Deploying Office 2000

The new Windows Installer means you need to learn new procedures for installation, but once you get to grips with it you should find it more efficient than the old, Acme Setup program. We explain how to use Windows Installer to install Office 2000 over the network, and which tools from the Office 2000 Resource Kit you will find invaluable.

By Mike Lewis

At first glance the procedure for installing Office 2000 seems more complicated than for earlier versions. The familiar Acme Setup program has gone and is replaced by the new Windows Installer (which will eventually be used for all major Microsoft applications and will also be an integral part of Windows itself).

The new installer has an unfamiliar user interface, and takes a somewhat different approach to customisation. You will need to spend some time getting to know it before you can embark on a large-scale deployment of the Office suite. However, once you have understood how it works you'll find that the new system has several advantages. In particular, it gives much greater control over the way in which the suite is deployed.

For example, in Office 97 you could let users run applications from their hard disks or from a file server, but you could only make that choice for the suite as a whole; in Office 2000, you can specify the run-time locations of each individual application or component.

The installation procedure is also much easier to customise. Instead of having to edit INF and STF files, you now use a wizard to fine-tune almost every aspect of the process. This makes it especially easy to create multiple install scenarios, where different groups of users have similar, but not identical, requirements.

Other advantages include a new Installed On First Use option which lets you postpone installing specific components until the user actually needs them, a Detect And Repair feature which could eliminate many of the headaches associated with missing or corrupted files, and better control over the removal of obsolete components.

Standalone Install

To understand how Office 2000 deployment works it helps to be familiar with the basic setup procedure, as seen by a standalone user installing the suite from the Office CD.

When you insert the CD and run SETUP.EXE for the first time you are greeted with two simple options: Install Now, which runs a typical install; and Customise, which lets you select the components to be installed and make certain other choices. (If an earlier version of Office is already installed, the first of these choices will be labelled Upgrade Now.)

If you choose Customise, there are four further choices:

- **Installation Location.** The default location is C:\Program Files\Microsoft Office. You can designate a different one here.
- **Remove Previous Versions.** The default action is to remove all previous versions of the Office applications. If you chose a different install location in the previous step, you will be able to select individual applications to retain.
- **Web Browsing Support.** By default, Setup runs a standard install of Internet Explorer 5.0 (if not already present), and makes this the default browser. In a custom install you can choose a minimum install of IE 5.0 instead, or you can elect not to install it at all. Whatever choice you make here, you can subsequently use Internet Explorer's own setup utility to add or remove IE components.
- **Select Features.** This is where you specify how you want to install each component of the suite.

It is the last of these steps which users often find the most difficult. Essentially, you see a list of the Office components, presented in the form of an expandable tree (Figure 1). By clicking on the icon to the left of a component's name you can choose the component's "installation state", which is one of the following:

- **Run From My Computer.** This installs the component on your hard disk, in the directory specified in the first step of the custom install.
- **Run All From My Computer.** As above, but all child components of the selected component are also installed on the hard disk.
- **Run From CD.** The component will not be installed on the hard disk but can still be invoked from within the application. When you do so, you will be prompted to insert the CD, if this is not already present. (When installing Office from a network server, as described below, this option is replaced by Run From Network.)
- **Run All From CD.** The component, and all child components, will be run from the CD. (Again, this is replaced by Run All From Network, where applicable.)
- **Installed On First Use.** Setup will not install the component, but you will still be able to invoke it in the application. The first time you do this the component will be installed

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automatically. If the installation is from a network server you will not be aware that it is taking place (except for a short delay). If installing from CD, you will be prompted to insert the disk if it is not already present. Note that this feature is only available where supported by the operating system; see the text box "Windows Installer Shortcuts" for details.

● **Not Available.** Setup will refrain from installing the component, and the user will not be able to invoke it from the default menus or toolbars. If you try to invoke it in some other way (such as from a custom toolbar) you will see a message prompting you to re-run Setup.

Remember that these options are available at all levels of the tree: the entire suite, individual applications, and components within applications. So you could install Word on the hard disk, but stipulate that PowerPoint is to be installed on first use; or you can make the same choices at a more detailed level, such as for individual templates or add-ins within Excel. However, you cannot install a component on My Computer or run it from CD or the network if one of its parent components is installed on first use. If you try, the parent will be reset to the same state as the child.

