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SharePoint 2013 Workflow using VS 2012

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SHAREPOINT **SATURDAY**
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About Me



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Agenda



SP2013 Workflow
Architecture

Workflow Manager

SharePoint
Designer
Workflow

DEMO

Visual
Studio
Workflow

DEMO

Guidance

QA

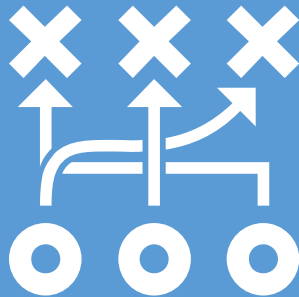


Workflow Architecture

What's New

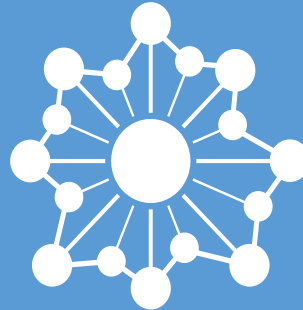


Expressive



Do more with SharePoint Designer and declarative workflow

Connected



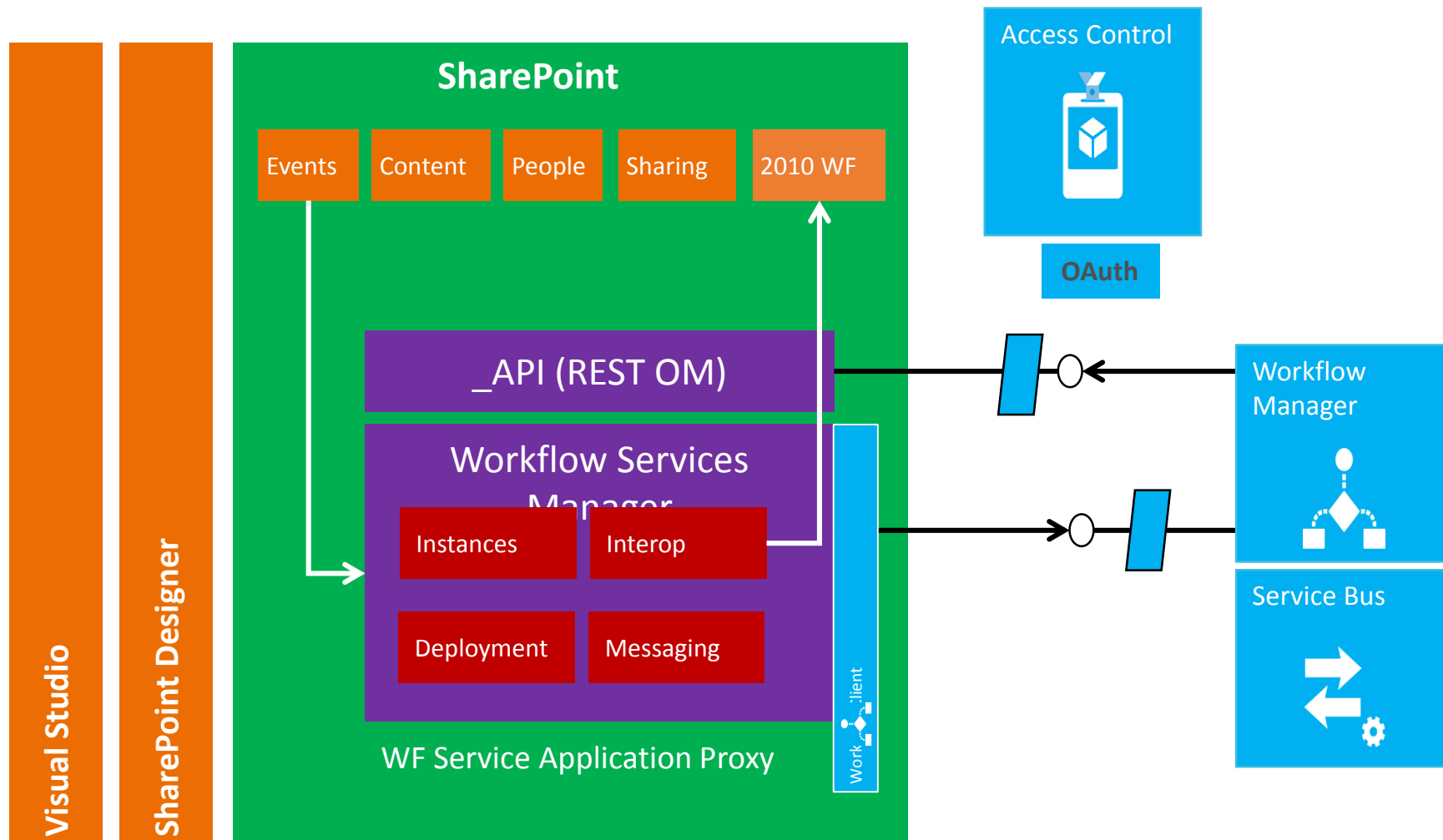
Cloud-ready workflow that fully integrates with the new SharePoint app model

