Developing and deploying MVC4/HTML5 SDK application to IIS

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Introduction

This tutorial explain how to create and deploy a MVC4 web application that using command line exe for PowerPoint to HTML5 conversion.

Tested machines:

We tested the HTML5 SDK web application in the following combinations.

Win 8 x64, PowerPoint 2013 x64, IIS 8.0

Win 8.1 x64, PowerPoint 2013 x64, IIS 8.5

Win Server 2008 x64, PowerPoint 2013 x64, IIS 7.0

Requirements

Development machine:

PowerPoint 2007 or later.

Visual Studio 2012.

Install WebDeploy_amd64 for Publishing the App.

Install HTML5Point SDK latest version (4.0.51 later)

.Net 4 or .Net 4.5

Target Machine:

.Net 4 or .Net 4.5

IIS 7 or IIS 8

PowerPoint 2007 or later.

Install HTML5Point SDK latest version (4.0.51 or later)

Install WebDeploy_amd64 for Importing the App.

Create command line exe using HTML5Point SDK

Install latest HTML5Point SDK. And then create a *command line exe* for PowerPoint to HTML5 conversion.

Install and configure IIS

Open Control panel -> Click 'Programs and Features'

9		All Cor
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Adjust your computer's sett	tings	
🏲 Action Center	🍓 Administrative Tools	📑 AutoPlay
Credential Manager	🕒 Date and Time	🔣 Default Programs
🖳 Display	Ease of Access Center	🍓 Family Safety
F Folder Options	强 Fonts	🍓 HomeGroup
📖 Keyboard	😪 Language	🖾 Location Settings
📟 Notification Area Icons	📥 NVIDIA Control Panel	Performance Information and Tools
🗃 Power Options	Programs and Features	🌮 Recovery
🛋 Sound	Speech Recognition	Storage Spaces
Taskbar	Troubleshooting	🍇 User Accounts
🔗 Windows Firewall	늘 Windows To Go	🀼 Windows Update

Click 'Turn Windows features on or off-> In Windows features dialog check on .Net Framework 4.5 advanced service. If you want to develop a 3.5 app then check on .Net 3.5 Framework support also.

Check on Internet information Service.

📀 🎅 🔻 🍸 🕨 Control Panel → All Control Panel Items → Programs and Features				
Control Panel Home	Uninstall or change a program			
View installed updates	To uninstall a program, select it from the list and then click Uninstall, Change, or Repair.			
Turn Windows features on or off	💽 Windows Features – 🗆 🗙			
Na	Turn Windows features on or off			
	To turn a feature on, select its check box. To turn a feature off, clear its check box. A filled box means that only part of the feature is turned on.			
	INET Framework 3.5 (includes .NET 2.0 and 3.0) INET Framework 4.5 Advanced Services Active Directory Lightweight Directory Services Internet Explorer 10			
ne re	Internet Information Services Internet Information Services Hostable Web Core Internet Information Services Hostable Web Core Internet Information Services Hostable Web Core			
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23 15 •	RAS.Connection Manager Administration Kit (CMAK)			
15				

Make sure the following marked features are checked on. If you want to develop app in 3.5 then check on ASP .Net 3.5 also. Then click OK.

Internet Information Services
+ TP Server
Web Management Tools
IIS 6 Management Compatibility
✓ IIS Management Console
IIS Management Scripts and Tools
IIS Management Service
World Wide Web Services
Application Development Features
NET Extensibility 3.5
.NET Extensibility 4.5
Application Initialization
ASP
ASP.NET 3.5
ASP.NET 4.5
CGI
ISAPI Extensions
ISAPI Filters
Server-Side Includes
WebSocket Protocol
🗄 🛃 Common HTTP Features
Performance Features

Create and publish MVC4 Web application.

Install WebDeploy_amd64_en-US for publishing the web application.

