

Deploying Office 2007

with ZENworks Configuration Management
Based from a week in Novell's SuperLab

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Introduction

- A week long exercise in Novell's SuperLab used ZCM to migrate a fictitious customer from earlier versions of Office to Office 2007.
- Environment
 - Mixture of Windows XP & Windows Vista desktop Operating Systems
 - 250 end user devices
 - 4 locations linked by 4mb/s WAN
 - Migrated from Office XP Pro & Office 2003 Pro to Office 2007 Professional
- Using the method outlined in this slide deck, a success rate of 97% was achieved

Lessons from the SuperLab

The slide features a solid blue background. In the center, the text "Lessons from the SuperLab" is written in a white, sans-serif font. At the bottom of the slide, there are several horizontal white lines of varying lengths and thicknesses, creating a decorative effect.

General

- Installing Office 2007 is not the same as previous versions
 - Microsoft have made it more complex than before
 - Read all technet articles on Office 2007 deployment
- Create test group of managed devices
 - All different O.S should be represented
 - Remote and local devices
 - Include all versions of Office that will be upgraded
- Use virtual machines for development and initial testing
 - Snapshot before making changes
 - Perform changes
 - Revert to snapshot if necessary.
 - Saves significant amount of time
- Test and test again

ZCM specific

- Use existing audit information to locate old Office versions
- Do not copy and paste from this guide or any other document into ZCC
 - Hidden characters get carried across causing bundle failures
- Use bundle requirements for execution control
 - Stops bundles running where they shouldn't
- If you want Office 2007 install screen to be displayed, run installatio under dynamic administrator not system account
- Build up bundle actions one at a one time, testing as you go
 - Bundles with lots of actions are more time consuming to debug

Challenges & solutions

The slide features a solid blue background. In the lower third, there are several horizontal, glowing white lines that create a sense of motion or depth, resembling a stylized horizon or a modern graphic element.

Challenges and solutions

- Challenge: Office 2007 installation files are 500mb resulting in 500mb x number of managed devices to be transmitted across network
 - Solution: Transmit files to each managed device out of hours before installation commences
- Challenge: Avoid downloading across slow links
 - Solution: Place Satellite services on local servers or existing managed devices. Configure closet server rules.
- Challenge: Don't want to risk installation failing due to network outages
 - Solution: Use content repository rather than UNC files
- Challenge: Existing versions of Office already present
 - Solution: Office 2007 / ZCM can remove these before installation

Challenges and solutions

- Challenge: Office 2007 requires Windows Installer v3.1
 - Solution: ZCM will check and install first if required
- Challenge: Include Office 2007 patches
 - Solution: Extract patches and integrate into installation
- Challenge: Update inventory once installed for reporting and compliance purposes
 - Solution: Trigger inventory scan at end
- Challenge: Reduce overall deployment time
 - Solution: Run Q & A and distribution in parallel by separating content from installation logic. Content bundles are transmitted to all managed devices whilst installation logic / application testing takes place. Once complete, bundle for installation are deployed. As these are small in size, they are fast to deploy and can be rolled out at any time.

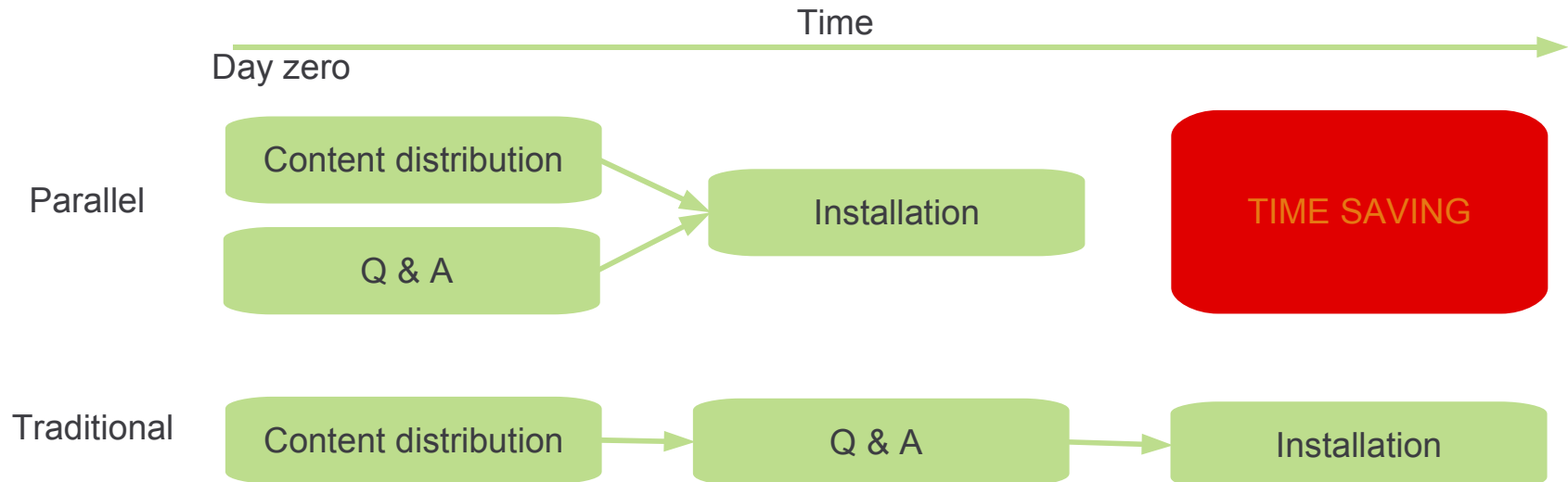
Deployment design

The bottom of the slide features a series of five horizontal, glowing white lines that fade out towards the right, set against the blue background.

