

MDT 2012 Update 1 version of the Hydration Kit

Since MDT 2010 Update 1 will not work correctly on Windows 8 and Windows Server 2012 we are developing a MDT 2012 Update 1 version of the hydration kit that does support Windows 8 and Windows Server 2012 as your Hyper-V or VMware Workstation host.

The Base Servers

Using the hydration kit, you will build the below list of servers. The server setups for the New York site will be fully automated. The servers in the Stockholm site will only be deployed half-way since we need to verify things such as network connectivity between the sites before doing the final configuration.

New York Site Servers (192.168.1.0/24)

- DC01, Domain Controller, DNS, and DHCP
- DC02, Domain Controller, and DNS
- CM01, WDS, IIS, SQL 2008 R2, and ConfigMgr 2007 (Primary Site Server)
- MDT01, File Server, WSUS (MDT 2010 Lite Touch Server)
- FS01, File Server

Stockholm Site Servers (192.168.2.0/24)

- DC03, Domain Controller, DNS, and DHCP
- CM02, ConfigMgr 2007 (Secondary Site Server)

Real World Note: If you only want a smaller lab and test environment to learn about ConfigMgr 2007, you can start out by deploying only DC01 and CM01. You might add MDT01 if you want a dedicated server for planning, preparing your deployments, and generating reference images using MDT 2010 Lite Touch.

The Base Clients

In addition to the servers, you also use a few clients throughout the book guides. Using the hydration kit, you build the following list of clients. The hydration kit clients are assigned to the New York site. We decided not to have any ready-made clients in the Stockholm secondary site, but you rather will need to deploy new clients to the secondary site if you choose to do use the secondary site.

New York Site Clients (192.168.1.0/24)

- PC0001, Windows XP Pro SP3 x86
- PC0002, Windows 7 Enterprise SP1 x64
- PC0003, Windows XP Pro SP3 x86
- PC0004, Windows XP Pro SP3 x86

Setting Up the Hydration Environment

Hydration is the concept of using MDT 2012 Lite Touch offline media to do fully automated builds of entire lab, proof-of-concept, or production environments. To enable you to quickly set up the servers and clients used in this book, we provide you with a hydration kit (part of the book sample files) that will build all the servers and clients.

How Does the Hydration Work?

The hydration kit that you download is just a folder structure and some scripts. The scripts help you create the MDT 2012 Update 1 Lite Touch offline media, and the folder structure is there for you to add your own software and licenses when applicable. You also can use trial versions for the lab software, as well. The overview steps are the following:

- Install MDT 2012 Update 1 and ADK.
- Extract the hydration kit.
- Create a MDT 2012 deployment share using one of the sample scripts.
- Populate the folder structure with your media and license information.
- Create a MDT 2012 offline media deployment share using one of the sample scripts.
- Build the MDT 2012 offline media (big ISO) using one of the sample scripts.
- Create a few virtual machines, boot them on the offline media (ISO), select what servers they should become, and a few hours later you have the base servers setup.

Prepare the Downloads Folder

In the following steps, you need to have access to the book sample files and also the software media listed in the next section. The steps are performed on the machine (client or server) that you use to manage Hyper-V or VMware, which if you are using Hyper-V, also can be the Hyper-V host.

1. On the machine (client or server) that you use to manage Hyper-V or VMware, create the **C:\Downloads** folder.
2. Download the following software:
 - a. ADK
 - b. BGInfo
 - c. ConfigMgr 2007 R3 (trial or full version)
 - d. ConfigMgr 2007 R3 PreReqs (KB 977384)
 - e. ConfigMgr 2007 SP2 (trial or full version)
 - f. ConfigMgr 2007 SP2 PreReqs (for details see step 9 in the following guide)
 - g. ConfigMgr 2007 Toolkit V2
 - h. Office 2010 Pro Plus x86
 - i. MDT 2012 Update 1
 - j. Microsoft NET Framework 4.0
 - k. SQL Server 2008 R2 Express
 - l. SQL Server 2008 R2 Enterprise (trial or full version)
 - m. Windows Server 2008 R2 Enterprise SP1 (trial or full version)
 - n. Windows XP Pro SP3 x86 (trial or full version)
 - o. Windows 7 Enterprise SP1 x64 (trial or full version)

Prepare the Hydration Environment

The machine (client or server) that you use to manage Hyper-V or VMware needs to have PowerShell installed, and we assume that you download the book sample files.