Network Installation

As a support person, you are more likely to deploy Office 2000 to a group of users, rather than let each person run Setup on their own. As with previous versions, the usual way to deploy Office 2000 to multiple users is to run an administrative install to a network server, then let users run SETUP.EXE from their individual workstations. In summary, the steps are as follows:

1 You start by running an administrative install to a file server. This creates a central "installation point", containing all the files needed to install Office 2000 on individual workstations.
2 Optionally, you use the Custom Installation Wizard to customise the

installation of the individual copies.
3 The users run Setup from the installation point. This installs the suite on their workstations.

The default options for installing the suite are held in a file known as a package (extension MSI). In the case of Office 2000 the package is called DATA1.MSI. You cannot edit this file. Instead, you customise the setup by running the Custom Installation Wizard. This creates another type of file, called a transform (extension MST). Together, the package and the transform contain everything that the installer needs to know about the way the suite is to be installed.

You can create as many transforms as you like. If you want to specify different install scenarios for different groups of users you can create a separate transform for each group. To indicate which transform is to be used in a given case, you either arrange for the user to specify it as a command-line parameter to SETUP.EXE, or you specify it yourself by editing an INI file.

You can also include certain customisation options directly in the command-line parameters or INI file, and thus avoid having to create a transform at all. This approach might be easier when only a few aspects of the process are to be customised. Alterna-
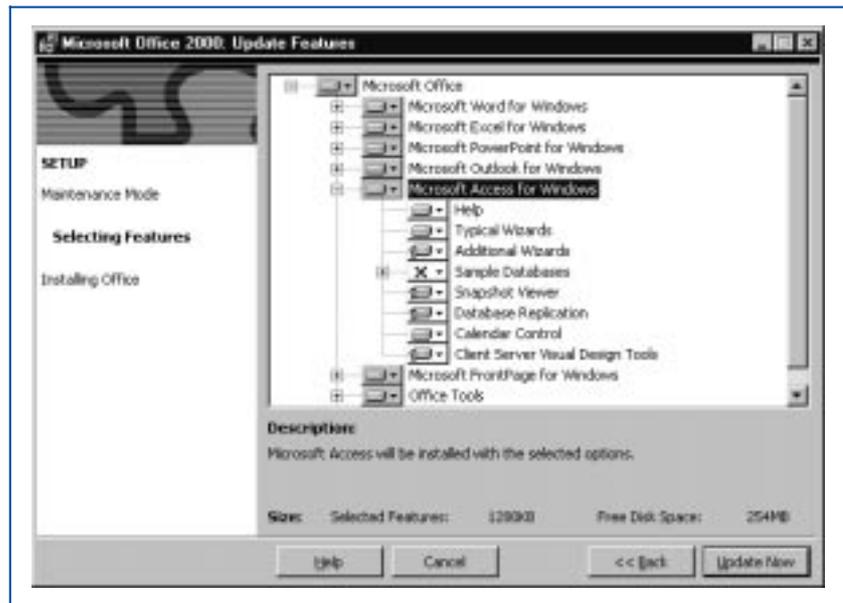

Figure 1 - The screen for setting the install states of each component.

	Default	Full	Admin
Core applications	240	426	554
Publisher	189	402	642
PhotoDraw	98	98	556

Default refers to the space needed on the user's hard disk, assuming default installation states for all components. Full refers to the space needed on the user's hard disk if all components are installed on My Computer. Admin refers to the space needed on the server for central installation point.
All figures are in MB and are approximate.

Figure 2 - Disk space requirements.

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tively you can use a transform to specify the options which apply to most users, and then override these via the command-line or INI file for certain groups or individuals.

Administrative Install

Whatever approach you take to customisation, your first step will be to run an administrative install. To do so, start by creating a shared directory on a server to which the users will have access. This directory will constitute the installation point. Make sure that there is enough disk space for it (see Figure 2) and that you have write access to it.

Next, insert the Office 2000 CD-ROM. If AutoPlay is enabled, this will launch the Setup program. Close this straight away, then launch it again by using this command: SETUP.EXE /A DATA1.MSI. The program will prompt you for various items, including an organisation name (this can be overridden later) and for the location into which you wish to install. For this second item, specify the shared directory which you have just created. Be sure also to enter the CD Key when prompted for this, otherwise the users will have to enter it when they run Setup on their own.