Unbounded

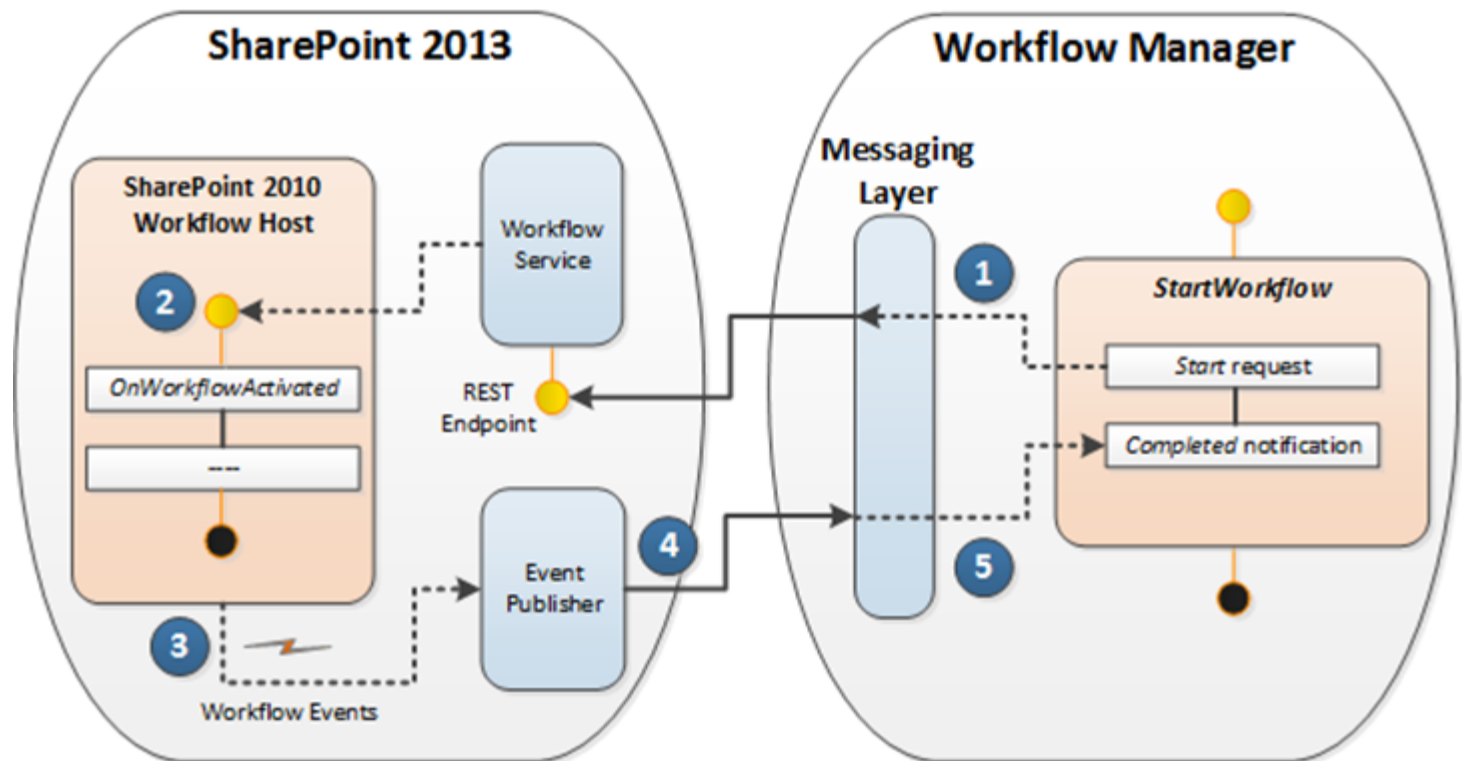


Run on newest workflow hosting technology for better scale and management of workflow processing

Architecture



Workflow Interop





Workflow Manager

Pre-requisite



- .NET Framework 4 Platform Update 3 or .NET Framework 4.5
 - Service Bus 1.0
 - Workflow Client 1.0
 - PowerShell 3.0
-
- The following additional requirements must be met
 - Instance of SQL Server 2008 R2 SP1, SQL Server Express 2008 R2 SP1, or SQL Server 2012.
 - TCP/IP connections or named pipes must be configured in SQL Server.
 - Windows Firewall must be enabled.
 - Ports 12290 and 12291 must be available.



- Windows Server 2008 R2 SP1 x64
- Windows Server 2012 x64

Note: Windows 7 SP1 x64 and Windows 8 x64 are not supported for production purposes. You can install Workflow Manager 1.0 on them for development purposes.

- SQL Server 2012
- SQL Server 2008 R2 SP1 Express
- SQL Server 2008 R2 SP1
- SQL Server 2012 Express
- SQL Database

WORKFLOW MANAGER CONFIGURATION WIZARD

Welcome

This wizard helps you configure a Workflow Manager farm. The wizard also configures the Service Bus farm required by the Workflow Manager farm.

**Configure Workflow Manager with Default Settings (Recommended)**

Apply default configuration settings and configure Workflow Manager on the machine. A Workflow Manager farm will be created and you can join other computers to the farm later.

**Configure Workflow Manager with Custom Settings**

Override default configuration settings to configure Workflow Manager on the machine. A Workflow Manager farm will be created and you can join other computers to the farm later.

**Join an Existing Workflow Manager Farm**

Choose this option to add this computer to existing Workflow Manager farm and Service Bus farm.



