Travelport

Creating Installer

Tutorial for creating installer for Smartpoint Plugin

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a. Adding Project

Right click on the solution and click on "Add Project"

Add New Project			- X 9
▶ Recent	.NET Framework 4.5	- # E	Search Installed Templates (Ctrl+E)
 Installed Visual C# Windows Installer XML Other Languages Other Project Types Extensibility Setup and Deployment Online 	InstallShield Limited Edition Project	Setup and Deployment	Type: Setup and Deployment Create a new InstallShield Limited Edition project.
Name: Setup1 Location: C:\MyFiles\Sma	rtpoint\Plugins\Hello World	•	Browse OK Cancel

Expand "Other Project Types" and select "Setup and Deployment".

b. Application Information



You will be presented with the Wizard below.

Enter Company, Application Name, Version Number and ULR and click Next.

c. File Output

Click Next three times to go to the File Output screen below



Click on "Add Project Outputs" and check the "Primary output" for both the projects.

Visual Studio Output Selector	Visual Studio Output Selector
Select the Project Output groups of the following Visual Studio Project that you wish to add to your InstallShield project:	Select the Project Output groups of the following Visual Studio Project that you wish to add to your InstallShield project:
Hello World Cancel Hello World Contaized resources XML Serialization Assemblies Content Files Content Files Content Files ConfigFileCreator Cet ConfigFileCreator Cet Localized resources	Occumentation Files Occumentation Files Occumentation Assemblies Occument Files Occument Files Occument Files Occumentation Files Occumentation Files Occumentation Files

You should have the below with the two output added.

Add any other Dependency you may have by clicking on "Add Files" or "Add Folders" button.

d. Excluding Referenced Assemblies.

Right check on eden of the finnary outputs and choose in operates	Right Click	on each of the	Primary Outputs	and choose	"Properties"
---	--------------------	----------------	-----------------	------------	--------------

Properties	x
General COM & .NET Settings 🔒 Advanced	
Registration Type	
None	•
.NET Properties	
Scan at Build:	
None	-
Application File:	•
Installer Class	
COM Interop	
OK Cancel Apply H	ielp

Select "None" from the "Scan at Build" otherwise it will include all referenced assemblies including Smartpoint Dlls which already installed and will create duplicates.

e. Compression

Hello World - Microsoft Visual Studio (Adr <u>EILE EDIT VIEW</u> INSTALLSHIELD LE	ninistrator) PROJECT <u>B</u> UILD <u>D</u> EBUG T	EA <u>M</u> SQL F <u>O</u> RMAT <u>I</u> OOLS TE <u>S</u> T <u>B</u> ESHARPER A <u>N</u> ALYZE <u>WI</u> NDOW	Quick <u>H</u> ELP	Launch ρ – \Box X
C → O C → C → C → Releases (HelloWorldSetup) + × C → O Duids C → O	Attach Debug - # Attach Debug - # Buid Setup.exe Signing DVD-5 Release Release Location Media Size Unit Cluster Size E Compression Generate Autorun.inf Keep Unued Directories		•	Solution Explorer Solution Explorer Solution Explorer Search Solution Explorer (Ctrl+;) Search Solution Explorer (Ctrl+;) Customize the Setup Appearanc Dialogs E Billboards IT Text and Messages A Define Seture Requirements and
	Compression Specify whether your product's Compressed—InstallShie Uncompressed—InstallShie Compression I used (as specific Launcher setting on the Setup. For example, if you select Comp SingleImage release, your data Uncompressed for the Compress files are left uncompressed in a	data files should be compressed: eld compresses all of your product's data files into .cab files. Sheld does not compress your product's files into .cab files. depends on the media type that you are building (such as CD-ROM, DVD-5, or SingleImage), wheth din the Compression setting), and whether you are including a setup launcher (as specified in the So vers tab). ressed for the Compression setting, you select Yes for the Setup Launcher setting, and you are buil files are compressed into .cab files, and the .cab files are streamed into your Setup.exe file. If you is usbfolder of the folder that contains the .ms file.	er etup Iding a select your data	Arguirements InstallScript Installog InstallScript InstallScript Installog InstallS
Error List				

Click on "DVD-5" and make sure "Build" Tab is selected. Change the "Compression" property to "Compressed". This will bundle all the output in a .CAB file instead of creating a folder structure.

ebug	on:	Mixed Platforms	iduorm:	
oject contexts (check the	project configurations to build (or deploy):		
Project	Configuration	Platform	Build	Deploy
Danial.Utility	Debug	Any CPU	V	
Hello World	Debug	x86		
HelloWorld	SingleImage			

f. Single Image File

Optionally you can also decide to package all files into one .exe/.msi, you can do this by going to "Configuration Manager" and choosing "SingleImage" from the dropdown.