> ### *"The familiar Acme Setup program has gone and is replaced by the new Windows Installer."*

On completion, the directory will contain all the files which the users will need in order to install Office 2000 from their own PCs. Relevant files include the Setup program itself and a modified copy of the package file (DATA1.MSI).

The installation point serves two other purposes. If any components are configured as Run From Network it is from this directory they will be launched. The directory is also the file source for the Installed On First Use and the Detect And Repair features. For any of these features to work, it follows that the directory must continue to be available to users after they have completed the initial setup procedure.

If you cannot give all users permanent access to this directory - or if you want to create additional copies of it for standby purposes - you can replicate it on other servers. To do so, either repeat the administrative install or copy the directory to another location. Keep in mind that the directory contains several subdirectories, so be sure to copy the entire hierarchy.

Customising

The second step in the deployment process is to specify your chosen customisation options. The easiest way to do that is to use the Custom Installation Wizard. This tool is not part of the Office suite, but is available with the Office 2000 Resource Kit (see the text box).

The wizard lets you customise almost every aspect of the installation. For example, you can fine-tune the way the users will interact with the setup program (if at all), and you can designate the extent to which they will be allowed to override your initial choice of components. All the available options are described later in this article.

The end product of the wizard is a transform - that is, an MST file which contains your customisation options. If you want to set up multiple install scenarios you can run the wizard again to create completely new transforms, or you can use it to open an existing transform, specify the changes, and save it under a new name.

Setup On Workstations

The final step is for each user to run the copy of SETUP.EXE which is in the root of the installation point. If they do this simply by double-clicking on the icon they will run a standalone install, just as if they were installing from the Office CD. This is fine if you have not customised the install in any way, and if you are happy to give the user complete control over the process.
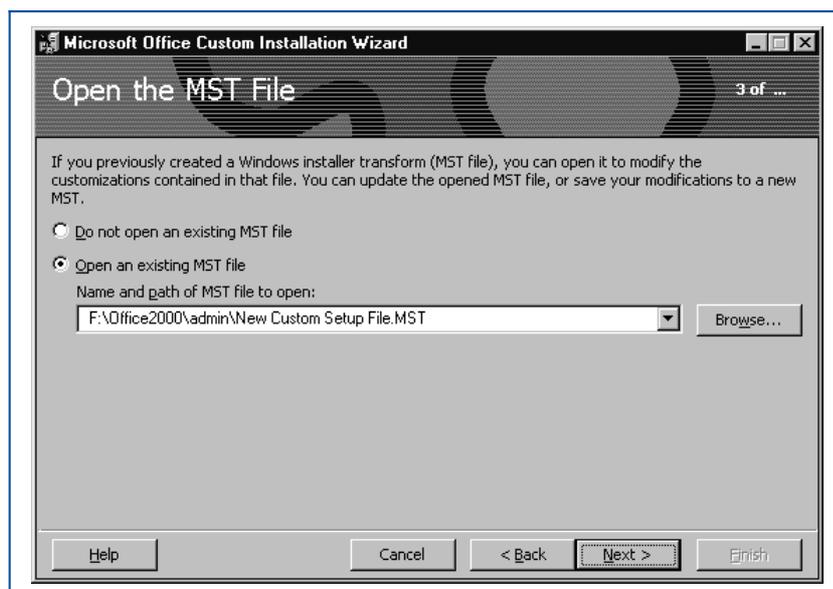
However, it's more likely that

Figure 3 - One of the initial steps of the Custom Installation Wizard.

you'll want to impose various constraints on the user, which means you will need to stipulate that a transform is to be used. One way of doing this is to have the user specify the transform in a command-line parameter to SETUP.EXE. For example, if the transform was named GROUP1.MST and was in the same directory as SETUP.EXE, the command line would be:

```
SETUP.EXE TRANSFORMS = GROUP1.MST
```

Having specified a transform, you will probably want the user to run Setup in "quiet mode" - that is, without having an opportunity to interact with it in any way. You can do this by adding the /Q flag to the command line. Without this flag your customisation options would still be applied, but the user would be able to use Setup to override some of them. If this is not what you want, add /QN to run Setup with no user interaction, /QB to display only basic progress indicators and error messages, or /QR to display more detailed progress indicators and messages. Adding + to /QN or /QB also causes a completion message to be displayed.