Performing configuration operations simultaneously from multiple computers or configuration wizards is not supported.

New Farm Configuration

Provide mandatory configuration parameters that are required for creating databases and run services in the Workflow Manager farm. The same configuration will be used for the Service Bus farm.

Configure Farm Databases

SQL SERVER INSTANCE

Test Connection

▼ Advanced Options

Configure Service Account

User account under which the services will run (RunAs Account) using the format 'domain\user' or 'user@domain'. Credentials for the same account are required every time you join a computer to the farm.

USER ID

PASSWORD

☐ Allow Workflow management over HTTP on this computer

☒ Enable firewall rules on this computer

Certificate Generation Key

This key is required every time you join a computer to the farm.

CONFIRM CERTIFICATE GENERATION KEY



WORKFLOW MANAGER CONFIGURATION WIZARD

Configuration progress

Applying configuration. This may take up to 10 minutes to complete.

Create a new Service Bus farm.



Create a new Workflow Manager farm.



Add host to Service Bus farm.



Create Service Bus service namespace.



Get Service Bus client configuration.



Add host to Workflow Manager farm.



Configuration operation successful.



Details:

[\(View Log\)](#)

Processing completed



Installing and pairing



Available via Web Platform Installer or Download Center

- Workflow Manager 1.0
- Workflow Manager Client 1.0

Pairing PowerShell Command

- Farm Scoped
- Requires Workflow Manager Client on SharePoint machine

```
Administrator: SharePoint 2013 Management Shell

Register-SPWorkflowService -SPSite "https://{rootUrl}"
-WorkflowHostUri "https://{WfsvcVipDnName}:12290"
```

Uninstall or change a program

To uninstall a program, select it from the list and then click Uninstall, Change, or Repair.