Note: MDT 2012 requires local administrator rights/permissions. You need to have at least 40 GB of free disk space on C:\ for the Hydration Kit and at least 300 GB of free space for the volume hosting your virtual machines. Also make sure to run all commands from an elevated command prompt.

Create the hydration deployment share

1. On the Windows machine that you use to manage Hyper-V or VMware, install **ADK** (adksetup.exe), selecting only the following components:
 - a. **Deployment Tools**
 - b. **Windows Preinstallation Environment (Windows PE)**
2. Install **MDT 2012 Update 1** with the default settings.
3. Extract the **MDT 2012 Update 1 version of HydrationDF3.zip** file from the book sample files to C:\.
4. You should now have the following folder containing a few subfolders and PowerShell scripts:

C:\HydrationDF3\Source

5. In an elevated (run as Administrator) PowerShell command prompt, configure Execution Policy in PowerShell by typing the following command:

Set-ExecutionPolicy Unrestricted -Force

6. In the PowerShell command prompt, create the Hydration Deployment Share by running the following command:

C:\HydrationDF3\Source\1_CreateHydrationDeployment.ps1

7. Merge the hydration kit content with the new deployment share by running the following command:

C:\HydrationDF3\Source\2_MergeDeploymentShareWithHydrationKit.ps1

Populate the hydration deployment share with the downloaded files

1. If you are using Microsoft Hyper-V as your virtual platform (skip this step if you don't), copy the content of the C:\Windows\vmguest folder on your Hyper-V host to the following folder:

**C:\HydrationDF3\DS\Applications\
Install - Microsoft Hyper-V Integration Services Application\Source**

2. Extract the ConfigMgr 2007 SP2 installation files to the following folder:

**C:\HydrationDF3\DS\Applications\
Install - ConfigMgr 2007 SP2\Source**

3. Copy the ConfigMgr 2007 R3 installation files to the following folder:

**C:\HydrationDF3\DS\Applications\
Install - ConfigMgr 2007 R3\Source**

4. Copy the ConfigMgr 2007 R3 PreReq file (SCCM2007-SP2-KB977384-ENU.msi) to the following folder:

**C:\HydrationDF3\DS\Applications\
Install - ConfigMgr 2007 R3\PreReqs**

5. Copy the ConfigMgr 2007 Toolkit V2 installation file (ConfigMgrTools.msi) to the following folder:

**C:\HydrationDF3\DS\Applications\
Install - ConfigMgr 2007 Toolkit V2\Source**

6. Copy the Microsoft .NET Framework 4.0 installation file (dotNetFx40_Full_x86_x64.exe) to the following folder:

**C:\HydrationDF3\DS\Applications\
Install - NET FrameWork 4.0\Source**

7. Using **Explorer**, create the **C:\Tmp\PreReqs** folder
8. In a command prompt, run the following commands (press Enter after each):

```
cd /d "C:\HydrationDF3\DS\Applications\  
Install - ConfigMgr 2007 SP2\Source\SMSSETUP\BIN\I386"  
Setup /Download C:\Tmp\PreReqs
```

9. Copy (or move) the content of the **C:\Tmp\PreReqs** folder to the following folder:

**C:\HydrationDF3\DS\Applications\
Install - ConfigMgr 2007 SP2\Source\PreReqs**

10. Using Explorer, navigate to the **C:\HydrationDF3\DS\Applications\
Install - ConfigMgr 2007 SP2\Source\SMSSETUP\BIN\I386** folder and copy the **EXTADSCH.exe** file to the following folder:

**C:\HydrationDF3\DS\Applications\
Configure - Extend AD for ConfigMgr 2007\Source**

11. Copy the **SQL Server 2008 R2** installation files to the following folder:

**C:\HydrationDF3\DS\Applications\
Install - SQL Server 2008 R2\Source**

12. Copy the **SQL Server 2008 R2 Express** installation file (en_sql_server_2008_r2_express_with_management_tools_x64.exe) to the following folder:

**C:\HydrationDF3\DS\Applications\
Install - SQL Server 2008 R2 Express\Source**

13. Extract your **BGInfo** installation files and copy the BGInfo.exe file to the following folder:

C:\HydrationDF3\DS\Applications\Install - BGInfo\Source

14. Extract your **Windows Server 2008 R2 Enterprise SP1** installation files (or mount the ISO using an ISO mounting tool like SlySoft Virtual CloneDrive), and copy them to the following folder:

**C:\HydrationDF3\DS\Operating Systems\
Windows Server 2008 R2 SP1 x64**

15. Extract your **Windows 7 Enterprise SP1 x64** installation files (or mount the ISO using an ISO mounting tool like SlySoft Virtual CloneDrive), and copy them to the following folder:

**C:\HydrationDF3\DS\Operating Systems\
Windows 7 Enterprise SP1 x64**

16. Extract your **Windows XP Pro SP3 x86** installation files (or mount the ISO using an ISO mounting tool like SlySoft Virtual CloneDrive), and copy them to the following folder:

**C:\HydrationDF3\DS\Operating Systems\
Windows XP Pro SP3 x86**

Edit the Product Keys

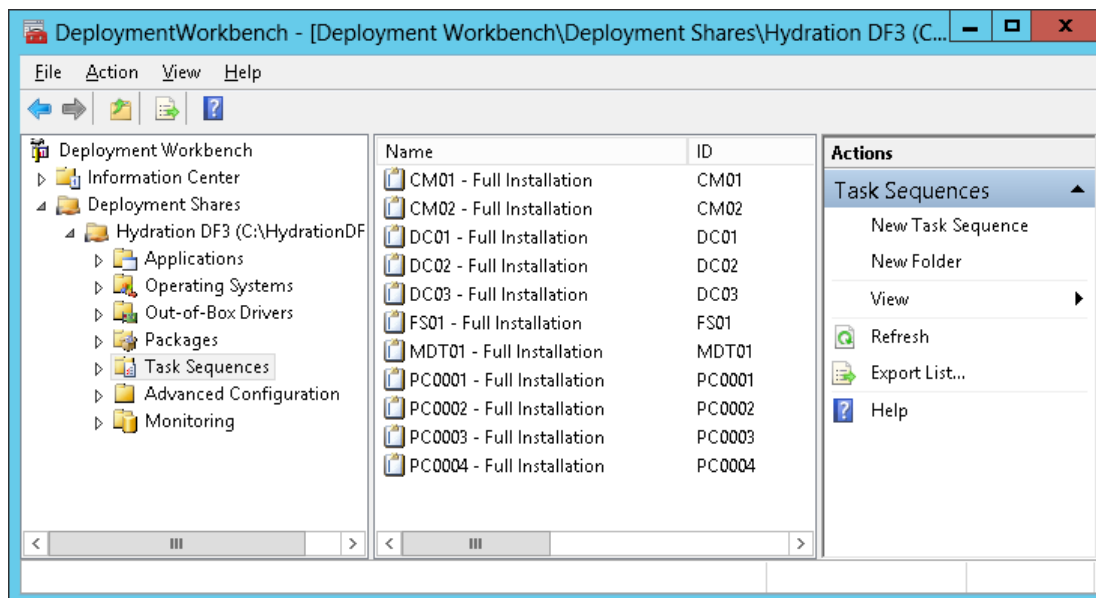
1. Edit the **C:\HydrationDF3\DS\Applications\Install - ConfigMgr 2007 SP2\ConfigMgrUnattend.ini** file, and add the real PID (AAAAA-BBBBBB-CCCCC-DDDDD-EEEEEE is the place holder).

