

Using Group Policies to Install AutoCAD® 2004

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IT23-1 In this session, you'll leverage the new functionality in the Network Installation wizard and learn a step-by-step process for using group policies to install AutoCAD® 2004 to local workstations.

About the Speakers:

Nate Bartley has worked for Autodesk for over 10 years, most recently as a quality assurance engineer on the interoperability team specializing in network and operating system issues. As an Autodesk® software user since 1984, he has used, trained, tested, and supported AutoCAD® and AutoCAD-based products. Before joining Autodesk, he was a CAD manager for a small architectural firm in San Jose, California. Nate earned his B.S. degree in Architectural Engineering from the University of Colorado, Boulder.
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Jerry Milana is a senior principal consultant with Autodesk Professional Services (APS), specializing in network and operating-specific issues. In addition to providing support and training to dealers and major accounts, Jerry also represents the Product Support Department at product development meetings. Prior to joining Autodesk, he was in charge of sales and support for an AutoCAD® dealer. Jerry served as president of an AutoCAD user group and on advisory councils for local collages. He has accepted numerous invitations to lecture on TCP/IP networking and AutoCAD topics. Jerry has also contributed to CADENCE magazine on networking AutoCAD.

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This paper provides a step-by-step process for creating a Group Policy that will install AutoCAD 2004 or AutoCAD 2004-based products to a computer. The Group Policy method used is **Assigned to Computer**.

NOTES:

- Windows XP Pro and Windows 2000 are the only supported operating systems for group policies
- The computer where AutoCAD will be installed must have Internet Explorer 6.0 or later installed. If it does not, you can install it from the AutoCAD product CD.
- The computer where AutoCAD will be installed must have Microsoft Installer (MSI) version 2.0 or later installed. The easiest way to check the version of MSI is to check the properties of *MSIEXEC.exe* and the version found on the Version tab. *MSIEXEC.exe* is located in the *SYSTEM32* folder. If it is not version 2.0 or later install MSI from the AutoCAD CD.

If IE6.0 or MSI version 2.0 is not installed when trying to apply the GPO, it will fail.

- In order to use Group Policies to install AutoCAD 2004 under Windows 2000, you must download the AutoCAD GPO fix from www.autodesk.com at:

<http://usa.autodesk.com/adsk/servlet/ps/dl/item?siteID=123112&id=3427158&linkID=2475161>

- There are two other methods of Group Policy installations that are not covered in this document: Assigned to User and Published to user. Currently we document how to use these two methods in the Network Administrator's Guide but both have their limitations and are NOT the recommended methods.
- The screen captures in this document are for reference only.
- Whenever AutoCAD is mentioned in this document, it can be replaced by AutoCAD 2004 or most AutoCAD 2004-based product.
- AutoCAD 2004 is used as an example. Other AutoCAD 2004-based products will work with small modifications.

Installing AutoCAD using Group Policy

Below are the main steps and requirements for using group policies to install AutoCAD 2004 or AutoCAD 2004-based products.

General steps and requirements:

1. Create a deployment (AdminImage) using the *Network Installation Wizard* (NIW). The AdminImage will be used by the Group Policy to install AutoCAD to a workstation.
2. (Windows 2000 only) Download the AutoCAD GPO (MST) fix from www.autodesk.com that allows AutoCAD to be installed using group policies.
3. Workstations must be part of a domain and assigned to an Organization Unit (OU) in the Active Directory tree. The workstation must also have Internet Explorer 6.0 or later installed and Microsoft Installer (MSI) version 2.0 or later prior to applying the group policy.
4. Create a Group Policy Object (GPO) in the Organizational Unit where AutoCAD will be installed. Only computers within this OU or child OU will receive the GPO thus installing AutoCAD. You must apply the AutoCAD GPO fix during the creation of the GPO, if you are targeting any computers running Windows 2000.
5. Reboot each computer to receive the group policy
6. Verify that AutoCAD was installed and runs.

Create a deployment (AdminImage)

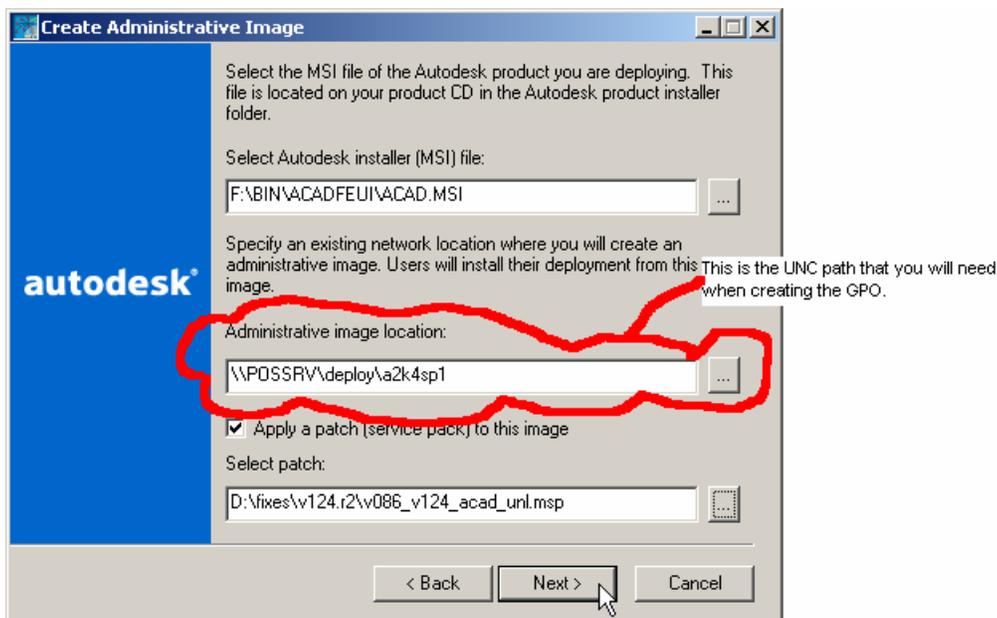
NOTES:

- If you want to include a Service Pack in the Administrative Image for AutoCAD 2004-based products, you must first apply the Network Installation Wizard Service Pack (patch) first. You can find the NIW SP and its instructions at:

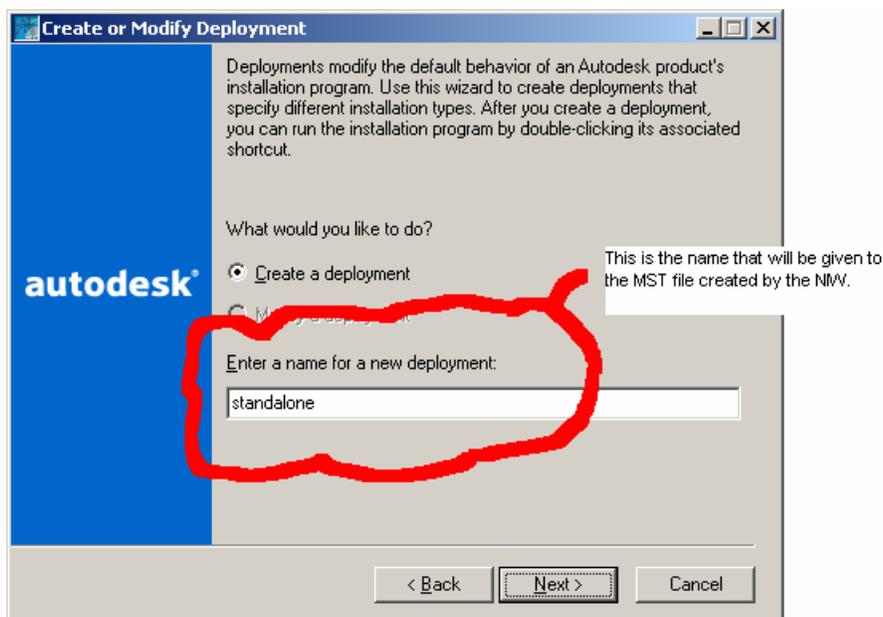
<http://usa.autodesk.com/adsk/servlet/ps/dl/item?siteID=123112&id=3527639&linkID=2475161>

- It is recommended that you test the deployment created by the NIW before creating the group policy, this ensures that AutoCAD installs correctly without group policies being involved.

Using the Network Installation Wizard (NIW) create a deployment. The deployment creates an Administrative Image (AdminImage) to be used by the group policy. Note the share name (UNC path) where the AdminImage is located. You will need the share name when creating the group policy.



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In this example, the MST created by the NIW will be *standalone.MST* and can be found in `\\POSSRV\deploy\a2k4sp1\AdminImage`.

NOTE: The steps to actually create the AdminImage using the Network Installation wizard are not documented. Consult the Network Administrator's Guide if you need help using the NIW. The NIW was demonstrated in class.

Copying the AutoCAD GPO (MST) fix into AdminImage folder (Windows 2000 only)

To make applying the fixed MST for installing via group policies easy, copy the file *GPOa2k4sp1.mst* that you downloaded from the web to:

`\\<UNC Path where deployment was created>\AdminImage`

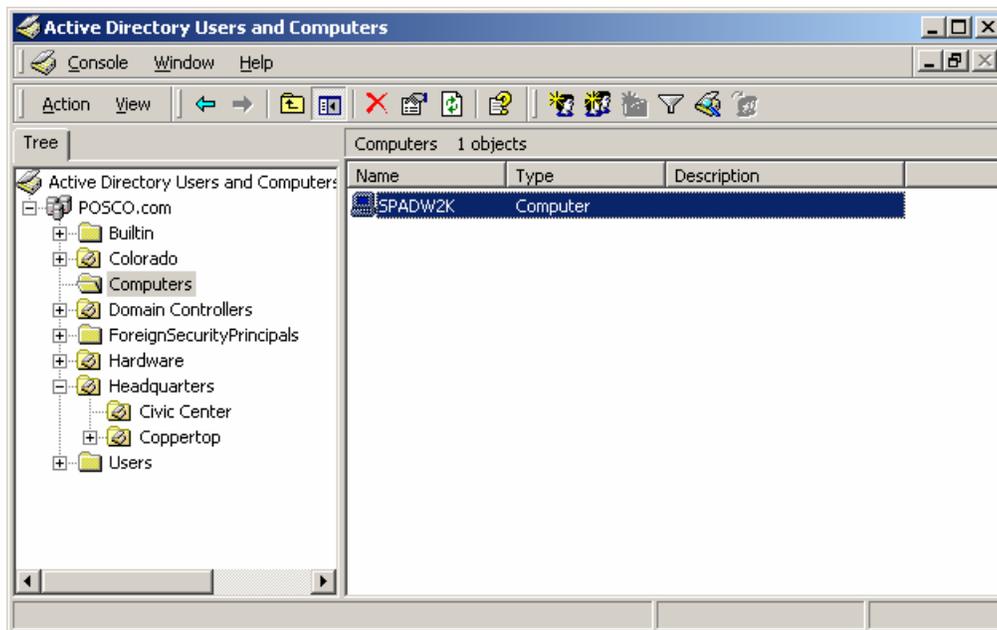
In our example, the path would be `\\POSSRV\deploy\a2k4sp1\AdminImage`.

NOTE: The GPO MST fix may be applied to a deployment that will be installed to both Windows 2000 and Windows XP computer with no ill affect on the XP computers.