Process overview

- Parallel deployment and Q & A

- Content bundles holding Office 2007 and updates are distributed, but not installed, out of hours over a period of days
 - > Content bundles will automatically disappear from managed devices after 336 hours. This can be time period can be changed.
- During this time, the Office 2007 & installation logic Q & A testing process is run
- If Q & A gives green light, bundles with installation logic & configuration file are deployed. As these are small in size they can be quickly rolled out

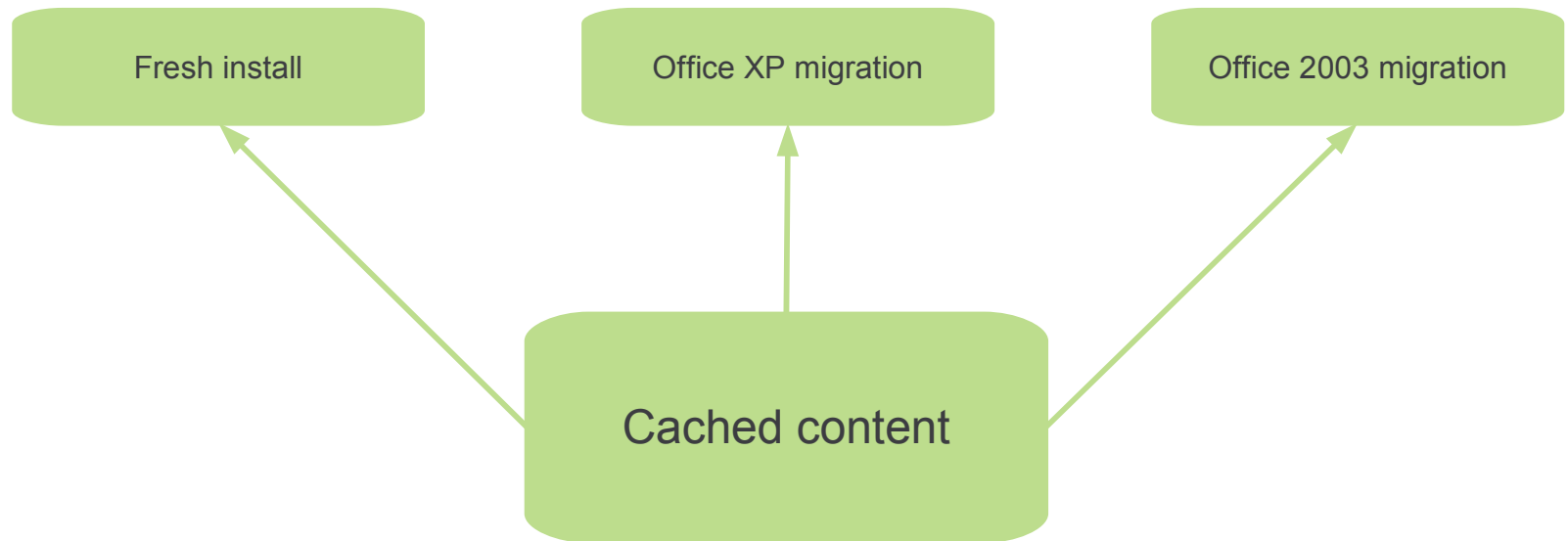


Installation bundles

- Multiple installation bundles are used to address each use case
 - Cloned from master installation bundle
 - Use cases
 - > Fresh Office 2007 install
 - > Migration, removing old edition first. Requires separate bundle for each old edition of Office
 - Bundle requirements control which bundle executes

Same cached content for differing installations

- Installation bundles use same cached content bundles present on managed devices
 - It's the logic and configuration that are different



Cached content bundles

Cache content bundles

- These hold the Office 2007 installation files, updates and configuration to be applied
 - By having these outside of the main install bundle, they can be distributed ahead of time at low network usage moments
 - To managed devices providing satellite services
 - From Primary / Satellites to targeted managed devices
 - Individual bundles allows greater flexibility than having one 700mb giant
- Bundles will be distributed but not installed**
- Main installation bundle calls installation actions
 - Cache content bundle will be stored on managed devices for 336 hours by default. This period can be changed in ZCC to align with requirements.

The bundles

- content-office2007-files
 - Holds a copy of the Office 2007 media
- content-office2007-updates
 - Stores all updates applicable to Office 2007 that you want to apply at time of installation
- content-office2007-config
 - Has Office 2007 configuration files that control how Office will be installed on a managed device
 - To deal with multiple configurations, there will be multiple bundles.
 - Master installation bundle will include the relevant one

content-office2007-files - Creating

- Bundle creation
 - Type: windows bundle → Click Next
 - Category: empty bundle → Click Next
 - Name: content-office2007-files
 - Icon: Whatever you want
 - Description: Office 2007 installation files → Click Next
 - Select Define additional properties → Click Finish

content-office2007-files - Requirements

- Check for Office 2007 already installed
 - Uses GUIDs for this. See Appendix 1 for these
- In bundle properties
 - Requirements tab
 - Add Filter
 - Choose Registry Key Exists from drop down list
 - In box, enter
 - HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\<Office 2007 GUID>
 - Then choose No

content-office2007-files - content

- In bundle content-office2007-files, add install actions
 - Type: Create/Delete directory
 - > Action Name: Create office install folder
 - > Action type: Create directory
 - > Directory name: %ZENWORKS_HOME%\office2007
 - > Executable security level: Run as dynamic administrator
 - Type: Install directory
 - > Name: Office 2007 installation files
 - > Source: <Office 2007 media>
 - > Destination: %ZENWORKS_HOME%\office2007
 - > Copy Option: Copy Always