Helper.cs Files (Hel2)	R≓sases (HelloWorld) 👎 × Smartpoin	tHelper.cs Custom Actions (HelloWorld)
Builds Builds Express CD_ROM CD_RO	Build Setup.exe Signing SingleImage Release □ Setup Launcher Required Execution Level Include MSI Engine □ Include MSI Engine □ Cache MSI Locally Minimum Initialization Time □ Password Protect Launcher □ Use Custom Version Properties InstallShield Prerequisites Location	No Yes No No No Follow Individual Selections
	Specify whether you want to create a <i>Setup</i> To learn about scenarios that require a setu	<i>p.exe</i> setup launcher. Ip launcher, see <u>Creating a Setup Launcher</u> .

If you choose to go with MSI option, click on "SingleImage" and select "Setup.exe" tab and set the "Setup Launcher" attribute to "No". This will now produce a .msi file instead of .exe.



Right Click on the "Upgrade Paths" from the left hand Tree View and click "Cancel" button. Rename the node to "Update"

g.



No changes need to be made, everything can be left as default.

Now whenever a new updated is needed, click on the ellipses next to the "Product Code" which will generate a new GUID.

Hello World - Microsoft Visual Studio (Admi	inistrator)		Quick Launch 🔎 🗕 🗖 🗙
FILE EDIT VIEW INSTALLSHIELD LE PR	OJECT BUILD DEBUG TEAM SQL FORMAT TOOLS TEST RESHARPER ANALYZE WINDOW HELP		
○ · ○ 管 · 當 当 말 ヴ · ペ ·	🕨 Attach 👻 Debug 👻 🔎 💭 🗛 🖓 🔛 💣 Options 💷 🚽 👘 🖓 👘 🖉 🕹	A 🖷 🗏 :	* 🛗 🚽
ର୍ଜ୍ଧ General Information (HelloWorldSetup) + ୨	Upgrade Paths (HelloWorldSetup) Releases (HelloWorldSetup) Project Assistant (HelloWorldSetup) Files (HelloWorldSetup) =	Solution Explorer 🗸 🖣 🗙
			G G G - # A G
Product Name	Hello World Setup		Search Solution Explorer (Ctrl+;)
Product Version	1.00.0000		Solution 'Hello World' (3 projects)
8 Product Code	{A6682B36-1A87-44C1-8082-0FA353CBAD80}	<i>{}</i>	C* ConfigFileCreator
Upgrade Code	{BA96BF7E-D26F-48BB-B2C7-6C9013AFE973}		Image: A constraint of the second
Setup Language	English (United States)		HelloWorldSetup
INSTALLDIR	[AppDataFolder]Hello World		 Getting Started
Locked-Down Permissions	Custom InstallShield handling		✓ Project Assistant
DATABASEDIR	[INSTALLDIR]Database		Microsoft App-V Assistant
Default Font	Tahoma; 8pt		Organize Your Setup
ALLUSERS	ALLUSERS=1 (Per-machine installation)		General Information
Create MSI Logs	No		Setup Design
Fast Install	No system restore point is saved for this installation Perform only File Costing and skip checking other costs Reduce the frequency of progress messages		a Features
Summary Information Stream			✓ Upgrade Paths
Title	Installation Database		Vpdate Notifications
Subject	Hello World Setup		 G Specify Application Data
Author	Travelport		✓☐ ² Files
Keywords	Installer,MSI,Database		- Classic Classic
Summary Information Stream Comments	Contact: Your local administrator		Solution Explorer Team Explorer Class view
Schema	200		Properties • # X
Require Administrative Privileges	Yes		
Add or Remove Programs			
Show Add or Remove Programs Entry	Yes		BE 24 A
Display Icon	<isproductfolder>/redist/Language Independent/OS Independent/setupicon.ico</isproductfolder>		
Disable Change Button	No		
Disable Remove Button	No		
Disable Repair Button	No		
Publisher	Travelport		
Publisher/Product URL	http://www.Travelport.com		
Support Contact	Example: Product Support Department	-	
Product Code			
Enter a GUID that uniquely identifies this produc	t. To have InstallShield cenerate a different GUID for you, dick the Generate a new GUID button (()) in this setting,		
Since this code uniquely identifies your product	dependent the preduct ender offer you have already distributed your releases is not recommended		
For more information, see Setting the Product C	inda ging product code arter you have already distributed you release is not recommended.	-	
Error List			
Dest			
Ready			

