# Automating Boot Camp and Windows Deployment

#### Joe Hall

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Is dual-booting the right solution?

No!



#### Dual-boot deployment workflows

Windows image

Partition drive

Restore image to Windows partition

Configure Windows installation

Deploy software and configuration



#### Automating dual-boot deployment

Windows deployment

Windows configuration



#### Automating Windows deployment

**Boot Camp** 

**Deploy Studio** 

Winclone



### Automating Windows configuration Unattended Windows setup

System Preparation tool (Sysprep)

Answer file



```
<?xml version="1.0" encoding="utf-8"?>
<unattend xmlns="urn:schemas-microsoft-com:unattend">
   <settings pass="oobeSystem">
        <component name="Microsoft-Windows-International-Core" processorArchitecture="amd64" publicKet</pre>
            <InputLocale>0809:00000809</InputLocale>
            <SystemLocale>en-GB</SystemLocale>
            <UILanguage>en-GB</UILanguage>
            <UserLocale>en-GB</UserLocale>
       </component>
       <component name="Microsoft-Windows-Shell-Setup" processorArchitecture="amd64" publicKeyToken=</pre>
            <00BE>
                <HideEULAPage>true</HideEULAPage>
                <HideLocalAccountScreen>true</HideLocalAccountScreen>
                <HideOEMRegistrationScreen>true</HideOEMRegistrationScreen>
                <HideOnlineAccountScreens>true</HideOnlineAccountScreens>
                <hideWirelessSetupIn00BE>true</hideWirelessSetupIn00BE>
                <ProtectYourPC>3</ProtectYourPC>
            </00BE>
            <UserAccounts>
                <LocalAccounts>
                    <LocalAccount wcm:action="add">
                        <Password>
                            <Value>Hunter2</Value>
                            <PlainText>false</PlainText>
                        </Password>
                        <Description>Sys Admin/Description>
                        <DisplayName>Sys Admin</DisplayName>
                        <Group>Administrators</Group>
                        <Name>sadmin</Name>
                    </LocalAccount>
                </LocalAccounts>
            </UserAccounts>
       </component>
   </settings>
   <settings pass="auditSystem">
        <component name="Microsoft-Windows-PnpCustomizationsNonWinPE" processorArchitecture="amd64"</pre>
            <DriverPaths>
                <PathAndCredentials wcm:action="add" wcm:keyValue="1">
                    <Path>C:\Drivers</Path>
                </PathAndCredentials>
            </DriverPaths>
       </component>
   </settings>
   <cpi:offlineImage cpi:source="wim:c:/users/sadmin/desktop/install.wim#Windows 10 Education" xmlns</pre>
</unattend>
```



### Automating Windows configuration Unattended Windows setup

System Preparation tool (Sysprep)

Answer file

Windows System Image Manager

Windows Assessment and Deployment Kit



Automate Out Of Box Experience (OOBE)

Set locale

Microsoft-Windows-International-Core settings: InputLocale, SystemLocale, UlLanguage, and UserLocale.