content-office2007-updates - Creating

- Bundle creation
 - Type: windows bundle → Click Next
 - Category: empty bundle → Click Next
 - Name: content-office2007-updates
 - Icon: Whatever you want
 - Description: Office 2007 installation files → Click Next
 - Select Define additional properties → Click Finish

content-office2007-updates - Requirements

- Check for Office 2007 already installed
 - Uses GUIDs for this. See Appendix 1 for these
- In bundle properties
 - Requirements tab
 - Add Filter
 - Choose Registry Key Exists from drop down list
 - In box, enter
 - HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\<Office 2007 GUID>
 - Then choose No

content-office2007-updates - content

- In bundle content-office2007-updates, add install actions
 - Type: Create/Delete directory
 - > Action Name: Create office install folder
 - > Action type: Create directory
 - > Directory name: %ZENWORKS_HOME%\office2007
 - > Executable security level: Run as dynamic administrator
 - Type: Install directory
 - > Name: Office 2007 updates
 - > Source: <extracted files from Office 2007 updates. See Appendix 3>
 - > Destination: %ZENWORKS_HOME%\office2007\updates
 - > Copy Option: Copy Always

content-office2007-config - Creating

- Bundle creation
 - Type: windows bundle → Click Next
 - Category: empty bundle → Click Next
 - Name: content-office2007-config
 - Icon: Whatever you want
 - Description: Office 2007 installation files → Click Next
 - Select Define additional properties → Click Finish

content-office2007-config - Requirements

- Check for Office 2007 already installed
 - Uses GUIDs for this. See Appendix 1 for these
- In bundle properties
 - Requirements tab
 - Add Filter
 - Choose Registry Key Exists from drop down list
 - In box, enter
 - HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\<Office 2007 GUID>
 - Then choose No

content-office2007-files - content

- In bundle content-office2007-config, add install actions
 - Type: Create/Delete directory
 - > Action Name: Create office install folder
 - > Action type: Create directory
 - > Directory name: %ZENWORKS_HOME%\office2007
 - > Executable security level: Run as dynamic administrator
 - Type: Install files
 - > Name: Office 2007 install xml file
 - > Source: <Office 2007 config.xml. See Appendix 2>
 - > Destination: %ZENWORKS_HOME%\office2007
 - > Copy Option: Copy Always