h. Installation of the Smartpoint Config File



Right Click on "After Register Product"

- Select "Installed with the Product" from the "Source Location" dropdown
- Click on the "File Name" and double click on the folder names (AppDataFolder-> Hello World) until you navigate to "Danial.Utility.Primary output"
- Pass: /config /c /folder:"Hello World" /file:"HelloWorld.xml"
- This will create the config in the locaton: %appdata%Hello World/HelloWorld.xml

i. Deleting Plugin Cache

Smartpoint caches the list of Plugin so it does not have to go through the process of loading all available plugin. If this plugin cache is not deleted any new Plugin will not be loaded. This cache can be deleted manually by typing #DELETEPLUGINCACHE or deleting the cache file. We will use custom action to delete the cache file.

It is important that Smartpoint is not running when the installation is in progress. Otherwise the cache file may be re-created by Smartpoint.



- Select "Installed with the Product" from the "Source Location" dropdown
- Click on the "File Name" and double click on the folder names (AppDataFolder-> Hello World) until you navigate to "Danial.Utility.Primary output"
- Pass: /cache /d as the "Command Line" arguments

j. Launch Condition (Making sure Travelport Smartpoint is installed)



Right Click on the "System Software Requirements" and choose "Create New Launch Condition".

System Search Wizard
What do you want to find?
Choose the item you want to search by from the list below:
Description Choose this item to search the target computer for a specific folder in a specific folder. For example, you can search for "MySetups" in the [ProgramFilesFolder]My Company folder.
< <u>B</u> ack <u>N</u> ext > Cancel Help

Select Next to bring up the Dialog below.

Choose "Folder path, by searching in a specific folder" and click Next

rstem Search How do ye	n Wizard
<u>Folder Na</u>	me:
Smartpo	int
⊂ <u>L</u> ook In ⊚	: A full gath [ProgramFilesFolder]Travelport Browse
Ô	A path found in a previous search
Number o	of subfolder <u>l</u> evels to search:
	< <u>Back</u> <u>N</u> ext > Cancel Help

Type "Smartpoint" in the "Folder Name" textbox and choose "[ProgramFilesFolder]Travelport as the Path.

System Search Wizard
What do you want to do with the value?
Your installation will be allowed to proceed if the search you created is: <u>Found</u> <u>Not Found</u> Enter the text you wish to display to the user, when the installtion is balted because the
above condition is not met: Travelport Smartpoint is not installed on your PC. Please install Smartpoint first.
< <u>B</u> ack Finish Cancel Help

Select "Found" radio button and type in an appropriate error message and click Finish. In this case we will halt the Setup as the user does not have Travelport Smartpoint installed.

k. Completion

Now build the solution and click on the setup project and choose "Open Release Folder" button from the toolbar.



You should have the output as below. Make sure data1.cab only contains the two files (or more if you added other) and does not contain all referenced assemblies starting with "Travelport." Or "Smartpoint."

						x
🕞 🕤 🔻 Hello World 🕨 HelloWorld	Setup ▶ HelloWorldSetup ▶ Express ▶ DVD-5	DiskImages DiskI	. •	✓ 4 Search Disk1		٩
Organize 🔻 Include in library 👻 Sha	re with 🔻 🛛 Burn 🛛 New folder				:= -	0
★ Favorites	Name	Date modified	Туре	Size		
🧮 Desktop	💓 0x0409.ini	23/03/2010 16:44	Configuration sett	22 KB		
🐌 Downloads	🛅 Data1.cab	21/04/2015 11:08	Cabinet File	11 KB		
🕮 Recent Places	😼 Hello World Setup.msi	21/04/2015 11:08	Windows Installer	508 KB		
MyFiles	setup.exe	21/04/2015 11:08	Application	1,188 KB		
💱 Dropbox	Setup.ini	21/04/2015 11:08	Configuration sett	5 KB		
 □ Libraries □ Documents □ Music □ Pictures □ Videos !■ Computer 2 Windows (C:) S Network 						
n Eitoma						
o items						

The setup is now complete and can be tested by clicking "setup.exe" or the .msi file.