Sample project (HTML5PointSDK\Example\MVC4\Mvc4Converter)

Create a new MVC 4 project. Open Visual Studio 2012->New Project-> ASP .NET MVC4 Web Application



New ASP.NET MVC	4 Project ×
Project Template	Description
Empty Basic Mobile Application Mobile Basic Mobile Basic Mobile Meb API Application	A basic ASP.NET MVC 4 project.
View engine: Razor	↓ ¥
Create a unit test project Test project name: Mvc4Converter.Tests	
Test <u>f</u> ramework: Visual Studio Unit Test	✓ Additional Info
	OK Cancel

Add a new controller.



Set controller name to HomeController-> Then click Add button.

Template: Empty MVC controller Model class:	
Empty MVC controller Model class:	· · · · · · · · · · · · · · · · · · ·
Model class:	
Data context class:	
Views:	

Add view for Index page.

Right click on Index function->Click Add View

e HomeController.cs ㅋ ×				
😨 🔩 Mvc4Converter.Controllers.HomeControll	er			- 🖓 I
<pre>using System; using System.Collections.Gene using System.Linq; using System.Web; using System.Web.Mvc;</pre>	ric;			
<pre>namespace Mvc4Converter.Control { public class HomeControl { // [// GET: /Home/ // GET: // GET: /Home/ // GET: /Home/ // GET: //</pre>	oller: er : (s Controller		
{		Add View	Ctrl+M, Ctrl+V	
return View();	6	Go To View	Ctrl+M, Ctrl+G	
- 3		Refactor		F
}		Organize Usings		F
[]		Generate Sequence Diagram		
	►	Run Tests	Ctrl+R, T	
		Debug Tests	Ctrl+R, Ctrl+T	
	ta	Insert Snippet	Ctrl+K, X	
	ta	Surround With	Ctrl+K, S	
	•	Go To Definition	F12	
		Find All References	Ctrl+K, R	
	\mathbb{Z}	View Call Hierarchy	Ctrl+K, Ctrl+T	
		Breakpoint		F
	h.	Run To Cursor	Ctrl+F10	
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	ж	Cut	Ctrl+X	
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	a di	Paste	Ctrl+V	
		Outlining		۱.

Add the following code into Index view. This will allow you to upload a presentation file.

```
@{
    ViewBag.Title = "Publish Presentation";
}
<div class="jumbotron">
    <hi>Upload PowerPoint presentation:</hi>
    @using (Html.BeginForm("FileUpload", "Home", FormMethod.Post,
        new { enctype = "multipart/form-data" }))
    {
        @Html.ValidationSummary();
        <input type="file" id="fileToUpload" name="file" />
        <span class="field-validation-error" id="spanfile"></span>
        <input type="submit" id="btnSubmit" value="Upload" />
        }
</div>
```

Add the following functions to HomeController for saving uploaded file and then convert it.

```
[HttpPost]
public ActionResult FileUpload(HttpPostedFileBase file)
{
    if (ModelState.IsValid)
    {
        if (file == null)
        {
            ModelState.AddModelError("File", "Please Upload Your file");
        }
        else if (file.ContentLength > 0)
        {
            int MaxContentLength = 1024 * 1024 * 3; //3 MB
            string[] AllowedFileExtensions = new string[] { ".pptx", ".ppt" };
            if (!AllowedFileExtensions.Contains(
                     file.FileName.Substring(file.FileName.LastIndexOf('.'))))
            {
                 ModelState.AddModelError("File", "Please file of type: " +
                     string.Join(", ", AllowedFileExtensions));
            }
            else if (file.ContentLength > MaxContentLength)
            {
                 ModelState.AddModelError("File",
                     "Your file is too large, maximum allowed size is: " +
                     MaxContentLength + " MB");
            }
            else
            {
                 var fileName = Path.GetFileName(file.FileName);
                 var path = Path.Combine(Server.MapPath("~/Content/Upload"), fileName);
                 file.SaveAs(path);
                 ModelState.Clear();
                 PublishPresentation(path,
                     Path.Combine(Server.MapPath("~/Content/Upload/"), "out.html"));
                 ViewBag.Message = "File published successfully";
                 ViewBag.OutputPath = "../Content/Upload/out/out.html";
            }
        }
    }
    return View();
}
bool PublishPresentation(string srcpath, string outPath)
{
    ProcessStartInfo psi = new ProcessStartInfo();
    //C:\Program Files (x86)\Common
Files\DigitalOfficeProShared\Converter\HTML5Point\SupportFiles\Converter.exe
    psi.FileName = Path.Combine(Server.MapPath("~/bin"), "Converter.exe");
psi.Arguments = " -input \"" + srcpath + "\" -output \"" + outPath + "\"";
    psi.UseShellExecute = false;
    Process proc = new Process();
    proc.StartInfo = psi;
    proc.Start();
    proc.WaitForExit();
    return true;
}
```

