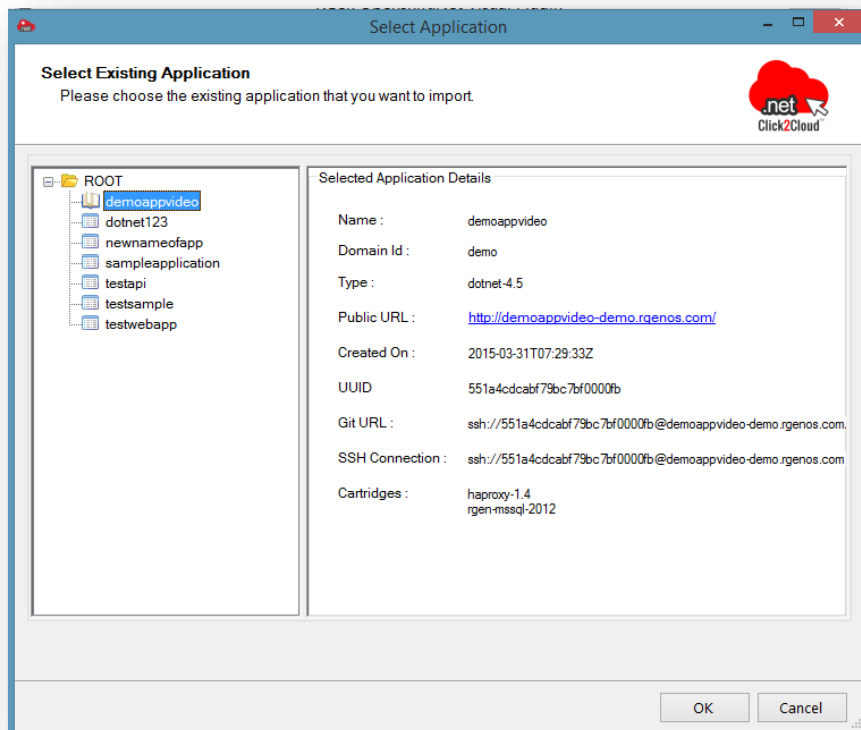
Import Existing Application

16. Click on **Create Edit OpenShift Application** from **Tools** in Visual Studio. Click **OK** on trial period window. Connect to OpenShift Server. Check **Existing Application** box.
17. Click on button  (Browse for folder location), select destination for cloning (copying) application and then click on **Open**.