APPENDIX

```
a. Code for Program.cs
namespace Danial.Utility
{
    class Program
    {
        static void Main(string[] args)
        {
            ParseArgs(args);
        }
        private static void ParseArgs(string[] args)
            switch (args[0].ToLower())
            {
                case "/config":
                    ExecuteConfig(args);
                    break;
                case "/sp":
                    ExecuteSmartPoint(args);
                    break;
                case "/cache":
                    ExecuteCache(args);
                    break;
            }
        }
        private static void ExecuteCache(string[] args)
        ł
            SmartpointHelper helper = new SmartpointHelper();
            helper.DeletePluginCache();
        }
        private static void ExecuteConfig(string[] args)
        ł
            ConfigHelper helper = new ConfigHelper();
            if (args[1].ToLower() == "/c")
            {
                string folderName = GetValue("folder", args);
                string fileName = GetValue("file", args);
                helper.CreateConfigFile(folderName, fileName);
            }
            else if (args[1].ToLower() == "/del")
            {
                string fileName = GetValue("file", args);
                helper.DeleteConfigFile(fileName);
            }
        }
        private static string GetValue(string key, string[] args)
        ł
            string value = string.Empty;
            foreach (string s in args)
            {
                if (s.ToLower().Contains("/" + key))
                {
                    value = s.Substring(s.IndexOf(":") + 1);
                    break;
                }
            }
            return value;
        }
   }
}
```

```
b. Code for SmartpointHelper.cs
```

```
using System;
using System.Collections.Generic;
using System.Diagnostics;
using System.IO;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using Microsoft.Win32;
namespace Danial.Utility
{
    public class SmartpointHelper
    {
        public bool DeletePluginCache()
        {
             bool deleted = false;
             string appDataFolder =
Environment.GetFolderPath(Environment.SpecialFolder.ApplicationData);
             string fullPath = string.Format("{0}\\Travelport\\Smartpoint\\CachedPlugins.xml",
appDataFolder);
             try
             {
                 if (File.Exists(fullPath))
                 {
                     File.Delete(fullPath);
                     deleted = true;
                 }
             }
             catch (Exception e)
             {
             }
             return deleted;
        }
    }
}
```

c. Code for ConfigHelper.cs

```
using System;
using System.Collections.Generic;
using System.IO;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
namespace Danial.Utility
{
    public class ConfigHelper
    {
        public void CreateConfigFile(string folderName, string fileName)
         {
             string appDataFolder =
Environment.GetFolderPath(Environment.SpecialFolder.ApplicationData);
             string folderPath = string.Format("{0}\\Travelport\\Smartpoint\\PluginLocations",
appDataFolder);
             string content = string.Format(ConstructXML(), appDataFolder + "\\" + folderName);
             using (StreamWriter sw = new StreamWriter(folderPath + "\\" + fileName))
             {
                 sw.WriteLine(content);
             }
        }
         public void DeleteConfigFile(string fileName)
             string appDataFolder =
Environment.GetFolderPath(Environment.SpecialFolder.ApplicationData);
             string folderPath = string.Format("{0}\\Travelport\\Smartpoint\\PluginLocations\\{1}",
appDataFolder, fileName);
             if (File.Exists(folderPath))
                 File.Delete(folderPath);
        }
        private string ConstructXML()
         {
             StringBuilder sbXML = new StringBuilder();
             sbXML.AppendLine("<?xml version=\"1.0\" encoding=\"utf-8\" ?>");
sbXML.AppendLine("<root>");
sbXML.AppendLine("<folder relative=\"false\">{0}</folder>");
             sbXML.AppendLine("</root>");
             return sbXML.ToString();
        }
    }
}
```