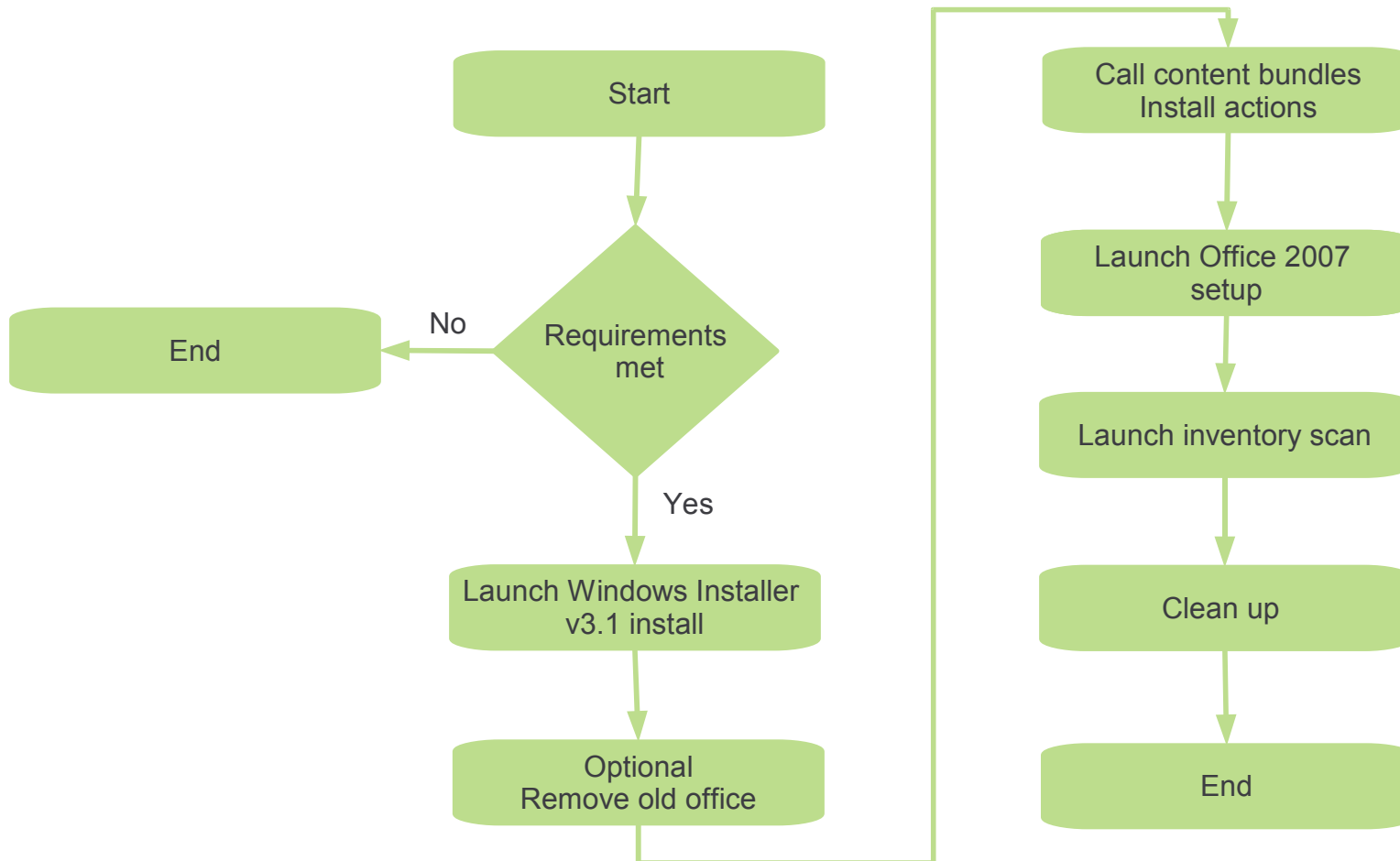
content-office2007-files - content

- In bundle content-office2007-config, add install actions
 - Type: Create/Delete directory
 - > Action Name: Create office install folder
 - > Action type: Create directory
 - > Directory name: %ZENWORKS_HOME%\office2007\updates
 - > Executable security level: Run as dynamic administrator
 - Type: Install files
 - > Name: Office 2007 install msp file
 - > Source: <Office 2007 msp. See Appendix 2>
 - > Destination: %ZENWORKS_HOME%\office2007
 - > Copy Option: Copy Always

Installation bundles

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Install bundle – overview



Installation bundle - Creating

- Bundle creation
 - Type: windows bundle → Click Next
 - Category: empty bundle → Click Next
 - Name: install-office2007
 - Icon: Whatever you want
 - Description: Installs Office 2007 → Click Next
 - Select Define additional properties → Click Finish

Installation bundle - Requirements

- Check for Office 2007 already installed and for an old edition.
 - Uses GUIDs for this. See Appendix 1 for these
- In bundle properties
 - Requirements tab
 - Add Filter
 - Choose Registry Key Exists from drop down list
 - In box, enter
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\<Office 2007 GUID>
 - Then choose No

Installation bundle - Requirements

- To prevent bundle running unless old edition of Office already present, add additional filter using AND condition

- Uses registry key to test presence

HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\<Office GUID>

- See Appendix 1 for common Office GUIDs

- Example: for Office 2003 Professional being installed

- Combined filters: AND

- Add Filter

- Choose Registry Key Exists from drop down list

- In box, enter

HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\CurrentVersion\Uninstall\{90110409-6000-11D3-8CFE-0150048383C9}

- Then choose Yes

Installation bundle – Launch Windows Installer v3.1 install



- Download from
 - [HTTP://www.microsoft.com/downloads/details.aspx?FamilyId=889482FC-5F56-4A38-B838-DE776FD4138C&displaylang=en&displaylang=en#filelist](http://www.microsoft.com/downloads/details.aspx?FamilyId=889482FC-5F56-4A38-B838-DE776FD4138C&displaylang=en&displaylang=en#filelist)
- In bundle install-office2007, add install actions
 - Type: Install files
 - > Name: Windows installer v31 setup
 - > File: WindowsInstaller-KB893803-v2-x86
 - > Destination: %ZENWORKS_HOME%
 - > Copy Option: Copy Always

Installation bundle – Launch Windows Installer v3.1 install



- Type: Launch Windows Executable
 - > Name: Launch installer
 - > Command:%ZENWORKS_HOME%\WindowsInstaller-KB893803-v2-x86
 - > Command line parameters: /quiet /norestart /overwriteoem
 - > Working directory:%ZENWORKS_HOME%
 - > Executable security level: Run as dynamic administrator
 - > Wait before proceeding to next action: When action is complete

Installation bundle – Optional remove old office version



- msiexec is launched with Office GUID
 - See Appendix 1 for common Office GUIDs
- In bundle install-office2007, add install actions
 - Type: Launch Windows Executable
 - > Name: Remove old Office
 - > Command: msiexec.exe
 - > Command line parameters: /x<GUID> /qn Reboot=REALLYSUPPRESS
 - > Working directory: %windir%\system32
 - > Executable security level: Run as dynamic administrator
 - > Wait before proceeding to next action: When action is complete

Installation bundle – Call content bundle install action

- In bundle install-office2007, add install actions
 - Type: Install bundle
 - > Name: Install content bundle office2007 files
 - > Bundle: content-office2007-files
 - Type: Install bundle
 - > Name: Install content bundle office2007 updates
 - > Bundle: content-office2007-updates
 - Type: Install bundle
 - > Name: Install content bundle office2007 config
 - > Bundle: content-office2007-config

Installation bundle – Launch Office 2007 setup

- In bundle install-office2007, add install actions
 - Type: Launch Windows Executable
 - > Name: Launch office 2007 setup
 - > Command: %ZENWORKS_HOME%\office2007\setup.exe
 - > Command line parameters: /config “%ZENWORKS_HOME%\office2007\config.xml”
 - > Working directory: %ZENWORKS_HOME%\office2007
 - > Executable security level: Run as dynamic administrator
 - > Wait before proceeding to next action: When action is complete
 - > Success return codes: 3010

Installation bundle – Launch inventory scan

- In bundle install-office2007, add install actions
 - Type: Launch Windows Executable
 - > Name: Launch inventory scan
 - > Command: %ZENWORKS_HOME%\bin\zac.exe
 - > Command line parameters: inventory scannnow
 - > Working directory: %ZENWORKS_HOME%\bin
 - > Executable security level: Run as normal (as logged in user) Hidden
 - > Wait before proceeding to next action: When action is complete