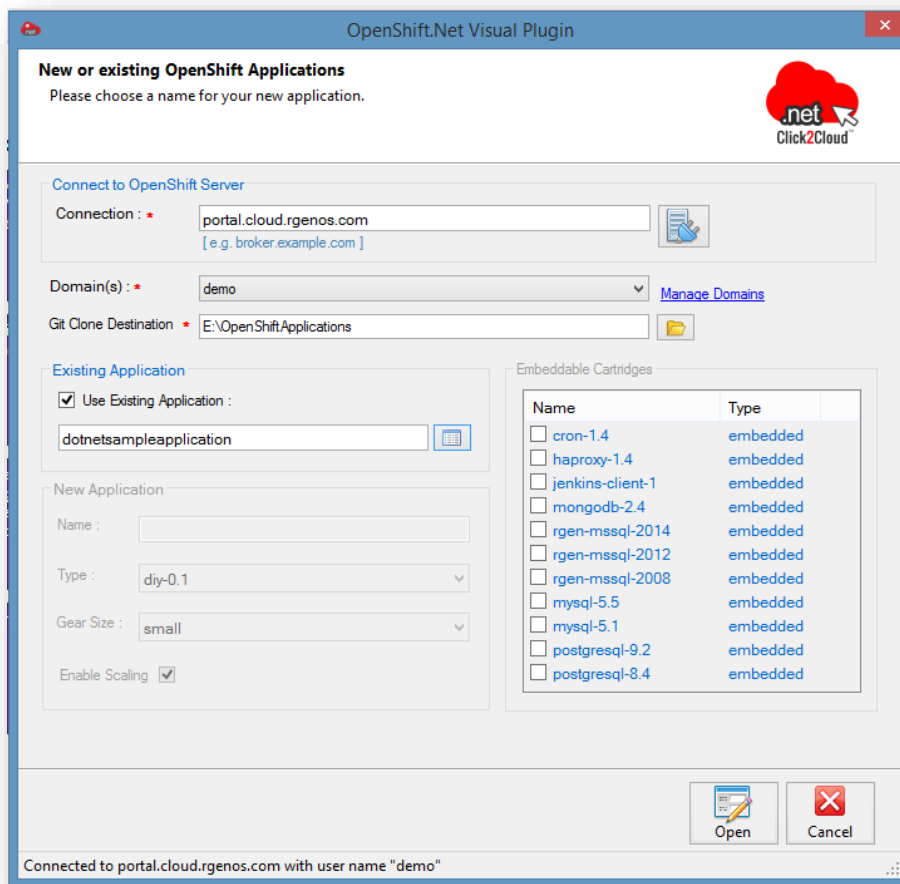


18. Click on button  (Browse for existing application(s)), a dialog will open, just like below, which shows list of existing applications against selected domain. Select any one application name and then click on **OK** button.

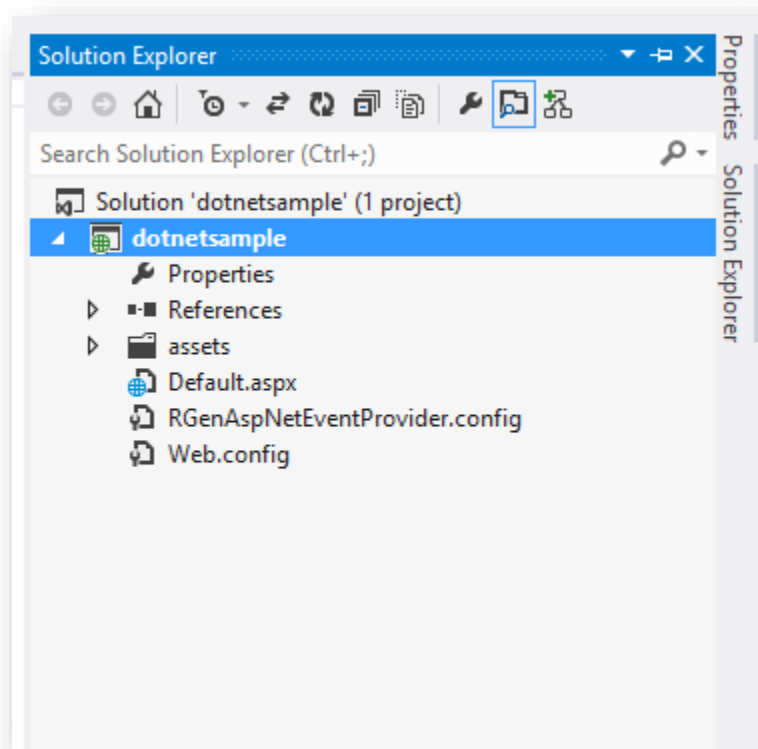
You will see selected application name which will populate into text box present inside **Existing Application** section.