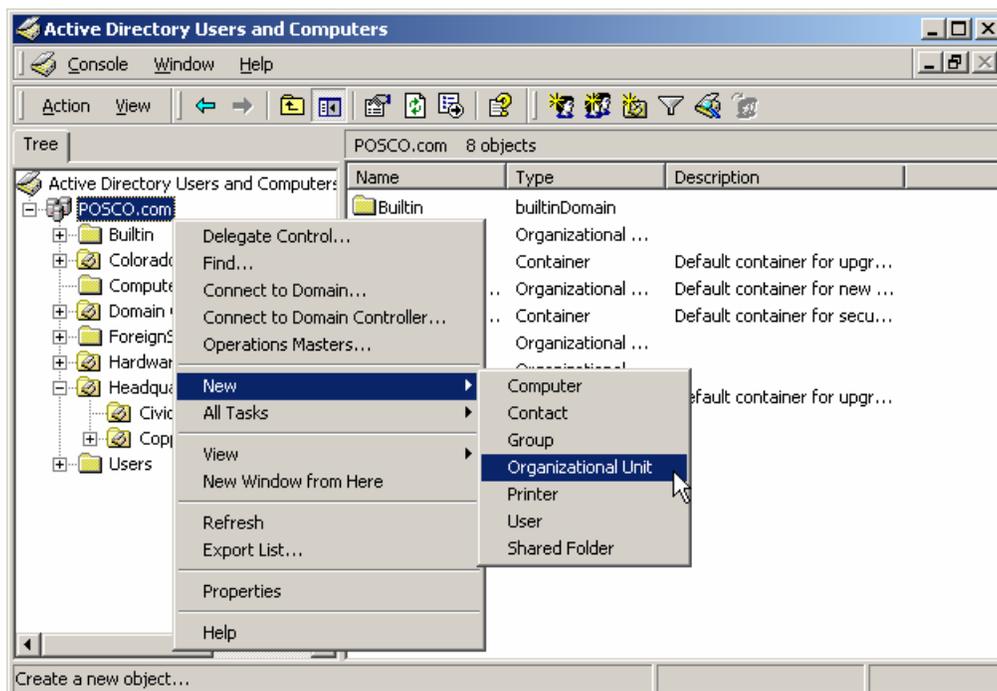
Adding a computer to an OU within the Active Directory

Adding a computer to an OU within the Active Directory tree:

1. First add the computer to the domain. By default when a computer is added to the domain, it is placed in the *COMPUTER* organization unit (OU) within the Active Directory Tree. This can be verified by:
 - a. Start the *Active Directory Users and Computers* management console, Start menu | Programs | Administrative Tools | Active Directory Users and Computers.
 - b. In the management console under the left-hand pane under the Tree tab you should see your domain (domainname.com). If the Domain tree is not expanded click on the plus (+) symbol next to the name to expand it. Select the *COMPUTERS* folder.
 - c. In the *COMPUTERS* folder, verify that the computer for which the group policy will be applied is contained within this folder. You will be moving this computer to the correct OU in step 3 below.



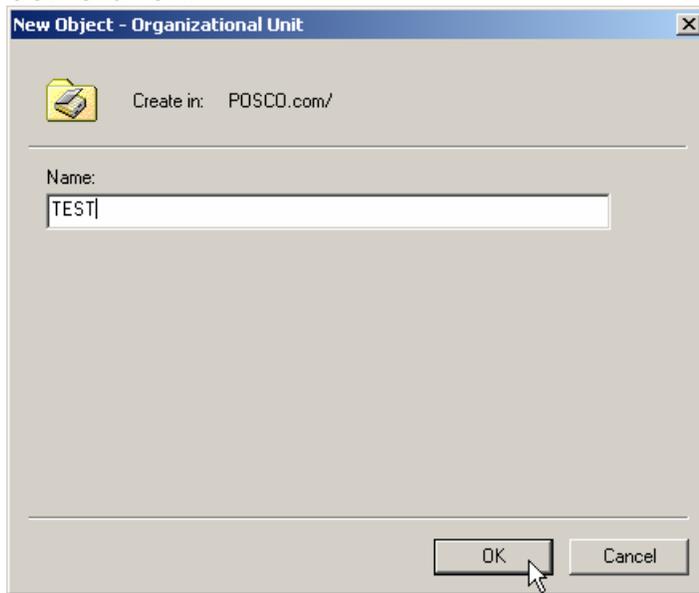
2. Create a *TEST* organizational unit or use an existing OU. This OU will be used when creating the GPO that will be used for installing AutoCAD.
 - a. Start the *Active Directory Users and Computers* management console if it is not already started.
 - b. Select the domain (domainname.com) in the left-hand pane of the management console and right-click. In the popup menu, select *New | Organizational Unit*.



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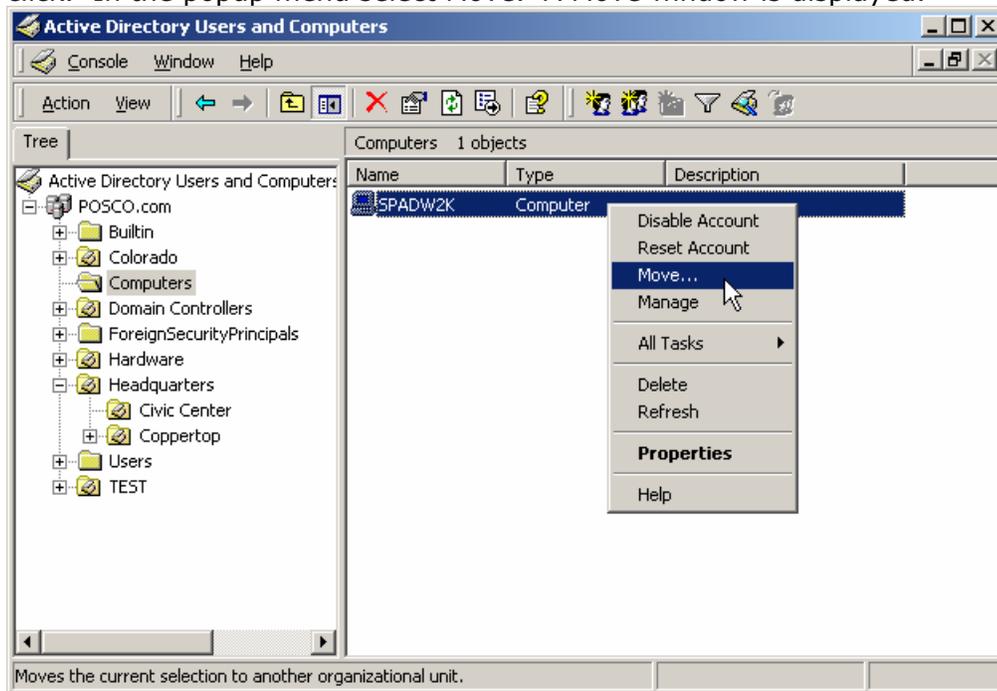
The New Object – Organizational Unit windows will be displayed.