Note: To find out what PID you have, start the ConfigMgr 2007 setup on a server, and a few steps into the setup wizard the PID will be displayed. The setup must be executed on a domain member server; otherwise, you will be able to install only the ConfigMgr Console, and the PID will not be displayed.

2. Edit the **C:\HydrationDF3\ISO\Content\Deploy\Control\CustomSettings_PC0001.ini** file, and add the real Product Key for Windows XP (AAAAA-BBBBBB-CCCCC-DDDDD-EEEEEE is the place holder).
3. Edit the **C:\HydrationDF3\ISO\Content\Deploy\Control\CustomSettings_PC0003.ini** file, and add the real product key for Windows XP (AAAAA-BBBBBB-CCCCC-DDDDD-EEEEEE is the place holder).
4. Edit the **C:\HydrationDF3\ISO\Content\Deploy\Control\CustomSettings_PC0004.ini** file, and add the real product key for Windows XP (AAAAA-BBBBBB-CCCCC-DDDDD-EEEEEE is the place holder).

Create the hydration ISO (MDT 2012 Update offline media item)

1. Using **Deployment Workbench** (available on the start menu), expand **Deployment Shares**, and expand **Hydration DF3**.
2. Review the various nodes. The Applications, Operating Systems and Task Sequences nodes should all have some content in them.

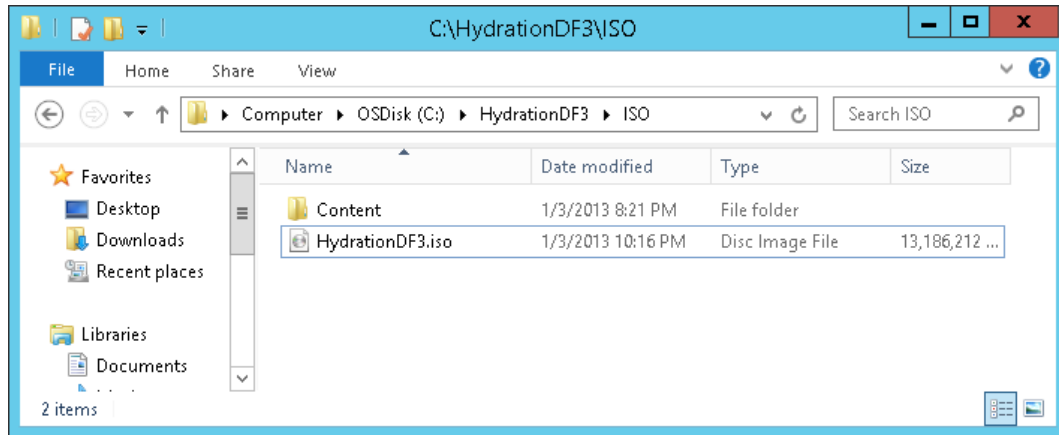


The Hydration deployment share, listing the task sequences.

3. Expand the **Advanced Configuration** node, and then select the **Media** node.
4. In the right pane, right-click the **MEDIA001** item, and select **Update Media Content**.

Note: The media update will take a while to run, a perfect time for a coffee break...

5. After the media update you will have a big ISO (HydrationCM2012SP1.iso) in the C:\HydrationCM2012SP1\ISO folder. The HydrationCM2012SP1.iso should be about 13 GB in size.



The HydrationDF3.iso

Continue in the book

After generating the ISO, you can continue the guide in the book. Start from the “The Virtual Machines for the New York Site” section on page 341.