Organize ▾ Uninstall Change Repair			
Name ▲	Publisher	Install...	Size
Workflow Manager 1.0	Microsoft Corporation	10/2/2012	10.6 MB
Workflow Manager Client 1.0	Microsoft Corporation	10/2/2012	715 KB

Strictly for developer and trial environments, it is possible to configure without SSL in SharePoint (not default)

Switch: -AllowOAuthHttp

Workflow Manager HTTP port: 12291



Topic




SharePoint Designer Workflows

Two workflow platform



Create List Workflow - Documents

 Add a new workflow to your list

Enter a name and description for your new workflow

Name:

Description:

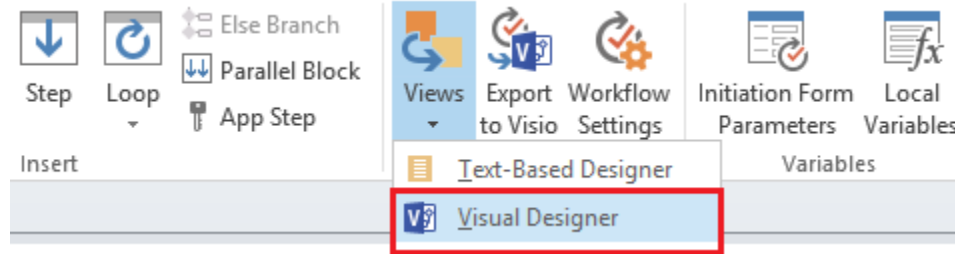
Choose the platform to build your workflow on

Platform Type:

- SharePoint 2010 Workflow
- SharePoint 2013 Workflow

OK Cancel

Visual Designer



The screenshot displays the SharePoint Designer interface for a workflow named 'DemoWorkflow'. The 'Visual Designer' tab is active, showing a sequence of tasks within a 'Stage: Create Item Stage'. The tasks are: 'Create list item', 'Log to history list', and 'Send an email'. The interface includes a 'FILE' ribbon with 'Save', 'Publish', and 'Check for Errors' options. A 'Navigation' pane on the left shows the workflow structure. The status bar at the bottom indicates 'Page-1' and 'All'.

Navigation

Stage: Create Item Stage

Create list item

Log to history list

Send an email

Page-1 All

ZOOM: 75%

Different Stages



Stage: Stage 1

Log [message](#) to the workflow history list

Transition to stage

If [value](#) equals [value](#)

Go to [Stage 2](#)

Else

Go to [Stage 3](#)

Stage: Stage 2

(Start typing or use the Insert group on the Ribbon.)

Transition to stage

(Insert go-to actions with conditions for transitioning to the stage)

