**SCCM Apps: Best Practices**

1. **Overview of Deploying SCCM Applications**
	1. When you create an application, files from the source folder are uploaded to the selected distribution points.
	2. When a client recognizes it needs an application, it first downloads the files to the local computer in a named folder inside the C:\Windows\ccmcache folder.
	3. SCCM then checks the detection clause to see if the clause is true or false. If true, SCCM will not install the application. If false, SCCM starts to run the install command specifically running as user system.
	4. At the end of installation, SCCM checks detection clause again to see if clause is now true. If true, SCCM will report that installation was successful. If false, SCCM will report installation has failed.
2. **How to Successfully Create an SCCM Application**
	1. Run the software manually on your computer or test computer
	2. Run the software manually via command prompt with installation commands
	3. Open the software to see if it works, licensed activated, etc.
	4. Copy the software to your application share for SCCM to see the files
	5. Create application in SCCM and then deploy it to a test box or group as an available application
	6. Login to test computer and have both software center and the task manager open to watch the installation of the software.
	7. Once installed, open the software to see if it works, licensed activated, etc.
	8. Once testing is successful, setup deployments for non-testing machines. (Best practices is set installation during maintenance windows)
3. **Maintenance Windows**
	1. Sets Times per collection for when application deployments will be installed.
	2. Can be a daily or weekly time
	3. Set by UTC Time only (Will have to convert from CST to UST)
	4. Best Practice is to set your deployments to run during your maintenance windows
	5. You can set Maintenance Windows by right clicking on a collection ->properties ->Maintenance Windows tab to add a new one.
4. **Tips**
	1. DO NOT deploy any application to your master device collection. Create a new collection with a wider scope than normal if you need to deploy to all Windows 7 or 8 devices.
	2. DO NOT try and convert an executable or any other file type to an msi.
	3. Some executables will actually extract and run an msi or another executable, which you can grab to use in SCCM. Extracted files are usually stored in the C:\Users\%profile%\AppData\Local\Temp while the executable is running.
	4. You can find the install and uninstall commands of most programs once it is installed manually through the registry (see additional documentation)
	5. When putting in locations for files into SCCM, always use full DNS name of the server (ex:cobitdata.ad.ilstu.edu\cobinstalls$\)
	6. When setting up your Application Share, it is best to arrange it by Product and Version Number (ex: Adobe Flash Player is in Adobe->Flash Player->Version #)
	7. Use only programs when you need to run a batch files or tasks only once (Applications will be used 99% of the time when deploying software.)
5. **Command installation commands for installation types:**
	1. **MSI**
		1. /i: installs the specified MSI file
		2. /qn: sets the MSI install in quiet mode with no UI interface
		3. /x: uninstalls the specified MSI file
		4. /? Or /help: give you a list of all basic MSI commands (does not included msi specific commands)
		5. Install Command Example: msiexec /i name.msi /qn
		6. Uninstall Command Example: msiexec /x name.msi /qn
	2. **Install Shield Executable**
		1. -s: sets the exe install in quiet mode
		2. -r: creates a response file called setup.iss that is stored in C:\Windows
		3. -f1: allows you to specify the location of a response file
		4. -? Or -help: gives you a list of all basic exe commands for that exe (the commands may differ from exe to exe, depending on who made it)
		5. Install Command Example: setup.exe -s -f1"C:\temp\setup.iss"
	3. **Batch Files**
		1. %~dp0 – Will run the command from wherever the batch file is located
		2. Example: setup.exe -s -f1"%~dp0setup.iss" or cd %~dp0
		3. Install Command Example: Name.bat
6. **Basic Steps to Creating an Application**
	1. Software Library ->Applications(Right Click)->Create Application
	2. If MSI, type in location of MSI and click next. (Skip rest of steps) If any other type, click *manually specify the application information* and click next.
	3. Type in name, publisher, and software version. Click *next*.
	4. Change local application name and put in short description.
	5. Click *add* to add a new deployment type.
	6. Choose *script installer* and click next.
	7. Type in name of deployment type and click *next*.
	8. Type in the content location of the installation files, then put in the install command for installation as well as the uninstall command for uninstallations. Click *next*
	9. Add Application Detection Method (Look under Additional Details for more information) Click *next*.
	10. Specify whether the program is installed per user or per device and set program visibility to hidden. Click *next*.
	11. Specify the installation requirements (Always set some requirements, OS type works best in most situations.) Click next
	12. Specify the installation dependencies. Click next.
	13. Click *next* to close and create the application.
7. **Additional Documentation**
	1. Overview of Application Detection:

 <https://oat.sharepoint.illinoisstate.edu/sccm/SitePages/Home.aspx> -> Shared Departmental Documentation-> COB -> Overview of Application Detection

* 1. COB Application and Collections Spreadsheet: <https://oat.sharepoint.illinoisstate.edu/sccm/SitePages/Home.aspx> -> Shared Departmental Documentation-> COB -> COB SCCM Applications And Collections
	2. Creating Device Collections in SCCM:

<https://oat.sharepoint.illinoisstate.edu/sccm/SitePages/Home.aspx> -> Shared Departmental Documentation-> COB -> Creating Device Collections in SCCM