Add view for FileUpload: Right click on FileUpload function and select Add View command.

Add following code snippet into FileUpload view file (FileUpload.cshtml)

```
@{
    ViewBag.Title = "FileUploaded";
}
<h2>@ViewBag.Message</h2><br />
<h1>@ViewBag.OutputPath</h1>
<a href ="@ViewBag.OutputPath">Click here to view the HTML5</a>
```

Build the application and then press F5 to run/debug.

Publish the application:

Right click on project in solution explorer->Select Publish command



Click New and add profile name.

	Publish Web ? 🗙
Publish web ap	pplication
¥ .	
Profile Connection Settings	Publishing to Windows Azure? <u>Download your publishing profile or sign up for a free account</u> For other hosting options, <u>visit our web hosting gallery</u>
Preview	mvc4converter v Import
	< Prev Next > Publish Close

Select publish method to Web Deploy Package

Select publish location then click publish.

	Publish Web	? ×
Publish web appl	lication	
v		
Profile	mvc4converter	
Connection	Publich method: Web Deploy Package	
Settings	Publish method. Web Deploy Fackage	
Preview		
	Package location: C:Users/bajeesn/Desktop/Wivc4Converter.zip	
	Site/application: e.g. Default Web Site/MyApp	
	< Prev Next > Publish	Close

Deploy MVC4 Webapplication on IIS

1. Import MVC4 package into IIS. (Select 'Default Web Site' and click 'Import Application' in Action pane)



- Create a folder named 'Upload' under imported path (eg: C:\inetpub\wwwroot\test1_deploy\Content\Upload) where presentations are kept for conversion.
- 3. Create 'out' folder under 'Upload' folder where we are publishing the presentation.
- 4. Set full permission for 'Upload' folder for DefaultAppPool user.
 - Right click 'Upload' folder->Select security tab->Click Edit button
 - In the Permission dialog->Select 'DefaultAppPool' in 'Group or User name'
 - Allow full control for 'DefaultAppPool'



Computer → Local Disk (C:) → inetpub → www.root → test1_deploy → Content

5. If we are using a command line exe for ppt to HTML5 conversion then copy the exe and all dependent assemblies into bin folder.

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File Home Share	View				
🔆 Favorites	Name	Date modified	Туре	Size	
🔲 Desktop	🚳 Antlr3.Runtime.dll	2/20/2014 11:13 AM	Application extens	104 KB	
〕 Downloads	configuration	1/26/2014 10:55 PM	CONFIG File	3 KB	
🗐 Recent places	🚳 EntityFramework.dll	2/20/2014 11:13 AM	Application extens	1,091 KB	
	Microsoft.Web.Infrastructure.dll	2/20/2014 11:13 AM	Application extens	45 KB	
🥃 Libraries	Newtonsoft.Json.dll	2/20/2014 11:13 AM	Application extens	366 KB	
Documents	ppt2html5	2/12/2014 1:13 AM	Application	21 KB	
👌 Music	System.Net.Http.dll	7/10/2012 10:52 PM	Application extens	177 KB	
Pictures	System.Net.Http.Formatting.dll	2/20/2014 11:13 AM	Application extens	165 KB	
📑 Videos	🚳 System.Net.Http.WebRequest.dll	7/10/2012 10:52 PM	Application extens	17 KB	
	🚳 System.Web.Http.dll	2/20/2014 11:13 AM	Application extens	316 KB	
輚 Homegroup	🚳 System.Web.Http.WebHost.dll	2/20/2014 11:13 AM	Application extens	72 KB	
	🚳 System.Web.Mvc.dll	2/20/2014 11:13 AM	Application extens	496 KB	
🛤 Computer	System.Web.Ontimization.dll	2/20/2014 11:13 AM	Application extens	54 KB	

