Managing (O365) with PowerShell + CSOM
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HELLO!
My name is

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Session Objective

- Understand how to automate different SharePoint Online (Office 365) tasks using PowerShell and CSOM
- This session is for Developers
- And IT Pro as well

......May be NOT 😊
History Lesson

Amit’s PowerShell + CSOM Journey
“FTC to CAM – Stop creating content types and site columns declaratively”

Typical CT deployment process
How do we overcome - On Premises

- Content Types and Site Columns - Created directly to Content DB - No dependency on Element XML file(s)
What are the challenges with O365

- Guidance to not use declarative code for CT
- You cannot use custom code in Sandbox solution.
- Farm solutions are out of question.
Remote Provisioning to Rescue
Remote Provisioning

- Write C# CSOM/REST Provider hosted App
- JSOM
- PowerShell + CSOM
Remote Provisioning Process – CSOM/REST

1. SharePoint Farm

2. Provider Hosted Apps

3. Own app specific configuration

4. CSOM / REST
CSOM – Power Talk
Remote Provisioning

- Client side library for remotely communicating with SharePoint
- Introduced in SharePoint 2010
- Expanded upon in SharePoint 2013
CSOM in SharePoint 2010
CSOM in SharePoint 2013
How CSOM Works

1. Find lists
2. Execute list queries
3. Get results
4. Use results

Client Object Model

Request batching

Server Object Model

Find lists
Execute list queries
Get results
CSOM – Code Example

- Create Context

ClientContext ctx = new ClientContext("http://intranet.contoso.com");

- Call Load and ExecuteQuery Before Accessing Value Properties

    Web web = ctx.Web;
    ctx.Load(web);
    ctx.ExecuteQuery();
    Console.WriteLine(web.Title);
How do I start
Steps to start developing

- Pick your Development environment
  - Local Machine
  - SharePoint 2013 Environment
Local Machine

- Required copy of all SharePoint Client DLL
  - Located at C:\Program Files\Common Files\microsoft shared\Web Server Extensions\15\ISAPI
- All DLLs that starts with Microsoft.SharePoint.Client
  - Reference them in your code from the location you copied them
SharePoint Environment

- No need to do anything other than referencing DLLs from ISAPI folder.
Optional – Download CSOM Assemblies

PnP Nuget CSOM Demo - Manage NuGet Packages

Installed packages

Online

All
- nuget.org
- Microsoft and .NET
- Search Results

Updates

Stable Only - Sort by: Relevance

Microsoft.SharePointOnline.CSOM

Created by: Microsoft
Id: Microsoft.SharePointOnline.CSOM
Version: 16.1.3912.1204
Last Published: 4/9/2015
Downloads: 10

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Description:
This package contains the SharePoint Online Client Side Object Model libraries

Tags: Microsoft Office API SharePoint Client Object Model CSOM Portable Windows8 WindowsPhone8 Windows

Dependencies:
No Dependencies
DEMO
PowerShell + CSOM
Summary
Why PowerShell + CSOM

➢ Anything you can do with CSOM can be achieved using PowerShell + CSOM

➢ Great way to extend PowerShell capabilities

➢ Can be used with SharePoint Online and On-premises

➢ Spend time understanding CSOM

➢ Microsoft.SharePoint.Client namespace
Resources

- https://sharepointpowershell.codeplex.com/
- https://sharepointonlineautomationcmdlets.codeplex.com/
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RENCORE
VisualSP
Thank you!

Toronto Enterprise Collaboration User Group
Change Management, Governance, SharePoint, Office 365, Yammer, PowerBI, etc
http://www.meetup.com/TSPBUG/

Toronto SharePoint Business Users Group
http://www.meetup.com/TorontoSPUG/

See you next year!
http://spbuzz.it/spsto2015-evals
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