Set Computer Name Microsoft-Windows-Shell-Setup | ComputerName

Create a user account
Microsoft-Windows-Shell-Setup | UserAccounts



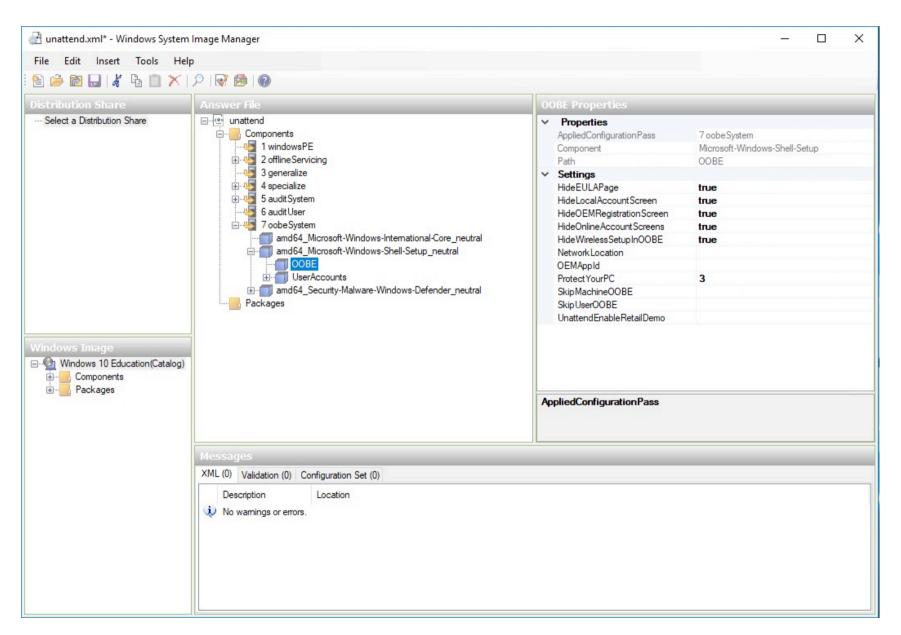
Automate Out Of Box Experience (OOBE)

Skip OOBE screens

Microsoft-Windows-Shell-Setup | OOBE | HideEULAPage, HideOEMRegistrationScreen, HideOnlineAccountScreens, and HideWirelessSetupInOOBE.

Configure Express Settings
Microsoft-Windows-Shell-Setup | OOBE | ProtectYourPC

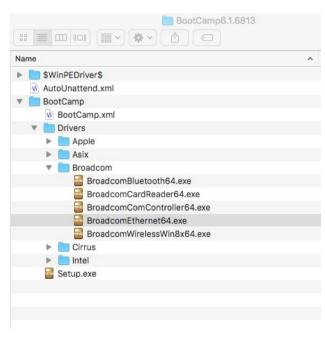






#### Ethernet drivers

Extract from Windows Support Software Boot Camp Assistant > Action > Download Windows Support Software





#### Ethernet drivers

Extract from Windows Support Software

Boot Camp Assistant > Action >

Download Windows Support Software

Add to location on build machine

Add answer file component

Ethernet driver location

Microsoft-Windows-PnpCustomizationsNonWinPE | DriverPaths



Additional components

Add Windows Product Key
Microsoft-Windows-Shell-Setup | ProductKey

Set time zone Microsoft-Windows-Shell-Setup | TimeZone

Bind to Active Directory domain Microsoft-Windows-UnattendedJoin



Validate

Windows Assessment and Deployment Kit

Copy to build machine C:\Windows\System32\Sysprep\unattend.xml

SetupComplete.cmd
C:\Windows\Setup\Scripts\



#### Sysprep

Pre-Sysprep image

Run Sysprep and shutdown
C:\Windows\System32\Sysprep\sysprep.exe
/generalize /oobe /shutdown /unattend:unattend.xml



#### Winclone

Take image of Windows partition

Create installer package

Winclone postflight script
Determines Windows Computer Name
Writes Computer Name to answer file



#### Automating Windows configuration

## Software and configuration deployment

Microsoft SCCM and group policy

PDQ Deploy

Chocolatey

**WPKG** 



## Software and configuration deployment

Windows Support Software ProductVersion in BootCamp/BootCamp.xml

Silent installation msiexec.exe /i \path\to\BootCamp\Drivers\Apple\BootCamp.msi /qn



## Software and configuration deployment

Apple UK Keyboard Keyboard Layout Code - a0000809

Scheduled maintenance window

Set boot drive to macOS
"C:\Program Files\Boot Camp\Bootcamp.exe" -StartupDisk



#### Mac hardware suitability

SSD

Windows 10 only

Microsoft support for Windows 10 Versions 1507 and 1511 no longer supported Version 1607 'tentatively' supported until March 2018



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