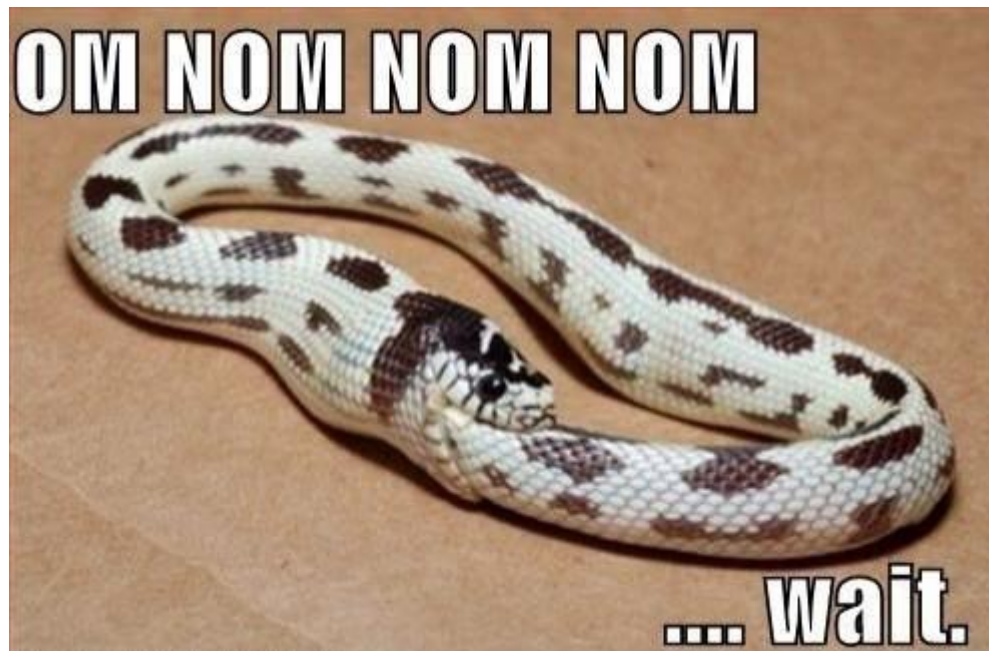
Stage: Stage 3

(Start typing or use the Insert group on the Ribbon.)

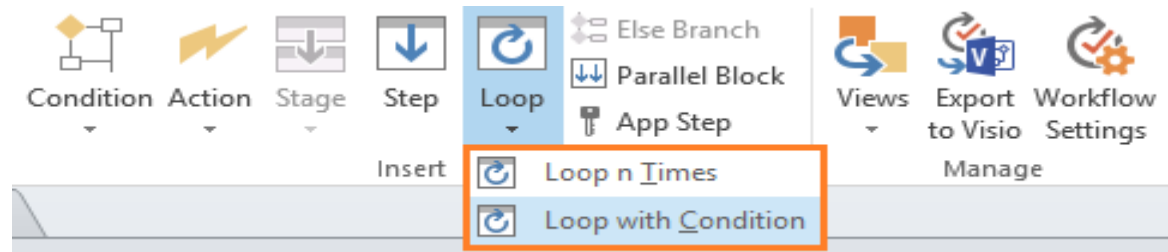
Transition to stage

(Insert go-to actions with conditions for transitioning to the stage)

LOOPS



LOOPS



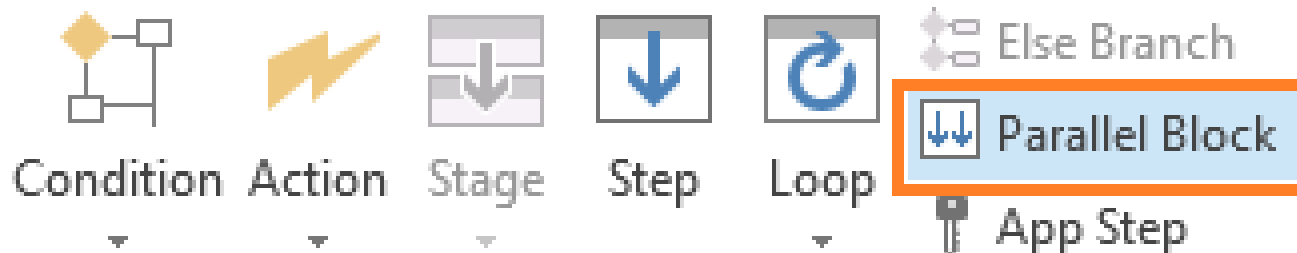
Loop: 1

The contents of this loop will run 1 times

Loop: 2

The contents of this loop will run repeatedly while: value equals value

Parallel Block



Insert

The following actions will run in parallel:

Log [message](#) to the workflow history list

and Comment: [comment text](#)

and Calculate [value](#) plus [value](#) (Output to [Variable: calc](#))

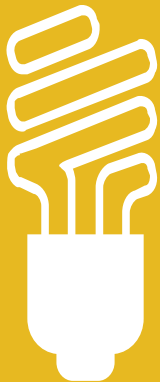
List goes on



- Dictionary
- App Step
- Call HTTP Web Services
- New Actions
- Task Forms
- Designer support
Cut/Copy/Paste/Undo/Redo/Select All