Installation bundle – Clean up

- In bundle install-office2007, add install actions
 - Type: Launch Windows Executable
 - > Name: Clean up
 - > Command: %windir%\cmd.exe
 - > Command line parameters: /c "rmdir /q /s "%ZENWORKS_HOME%\office2007"
 - > Working directory: %ZENWORKS_HOME%
 - > Executable security level: Run as dynamic administrator
 - > Wait before proceeding to next action: When action is complete

Putting it all together

What you should have now in ZCC

- Bundles
 - 3 content bundles
 - 1 master bundle

Bundles						
New ▾ Edit ▾ Delete Action ▾ Quick Tasks ▾						
<input type="checkbox"/>	Status	Name <small>≡</small>	Type	Category	Enabled	Version
<input type="checkbox"/>		content-office2007-config	Windows Bundle		Yes	3
<input type="checkbox"/>		content-office2007-files	Windows Bundle		Yes	2
<input type="checkbox"/>		content-office2007-updates	Windows Bundle		Yes	1
<input type="checkbox"/>		install-office2007	Windows Bundle		Yes	17

1 - 4 of 4 show 25 ▾ items

Distribution sequence

- Content bundles
 - Deploy one at a time or as a group
 - In each case, assignment details are
 - > No shortcut
 - > Select Distribution schedule, leave Launch & availability blank
 - > Distribution schedule
 - » Suggest date specific
 - ~ Use weekend if possible
 - ~ Use start times that have low network usage
 - » Leave Install immediately after distribution blank
 - Leave several days for content bundles to arrive at managed devices
 - Use bundle summary to see progress

Distribution sequence

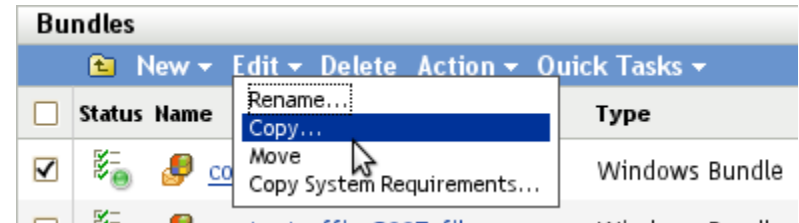
- Installation bundle
 - If forcing installation use launch schedule
 - If leaving end user to choose, just use distribution schedule
 - Its a tiny bundle.
 - > Schedule type is flexible to meet your requirements

Adaptations

The slide features a solid blue background. At the bottom, there are several horizontal white lines of varying lengths and thicknesses, creating a decorative effect.

Adaption 1: Differing Office 2007 configurations

- Create new msp / config.xml files
- In ZCC, copy bundles
 - content-office2007-config
 - Install-office2007



Bundles					
New Edit Delete Action Quick Tasks					
Status	Name	Type	Category	Enabled	Version
<input type="checkbox"/>	content-office2007-config	Windows Bundle		Yes	3
<input type="checkbox"/>	content-office2007-files	Windows Bundle		Yes	2
<input type="checkbox"/>	content-office2007-updates	Windows Bundle		Yes	1
<input type="checkbox"/>	Copy of content-office2007-config	Windows Bundle		Yes	0
<input type="checkbox"/>	Copy of install-office2007	Windows Bundle		Yes	0
<input type="checkbox"/>	install-office2007	Windows Bundle		Yes	17

1 - 6 of 6 show 25 items

Adaption 1: Differing Office 2007 configurations

- Change copy of content-office2007-config
 - Rename to content-office2007-config-<descriptive name for configuration>
 - Edit install files actions
 - > Remove existing files
 - > Add new
 - > Same destination

The screenshot displays the Novell ZENworks console interface. At the top, a 'Bundles' table lists several bundles. The bundle 'Copy of content-office2007-config' is selected, and a context menu is open over it, showing options like 'Rename...', 'Copy...', 'Move', and 'Copy System Requirements...'. Below the table, the 'Edit Action - Install File(s)' dialog is open. The 'Action Name' is 'Install File(s)'. The 'File Detail' section shows 'No items'. The 'Destination directory' field is empty. The 'Copy Option' is set to 'Copy Always'. The dialog also includes checkboxes for 'Hidden' and 'Read-only', and a note that fields marked with an asterisk are required.

Status	Name	Type
<input type="checkbox"/>	content-office2007-files	Windows
<input type="checkbox"/>	content-office2007-updates	Windows
<input checked="" type="checkbox"/>	Copy of content-office2007-config	Windows

Edit Action - Install File(s)

Action Name: Install File(s)

File Detail: No items

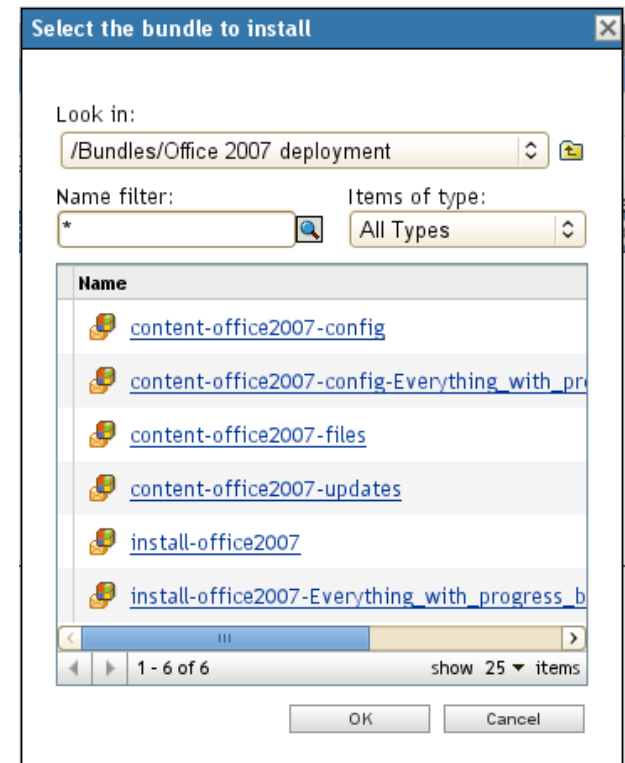
Destination directory: *

Copy Option: Copy Always

*Fields marked with an asterisk are required.