- c. In the New Object – Organizational Unit window enter *TEST* for the name of the new OU. Click OK.



You have created a new OU called *TEST* which will be used for creating the GPO.

3. Move the computer to the *TEST* OU.
 - a. Start the *Active Directory Users and Computers* management console if it is not already started.
 - b. Select the *COMPUTERS* OU from the left-hand pane.
 - c. Select the computer to be used in testing in the right-hand pane and right-mouse click. In the popup menu select *Move*. A *Move* window is displayed.



- d. In the Move window, navigate to the *TEST* OU and press OK.



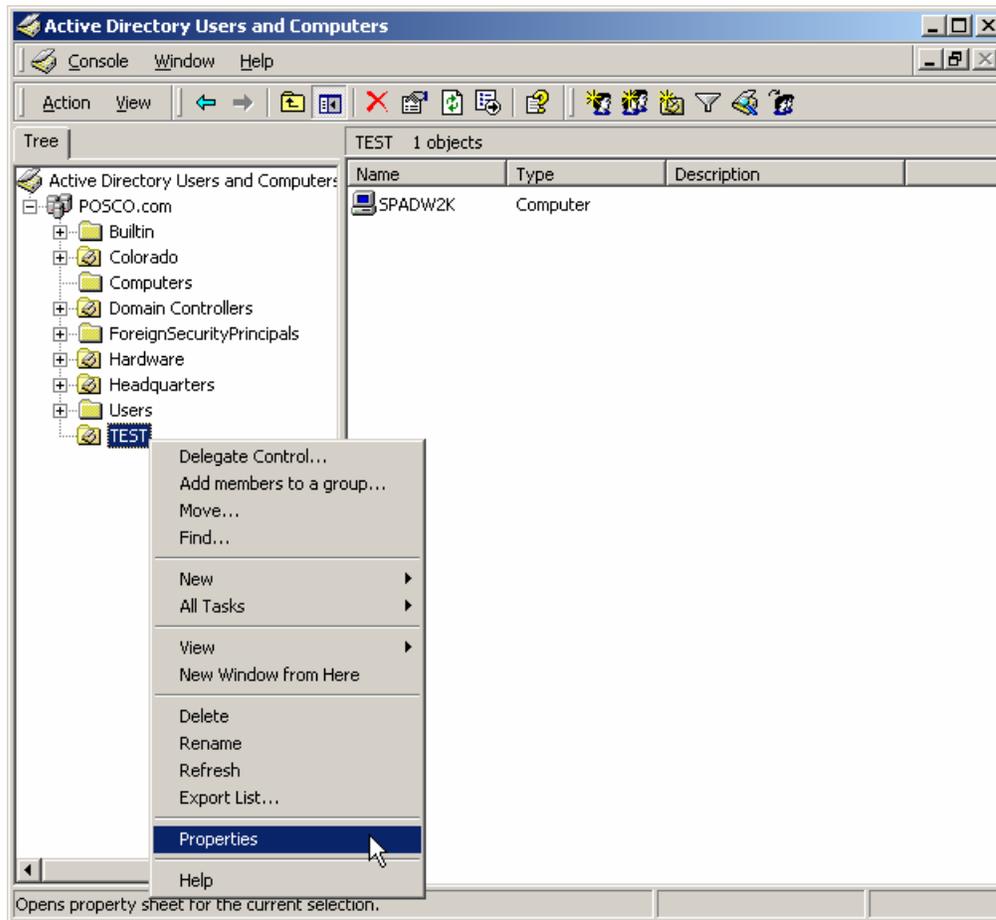
The computer is now in the OU where the Group Policy will be created and applied.

Create a GPO to install AutoCAD.

NOTE: This is where the AutoCAD GPO fix is applied for Windows 2000.

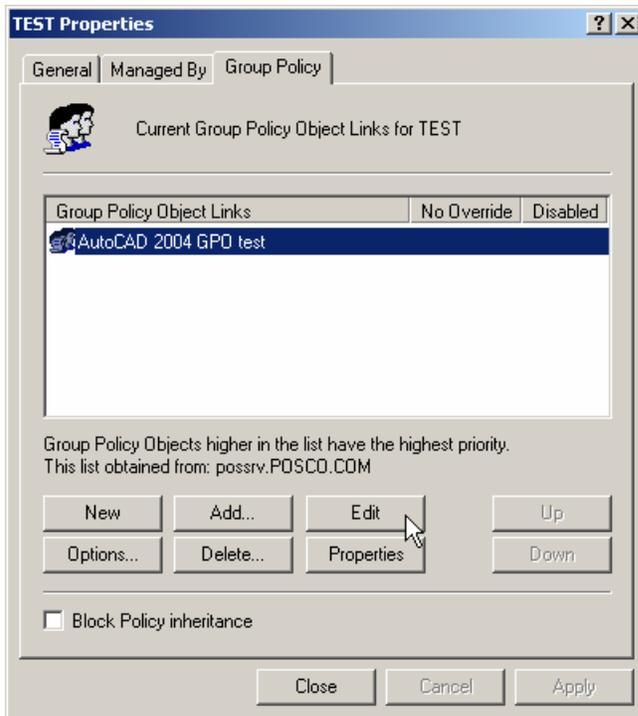
1. Start the *Active Directory Users and Computers* management console if it is not already started.
2. In the left-hand pane, right-click on the *TEST* OU and select Properties from the popup menu.

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This brings up the *TEST Properties* window.