6. Make sure whether 'DefaultAppPool' is selected for MVC4 app.



Features View 💦 Content View

- 7. Configure Authentication settings (Not necessary).
- Select your new app in connections pane ->Double click Authentication icon in Featured View.

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	tes → Default Web Site → test1_deploy →
File View Help	
Connections	/test1_deploy Home
Application Pools ⊿ 🔞 Sites	ASP.NET
Default Web Site Image: segmet client Image: segmet client	NET .NET .NET .NET Error .NET .NET Profile .NET Roles .NET Trust .NET Users Levels
	ASP Authentic Configure authentication settings for sites and applications Mappings Redirect
	WebDAV Authori
	Management
	Editor

• Right click AnonymousAuthentication and select Edit command.

(→ CITY999 → Sites → Default Web Site → test1_deploy →					
File View Help					
Connections	Group by: No Grouping •				
A Sites	Name	Status	Response Type		
a 😜 Default Web Site 🤞	Anonymous Authentication	Enabled			
> - <mark>○</mark> aspnet_client > +	ASP.NET Im Forms Auth Anonymous user i Specific user: IUSR Application po	mous Authentic identity: ol identity	Cation Credentials Set OK Car	2 ×	

- Set specific user by clicking Set button.
- Set current user and password here, and then click OK. (Remember this user information, need to use the same later)

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File View Help				
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Application Pools	Group by: No Gro	ouping 🔹		
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		nonymous user i	dentity:	Set Set Credentials Set User name: Current user name here Password: Confirm password: OK Cancel

- 8. Change DefaultAppPool identity.
- Select Application Pool-> Select DefaultAppPool -> Click 'Advanced settings' command in Action pane->Select identity and click edit button->Select Custom account and click Set button->Set current user information (already used in previous step) and then click OK.

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Ping Maximum Response Time I 90				Ping Maximum Response Time	90		
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Startup Time Limit (seconds) 90 V				Startup Time Limit (seconds)	90	~ L	
Identity				Identity			
[identityType, username, password] Configures the application pool to run as built-in account, i.e. Application Pool Identity (recommended), Network Service, Local System, Local Service, or as a specific user identity.				[identityType, username, password] as built-in account, i.e. Application F Service, Local System, Local Service,	Configures the application p Pool Identity (recommended or as a specific user identity	pool to run ł), Network :	
OK Cancel					ОК	Cancel	

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- 9. Set local activation permission for current user for PowerPoint (Not necessary).
- Open Component Service under Adminitrative tools. Then open DCOM Config folder->Select 'MicroSoft PowerPoint Application' component.
- Right click and select Properties command->Select Security tab-> Select 'Custom' options and click Edit button-> Click Add button->Then click Advanced button-> Click 'Find Now' button in Select Users & Group dialog->Select current user (as in the previous step) and click OK->Check on 'Local Activation' for added user under 'Lauch and Activation Permission' dialog.





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Group or user names:			Select Users or G	roups ?
SYSTEM Administrators (city999\Administrators) INTERACTIVE	auncher on		Select this object type: Users, Groups, or Built-in security principals From this location: CITY999	Object Types
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10. In order to run converter exe create Desktop under the following folders.

• C:\Windows\SysWOW64\config\systemprofile\Desktop C:\Windows\System32\config\systemprofile\Desktop