Adaption 1: Differing Office 2007 configurations

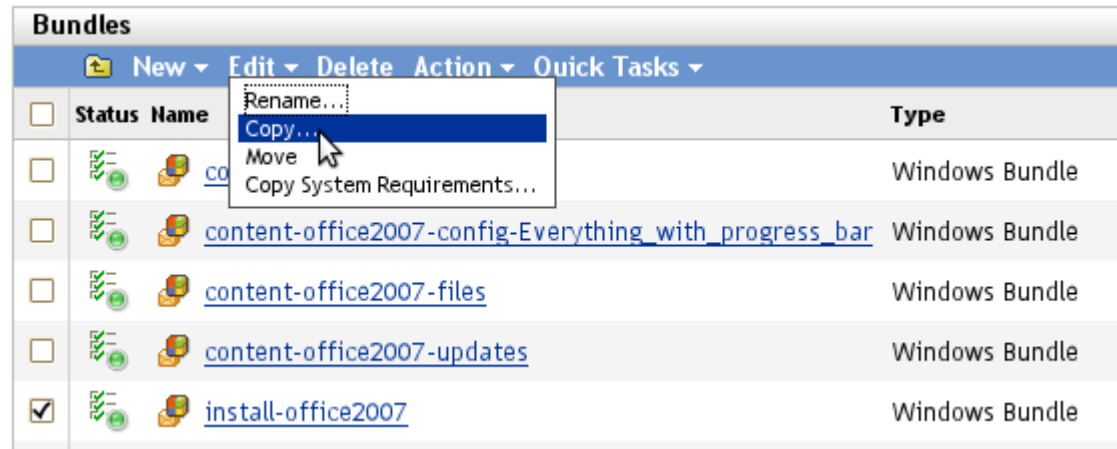
- Change copy of install-office2007
 - Rename to install-office2007-<descriptive name for configuration>
 - Edit install content bundle office2007 config action
 - > Change bundle to be installed to content-office2007-config-<descriptive name for configuration>



Adaption 2: Removing previous version of Office

In ZCC, copy bundle

- Install-office2007



The screenshot shows the ZCC Bundles interface. A context menu is open over the 'install-office2007' bundle, with the 'Copy...' option selected. The interface includes a menu bar with 'New', 'Edit', 'Delete', 'Action', and 'Quick Tasks'. The table below lists several bundles, all of which are 'Windows Bundle' type.

Status	Name	Type
<input type="checkbox"/>	content-office2007-config-Everything_with_progress_bar	Windows Bundle
<input type="checkbox"/>	content-office2007-files	Windows Bundle
<input type="checkbox"/>	content-office2007-updates	Windows Bundle
<input checked="" type="checkbox"/>	install-office2007	Windows Bundle

Adaption 2: Removing previous version of Office

- Change copy of install-office2007
 - Rename to install-office2007-**<descriptive name>**
 - Add install action
 - Type: Launch Windows Executable
 - > Action Name: Remove office **<name of old office>**
 - > Command: msiexec.exe
 - > Command line parameters: /x<GUID for old Office. See Appendix 1> /qn Reboot=REALLYSUPPRESS
 - > Working directory: %windir%\system32
 - > Executable security level: Run as dynamic administrator
 - > Wait before proceeding to next action: When action is complete
 - Move install action before launch office 2007 setup

Install		Launch		Verify	
Add	Remove	Move Up	Move Down	Enable	Disable
Options					
<input type="checkbox"/>	Name				Type
<input type="checkbox"/>	Windows installer v31 setup				Install File(s)
<input type="checkbox"/>	Launch installer				Launch Windows Executable
<input type="checkbox"/>	Install content bundle office 2007 config				Install Bundle
<input type="checkbox"/>	Install content bundle office2007 files				Install Bundle
<input type="checkbox"/>	Install content bundle office2007 updates				Install Bundle
<input type="checkbox"/>	Remove Office 2003				Launch Windows Executable
<input type="checkbox"/>	launch office 2007 setup				Launch Windows Executable
<input type="checkbox"/>	launch inventory scan				Launch Windows Executable
<input type="checkbox"/>	Clean up				Launch Windows Executable

1 - 9 of 9

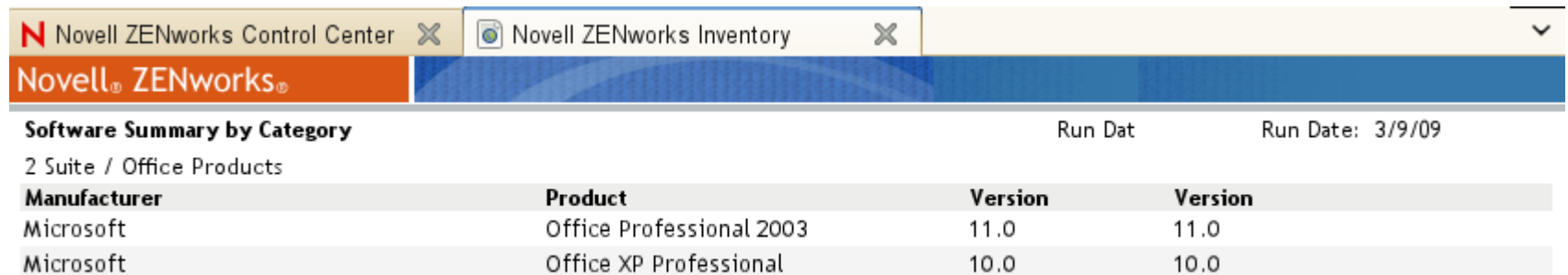
Adaption 2: Removing previous version of Office