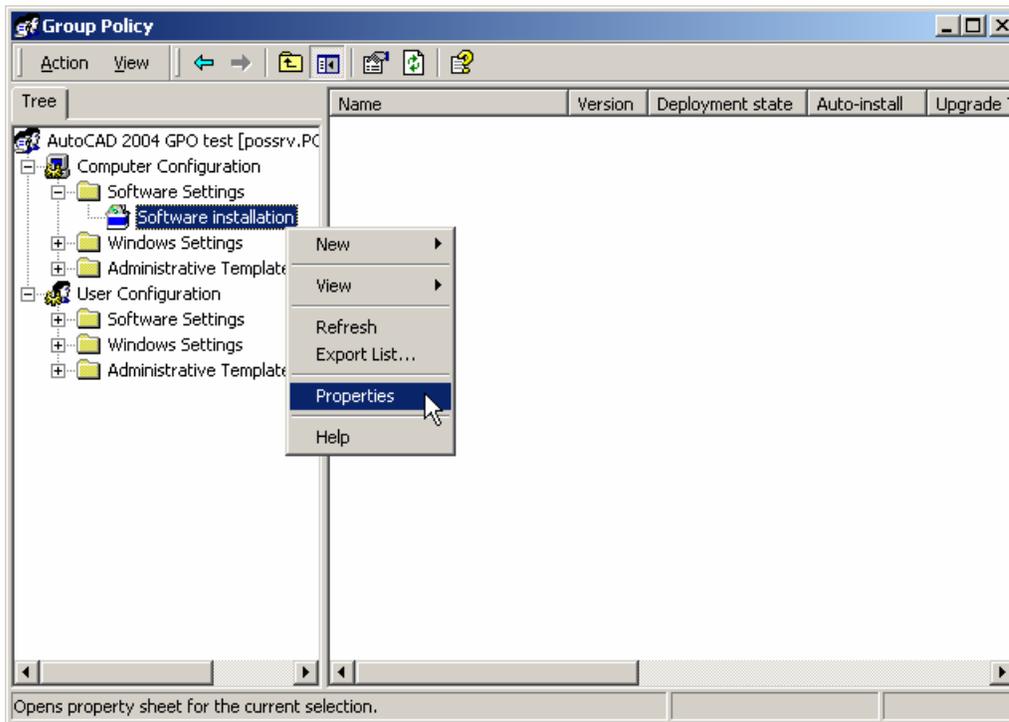
3. In the *TEST Properties* window select the Group Policy tab.
4. In the Group Policies tab click the *New* button. A "New Group Policy Object" is added to the *Group Policy Objects Links* list and is highlighted to be renamed. Change the name to *AutoCAD GPO test*. Click the *EDIT* button.



The Group Policy window is displayed.

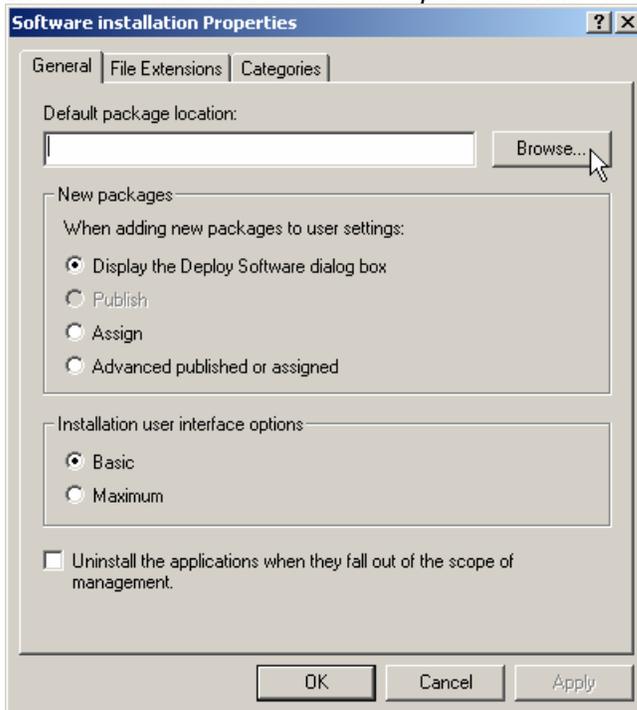
5. In the left-hand pane under Computer Configuration select Software Settings. Click the plus (+) symbol next to Software Settings under Computer Configuration to expand the tree view. This will display *Software installation* object.
6. Select the *Software Installation* object and right-click. Select *Properties* from the popup menu.

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The *Software installation Properties* window is displayed.

7. In the *Software installation Properties* window click the *Browse* button.

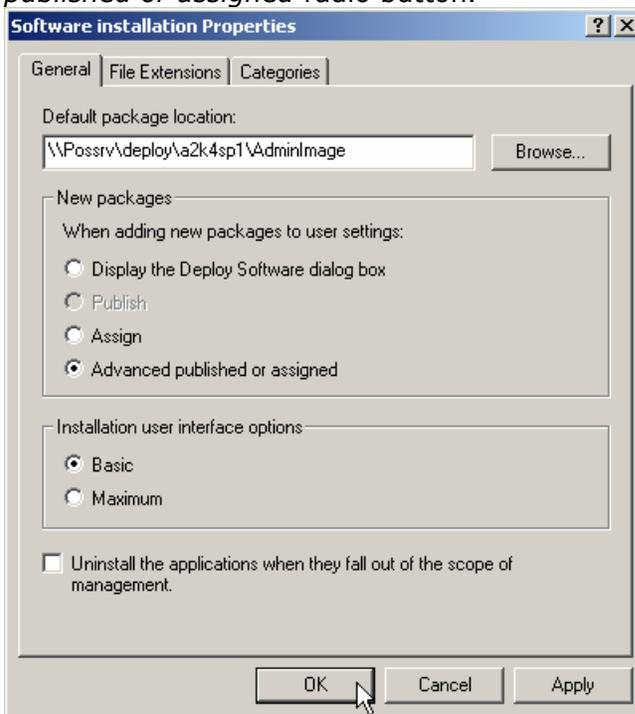


The *Browse for Folder* window is displayed. Navigate to the *AdminImage* folder found under the UNC path used when creating the deployment in the NIW. Be sure to go through Microsoft Windows Network and NOT the Directory path. Click OK.