19. Click on **Open** button, and cloning will start at specified location. It will take few minutes to copy data.



20. You will see output like below in **Solution Explorer**.

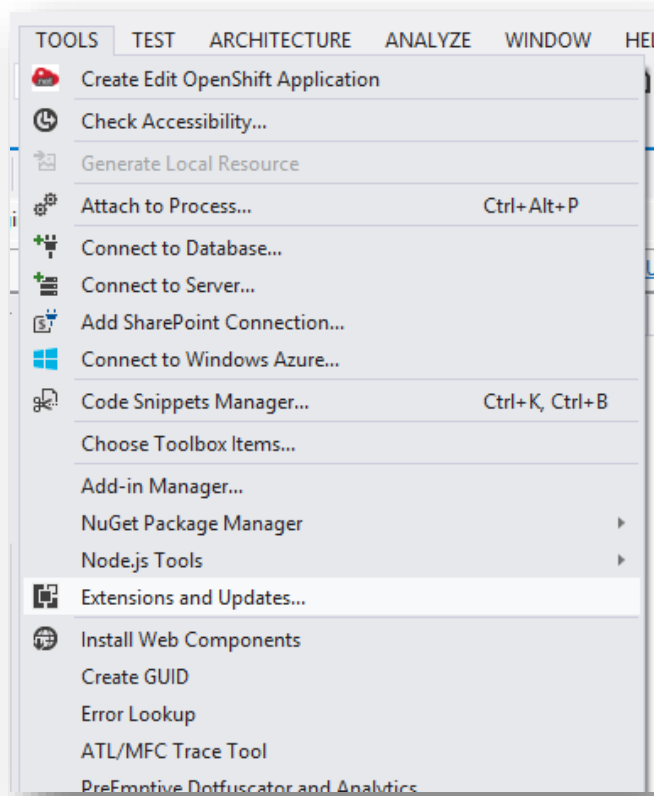


21. To Edit and deploy changes follow from Point 13 – 16 in [Create New Application section](#).

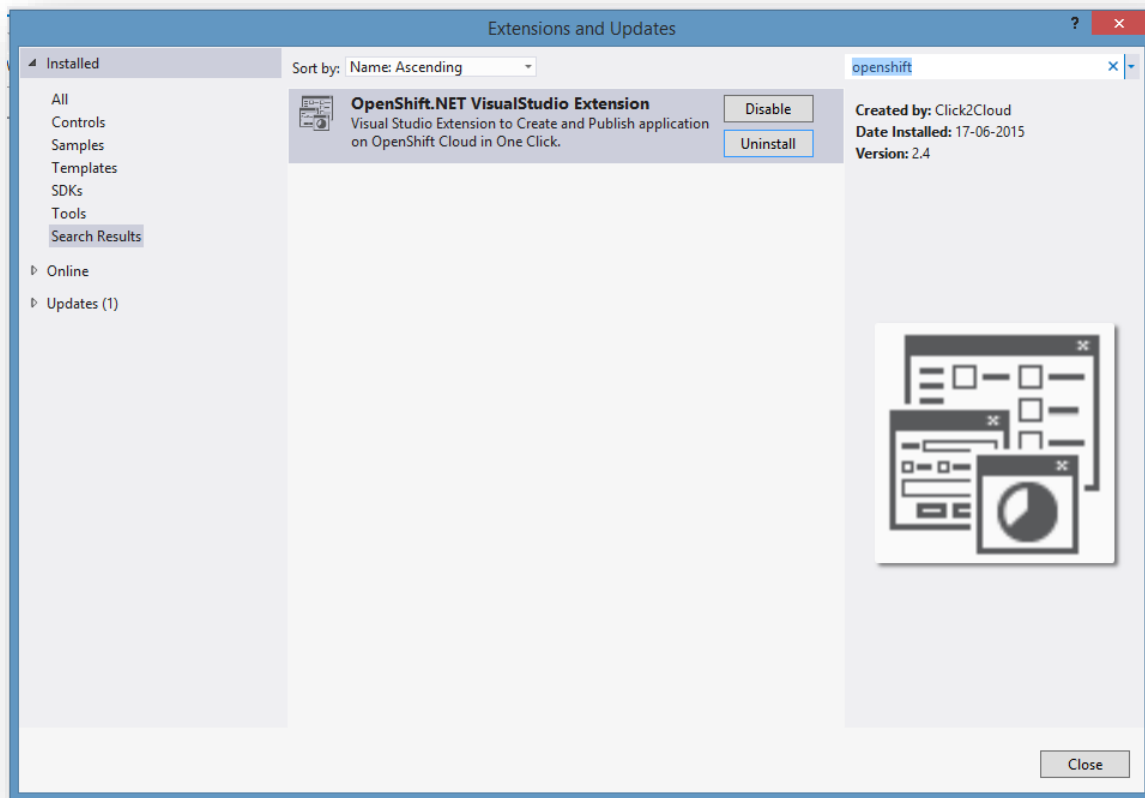
Uninstall Visual Studio Plugin

To uninstall Visual Studio Plugin, open the Visual Studio Instance where OpenShift.NET Visual Studio Plugin is already installed and follow below steps

1. Under **TOOLS** menu bar, select **Extensions and Updates...**



2. In **Extensions and Updates** window, search for **OpenShift.NET Visual Studio Extension**



3. Now click on Uninstall button and then select **Yes** to uninstall plugin.