- Change copy of install-office2007 condn.
 - Add requirement
 - > Combine filters using AND
 - > Add Filter
 - » Choose Registry Key Exists from drop down list
 - » In box, enter
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\<old office GUID. See Appendix 1>
 - » Then choose Yes

Appendix 1 Finding Office editions & GUIDs

Finding old Office editions

- To find Office editions in use,
 - ZCC – Reports - Run Software Applications by Category
 - Find Suite and click on number of installations on right hand side
 - In SubCategory listings, find Office and click on number of installations on right hand side.
 - Office products are listed



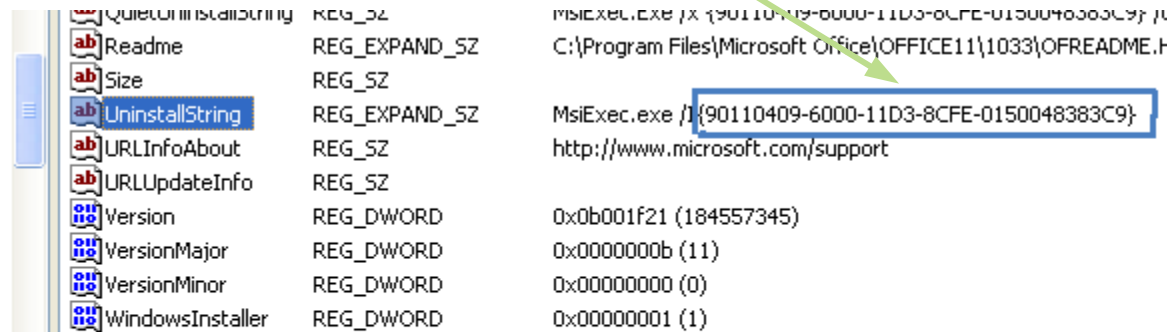
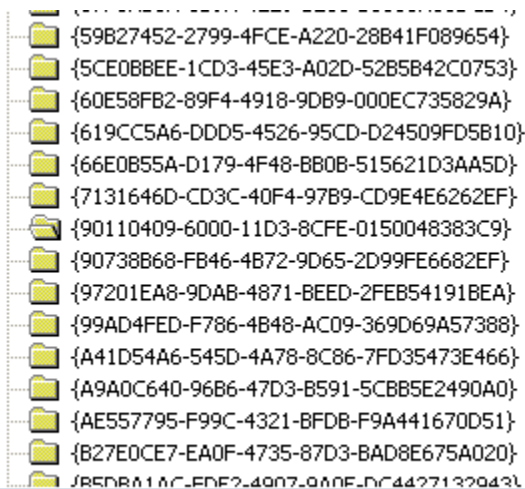
The screenshot shows the Novell ZENworks Control Center interface. The top navigation bar includes the Novell logo and the text 'Novell ZENworks'. Below this, there are two browser tabs: 'Novell ZENworks Control Center' and 'Novell ZENworks Inventory'. The main content area displays a 'Software Summary by Category' report. The report shows 2 Suite / Office Products. The table below lists the products, their manufacturers, and their versions. The 'Run Date' is 3/9/09.

Software Summary by Category				Run Dat	Run Date: 3/9/09
2 Suite / Office Products					
Manufacturer	Product	Version	Version		
Microsoft	Office Professional 2003	11.0	11.0		
Microsoft	Office XP Professional	10.0	10.0		

Find office GUID

• Finding the GUID

- Pick one managed device from report on previous slide for each version of office
- On that device, Search windows registry for 'Microsoft Office' under
 - > hklm\software\microsoft\windows\currentversion\uninstall
- Find key where ProductName value data contain the Office edition we need
- GUID is tacked onto end of msiexec statement in UninstallString



HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\{90110409-6000-11D3-8CFE-0150048383C9}

Common Office GUIDs

- Office 2007 (x86)
 - Standard {90120000-0012-0000-0000-00000000FF1CE}
 - Professional {90120000-0014-0000-0000-00000000FF1CE}
 - Professional plus {90120000-0011-0000-0000-00000000FF1CE}
 - Enterprise {90120000-0030-0000-0000-00000000FF1CE}
- Office 2003 (x86)
 - Standard {90120409-6000-11D3-8CFE-0150048383C9}
 - Professional {90110409-6000-11D3-8CFE-0150048383C9}
- Office XP (x86)
 - Standard {90120409-6000-11D3-8CFE-0050048383C9}
 - Professional {90110409-6000-11D3-8CFE-0050048383C9}
 - Professional with FrontPage {90280409-6000-11D3-8CFE-0050048383C9}

Common Office GUIDs

- More detail and GUIDs can be found at
 - Office 2007 <http://support.microsoft.com/kb/928516/>
 - Office 2003 <http://support.microsoft.com/kb/832672/>
 - Office XP <http://support.microsoft.com/kb/302663/>