You are returned to *Software installation Properties* window.

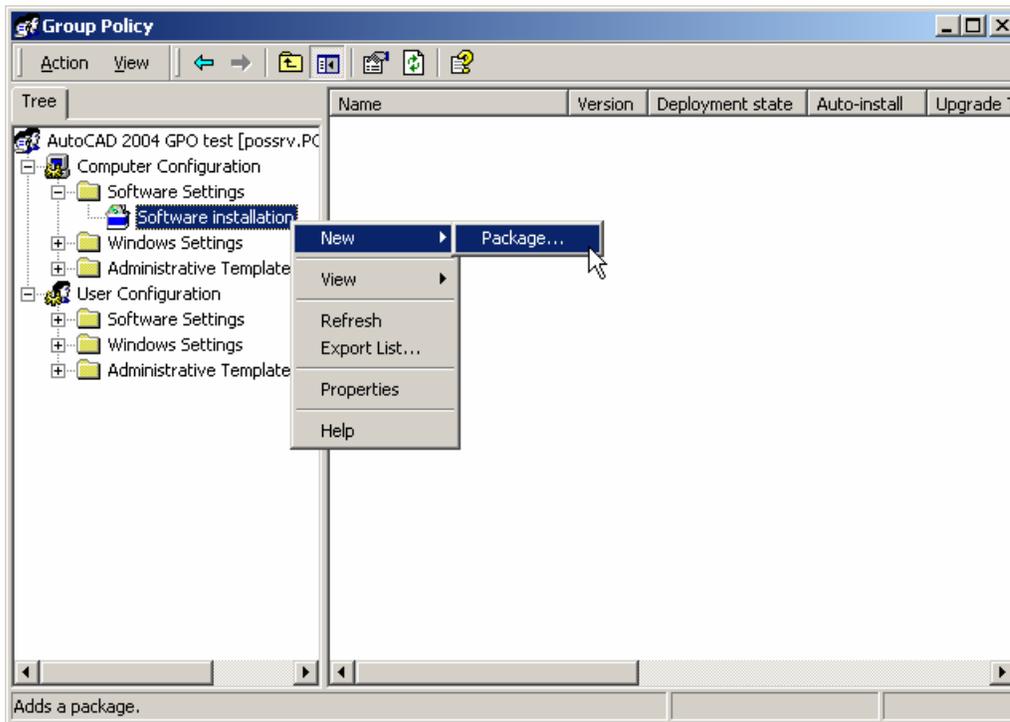
8. In the *Software installation Properties* window under *New Packages* section select *Advanced published or assigned* radio button.



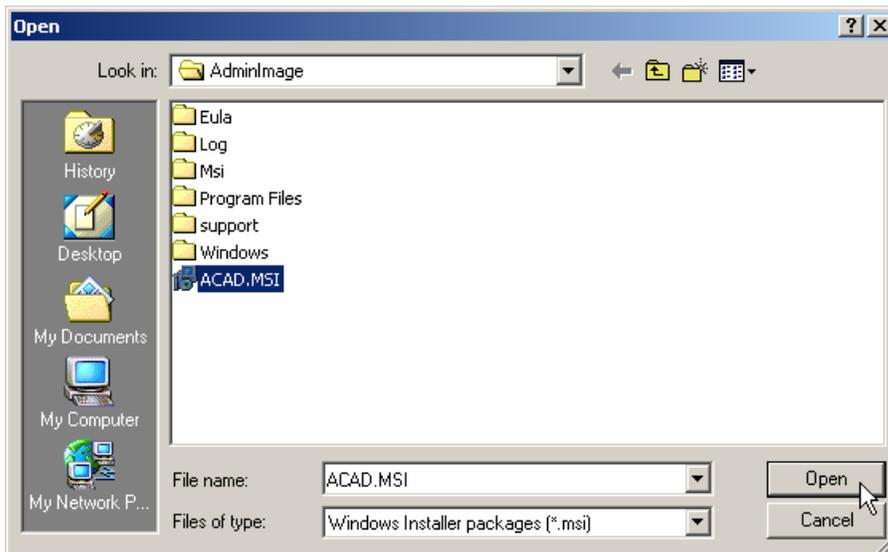
NOTE: While Windows 2003 server is not currently supported, the option "Advanced published or assigned" has changed to just "Advanced".

9. Click *OK* to close the *Software installation Properties* window and return to the Group Policy window.
10. Again right-click on *Software installation* under *Computer Configuration | Software Settings*. In the popup menu select *New | Package*.

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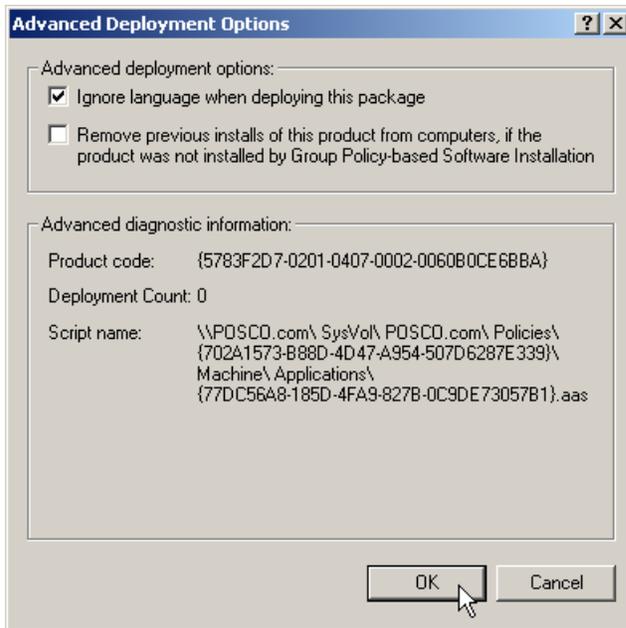


An *Open* window is displayed and the location opened is the *AdminImage* folder created by the NIW. Select the *<Products>* MSI file and click *Open*.