Demo



SPD 2013 Experience



Topic

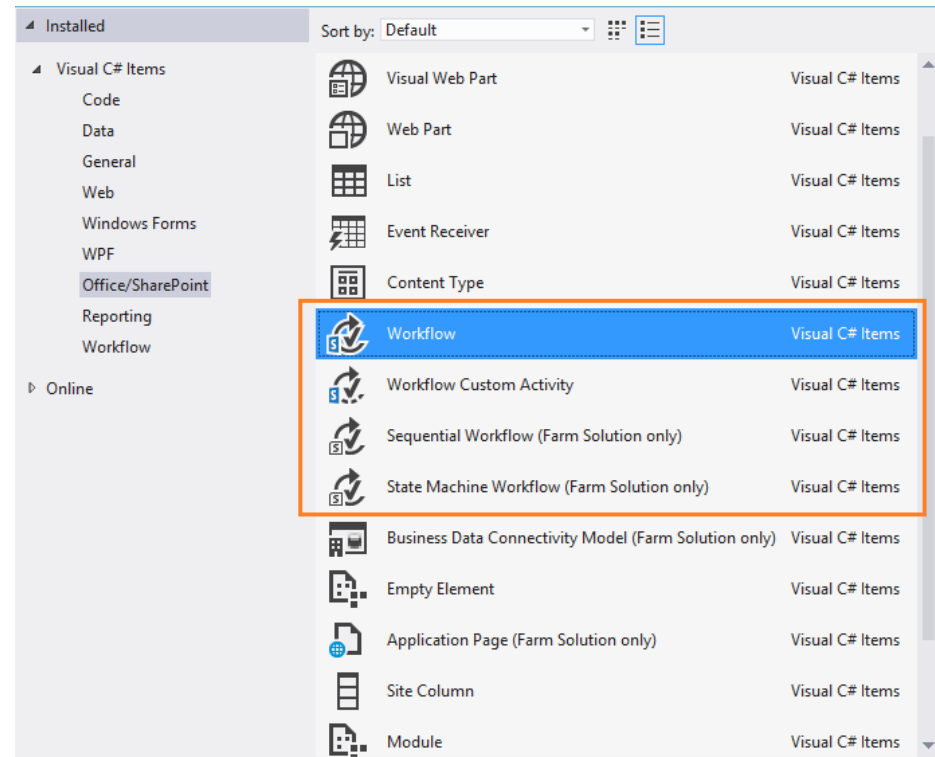


Visual Studio Workflows

Two workflow platform



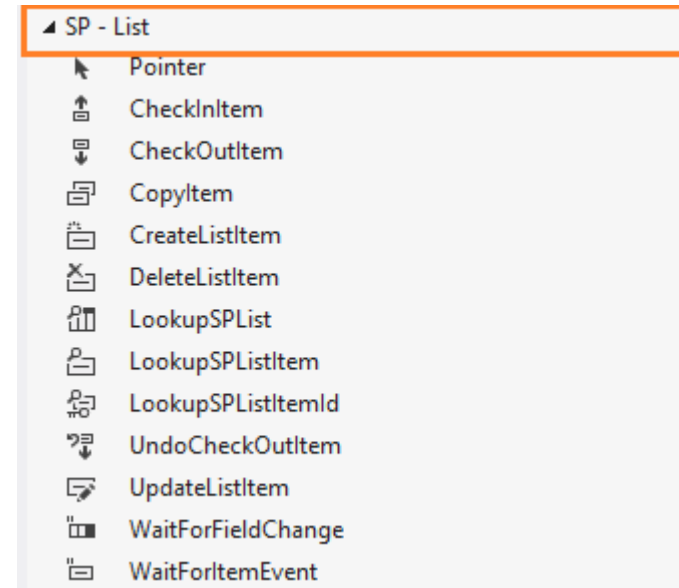
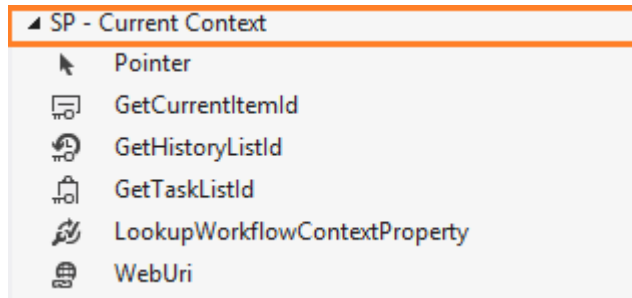
- No Code
- no longer compiled into managed assemblies
- XAML files define your workflows