Appendix 2 Customizing Office 2007

Customizing Office 2007 - Overview

- Office 2007 Enterprise edition has an admin kit which generates a msp file. This file along with another, config.xml, controls how Office gets installed
 - Other Office 2007 editions just use config.xml
 - See <http://technet.microsoft.com/en-us/library/cc179132.aspx>
- The msp file generated by admin kit needs to be placed in the same location as the Office patches and is run automatically
- Location of config.xml is supplied as a parameter to Office 2007 setup
- For more detail on Office 2007 customization see
 - <http://technet.microsoft.com/en-us/library/cc179121.aspx>

Customizing Office 2007 - config.xml

- SuperLab exercise only used config.xml for customization Office 2007
- Useful settings for config.xml
 - Version of Office being installed. Look at config.xml supplied with Office media for the value to use. This is for Professional Edition
`<Configuration Product="Pror">`
 - Show progress and no completion screen at end
`<Display Level="Basic" CompletionNotice="No" SuppressModal="Yes" NoCancel="Yes" AcceptEula="Yes" />`
 - Silent installation
`<Display Level="None" CompletionNotice="No" SuppressModal="Yes" NoCancel="Yes" AcceptEula="Yes" />`
 - Product key
`<PIDKEY Value="my product key with - removed" />`
 - Force no reboot.
`<Setting Id="SETUP_REBOOT" Value="Never" />`

Customizing Office 2007 - example config.xml (everything & silent install)

```

<Configuration Product="Pror">
  <Display Level="None" CompletionNotice="No" SuppressModal="Yes"
  NoCancel="Yes" AcceptEula="Yes" />
  <Logging Type="standard" Path="%temp%" Template="office2007-
  setup(*).txt" />
  <PIDKEY Value="your office product key" />
  <USERNAME Value="username" />
  <COMPANYNAME Value="company name" />
  <INSTALLLOCATION Value="%programfiles%\Microsoft Office" />
  <OptionState Id="ACCESSFiles" State="local" Children="force" /> //access
  <OptionState Id="OUTLOOKFiles" State="local" Children="force" /> //outlook
  <OptionState Id="EXCELFiles" State="local" Children="force" /> //excel
  <OptionState Id="PubPrimary" State="local" Children="force" /> //publisher
  <OptionState Id="PPTFiles" State="local" Children="force" /> //Powerpoint
  <OptionState Id="AceRepl" State="local" Children="force" /> //access db
  Engine replication
  <OptionState Id="CAGFiles" State="Local" Children="force" /> //Clip Organize
  <OptionState Id="MSSOAP3" State="local" Children="force" /> //SOAP toolkit
  <OptionState Id="WISPFiles" State="local" Children="force" />
  //handwriting
  <OptionState Id="DocServicesFiles" State="local"
  Children="force" /> //docu update util
  <OptionState Id="HTMLSourceEditing" State="local"
  Children="force" /> //script editor
  <OptionState Id="DocumentImagingUtils" State="local"
  Children="force" /> //scanning,ocr,indexing
  <OptionState Id="OISFiles" State="local" Children="force" />
  //picture manager
  <OptionState Id="OSESupp" State="local" Children="force" />
  //sharepoint support
  <OptionState Id="QueryFiles" State="local" Children="force" /> //
  msQuery
  <OptionState Id="VisioPreviewerFiles" State="local"
  Children="force" /> //visio viewer
  <OptionState Id="XDOCSFiles" State="local" Children="force"
  /> //infopath
  <Setting Id="SETUP_REBOOT" Value="Never" />
</Configuration>

```

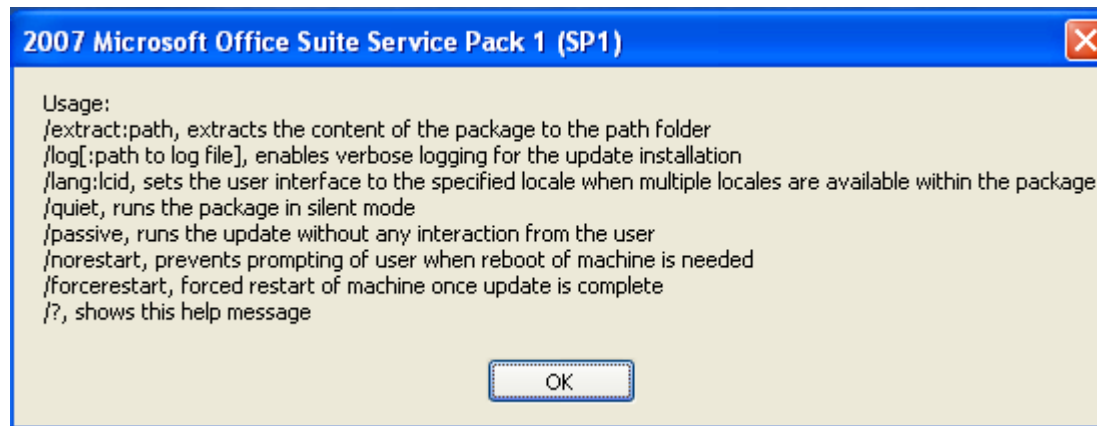
Appendix 3 Extracting Office 2007 updates

Extracting Office 2007 updates

- Office 2007 updates can be found here:

<http://www.microsoft.com/downloads/en/resultsForProduct.aspx?displaylang=en&productID=4289AE77-4CBA-4A75-86F0-9FF96F68E491>

- After downloading relevant updates, extract the contained files
- To do this, run the update with the parameter `/extract:<path to folder for extracted files>`
- Use this folder as the source for `content-office2007-updates`
- If `/extract` doesn't work, check the parameters by running update with `/?` shown below



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