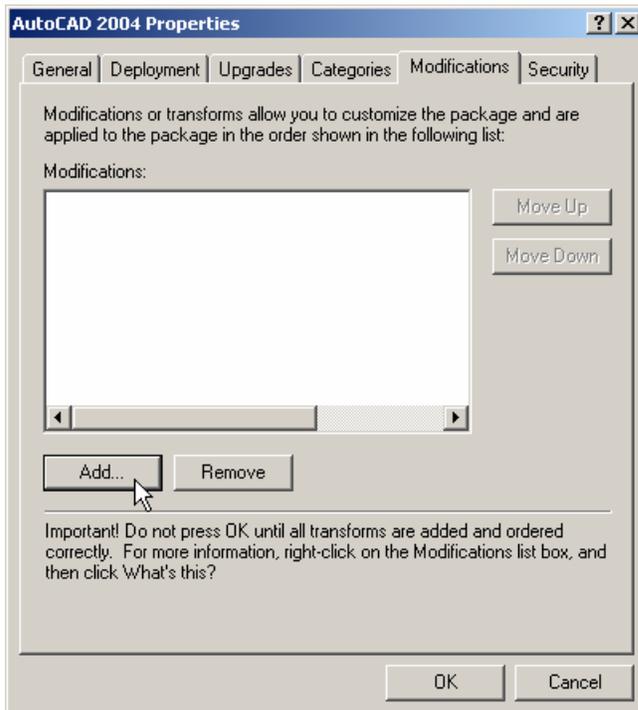


The *AutoCAD Properties* window is displayed.

11. (Only required if installing a language version of AutoCAD that is not the same language as the Operating systems be used. For example: Installing a German build of AutoCAD on English version of the operating system).
In the *AutoCAD Properties* window, select the *Deployment* tab and click the *Advanced* button. The *Advanced Deployment Options* window is displayed.
12. (Only required if step 11 above is used). In the *Advanced Deployment Options* window, check "Ignore language when deploying this package". Click OK.



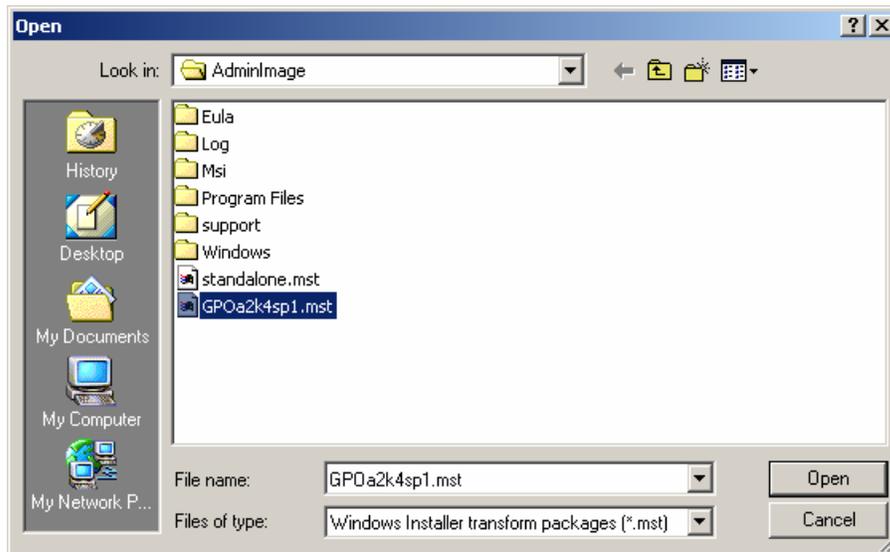
13. In the *AutoCAD Properties* window select the Modifications tab.
14. In the Modifications tab click the *Add* button.



An *Open* window is displayed.

15. In the *Open* window select *GPOa2k4sp1.mst* and click *Open*.

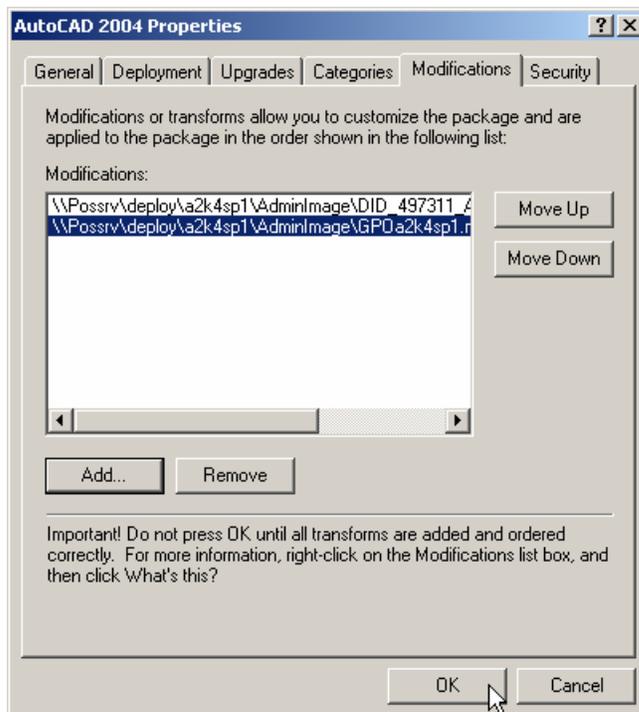
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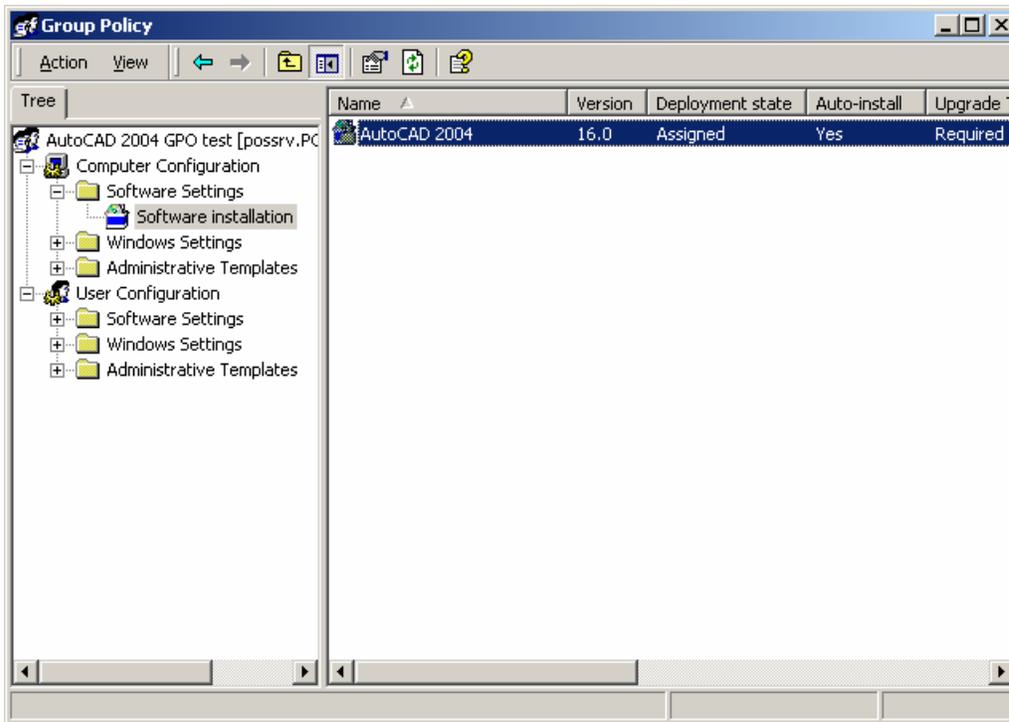
You are returned to the *AutoCAD Properties* window with the MST file selected in the Modifications list.