New workflow actions



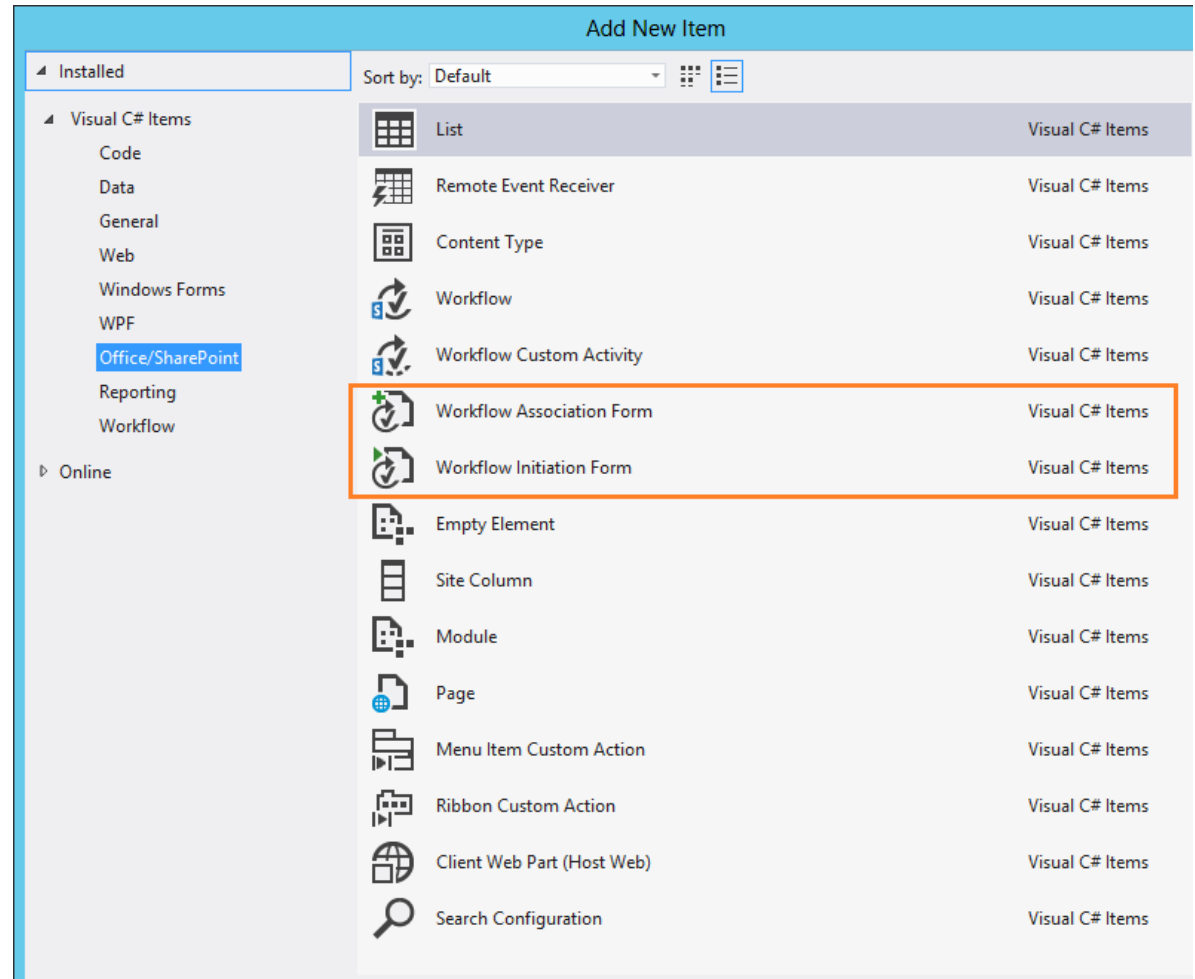
- For custom code you can call HTTP Web Service
- Example: Call an external web service
- <http://code.msdn.microsoft.com/office/SharePoint-2013-workflow-48ea87d4>