16. Click the *Add* button again and select the MST file created by the NIW in the *Open* window. Click *Open* to return to the *AutoCAD Properties* window. The MST file created by the NIW now appears in the list.

NOTE: The order of in which steps 15 and 16 are executed are not important at this time. Should another transform (MST) file be released, it may be important to control the order.



17. Click *OK* to close the *AutoCAD Properties* window and return to Group Policy window.



The newly created package should appear in the right-hand pane when *Software installation* is selected in the left-hand pane of the Group Policy window. You can close the Group Policy window and the TEST Properties window. You are now ready to install AutoCAD to a workstation contained in the OU for which the GPO has been applied.

Verifying the GPO installs AutoCAD

Reboot a computer contained in the OU where the GPO has been created. During the boot up process you will see:

Applying software installation settings ...

Installing managed software *AutoCAD*

These messages appear in the startup message windows that are displayed after the operating systems logo screen.

At the completion of the boot up process, you will be at the system login screen. Login and verify that AutoCAD product runs.

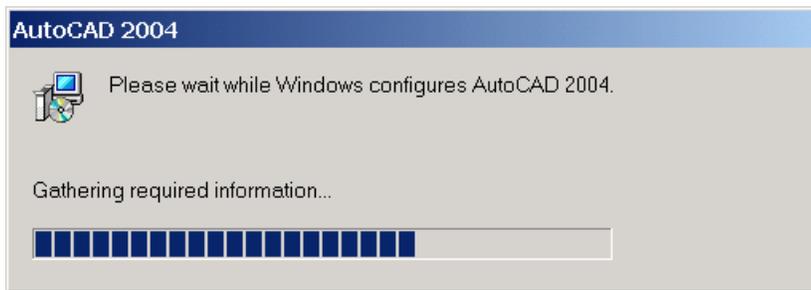
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NOTES:

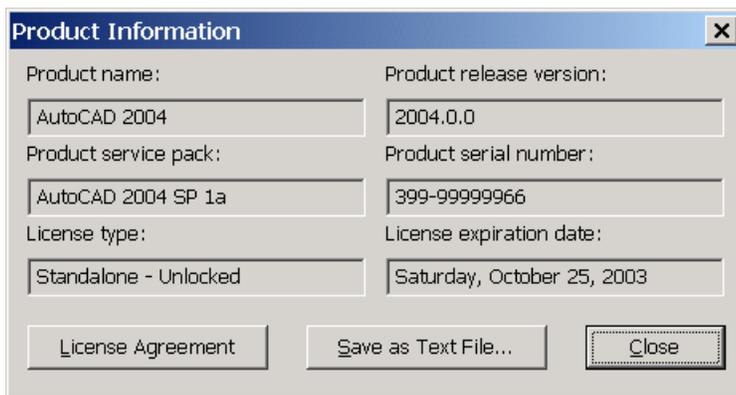
- It is very important that no other group policy or group policy settings be changed. Changing settings without completely understanding what the setting does can cause conflicts that result in the installation failing.
- Group policies add entries into the systems event log. Installation messages appear under the Application Event log. This is a good place to see if the installation succeeded or failed. If failed, it may point you in the direction of where to correct the problem.

Verify that AutoCAD runs

Double-click on the AutoCAD icon. AutoCAD should start a second time user installation.



At the completion of the setup, AutoCAD will be up and running. If your deployment included Service Pack go to Help | About | Product Information and verify that service pack has been applied.



NOTE: The Product Information dialog is different depending if you are running a stand-alone version of AutoCAD, Network version of AutoCAD or software locked version of AutoCAD. The example above is from a stand-alone deployment.

You can also run `_VERNUM` at the command prompt. `_VERNUM` will return version number (build) of AutoCAD. AutoCAD 2004 with no service pack is "V.0.86" with SP1 it is "V.1.22".

Conclusion:

As we saw in class, it is fairly simple to use a Group Policy to install AutoCAD 2004 to a workstation. In class, we also saw how to use the Network Installation Wizard to create a deployment to be used by a GPO. This paper provides the steps required to create a GPO to be used in installing AutoCAD. This paper did not cover all the different features of GPO but provides an outline of the recommended method on how to install AutoCAD 2004 through a group policy.