Workflow forms



- Association Forms
- Initiation Forms
- Task Forms



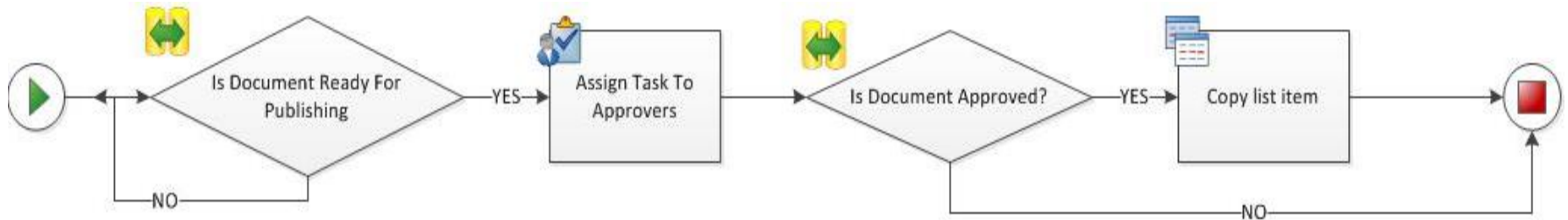


- Use Windows PowerShell cmdlets to manage workflow

Cmdlet name	Description
<code>Get-SPWorkflowConfig</code>	Returns workflow settings for the specified Web application.
<code>Set-SPWorkflowConfig</code>	Configures the workflow settings for the specified Web application.
<code>Get-SPDesignerSettings</code>	Displays SharePoint Designer 2013 features.
<code>Set-SPDesignerSettings</code>	Sets SharePoint Designer 2013 features.
<code>Register-SPWorkflowService</code>	Configures the SharePoint host to use a workflow service.



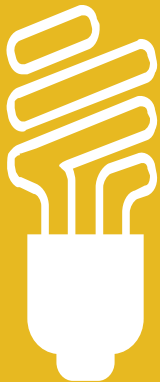
- Scenario: Document Publishing



Lists: **Draft Documents**
 Published Documents



Demo



VS 2012 Experience



Guidance

SPD vs. Visual Studio



Feature / Requirement	SharePoint Designer	Visual Studio
Allows rapid workflow development	Yes	Yes
Reuse of workflows	Reusable (or Globally Reusable) workflow	Workflows are written as a Template
Included as an APP	No	Yes
Create custom actions	No (can consume and implement custom actions that are created and deployed by using Visual Studio.)	Yes
Allows you to write custom code	NO	No
Visio Integration	Yes	No
Debugging	No	Yes

SP2013 WF vs. SP2010 WF



SharePoint 2010 Workflow

- Based on WWF 3.5
- SP 2010 Activities only when building WF

SharePoint 2013 Workflow

- - Recommended for new development
- - Based on WWF 4.5
- - SP 2010 Activities only when building WF
- - On-Prem and Hosted
- - Deployed as .WSP or .APP

Remember to fill out your evaluation forms to win some great prizes!

&

Join us for SharePint today!

Date & Time: Nov 23rd, 2013 @6:00 pm

Location: The Observatory Pub,
Algonquin Student's Association

Address: A-170 on Algonquin Campus

Parking: No need to move your car!*

Site: <http://www.algonquinsa.com/ob.aspx>



Q & A



Thank You