Rather than relying on users to correctly compose the command line, you could provide a DOS batch file or a Windows shortcut to do it for them. You can manually add this to the root of the installation point, and instruct the users to double-click on it to launch the setup process. The other way of designating the transform is to edit the SETUP.INI file, which is in the root of the installation point. The filename should be specified in the MST1 entry within the [MST] section. For example:

```
[MST]
MST1=GROUP1.MST
```

You can also use the INI file to specify the extent of user interaction with the Setup program. This is controlled by the Display entry within the [Display] section. Settings of None, Basic and Reduced correspond to /QN, /QB and /QR respectively. For example:

```
[Display]
Display = None
```

Editing the INI file in this way is a good approach if the same customisation options apply to all users. Once you have edited the file, a user can run SETUP.EXE with no command-line parameters. If you have multiple install scenarios you can create several copies of the INI file. Then, to specify which one to use in a given case, add the /Settings flag to the command line, like this:

```
SETUP.EXE /SETTINGS MYSETUP.INI
```

There are several other options which can be specified in the INI file and on the command line. In some cases you might be able to customise the entire installation in this way, and therefore dispense with the transform.

Alternatively, you can use the command-line and INI settings to override the transform. For example, you might use the transform to specify the installation path which applies to most users, but then override this for an individual user by adding the Install-Location parameter to the command line. In general, command-line parameters take precedence over the INI file, which in turn takes precedence over the transform.

For details of all the options available as command-line parameters or in the INI file, see the file called SETUP-PREF.XLS in the Office 2000 Resource Kit.

Custom Choices

Now let's take a closer look at the various choices which the Custom Installation Wizard allows you to make. The wizard has 17 steps, although not all of these will be relevant in all cases. The first and last steps are simple information screens. The others are described below.

Packages And Transforms

In steps 2 to 4 of the wizard you specify the names of the package and transform files. The package would normally be the copy of DATA1.MSI in the root of the installation point. If you want to experiment with the wizard you can copy the package from the Office CD to a working directory and specify the name of the copy here. The wizard does not alter the package in any way.

For the transform, you can choose either to open an existing file or use the default settings from the package (Figure 3). In the first case you can opt to save the changes in the same file or in a new one. If you want to experiment,
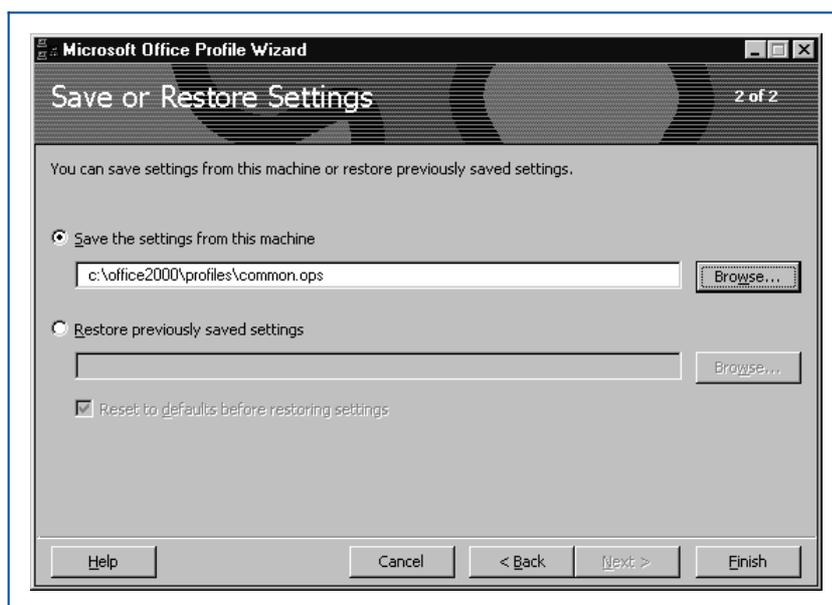

Figure 4 - The Profile Wizard.

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you can create a transform in a working directory and delete it when you have finished.

Path And Organisation

Next you specify the default installation path and organisation name. The path is the location on the user's computer where Office is to be installed. You can specify an absolute location here, or you can include the <Program Files> keyword (including the angle brackets) to designate the standard Program Files folder on the user's system.

The organisation name is the one which appears in the applications' sign-on screens and About boxes. It defaults to the name you specified when you ran the administrative install, but you can override this within the wizard. Alternatively, you can specify it in the SETUP.EXE command line (using the CompanyName parameter) or in the INI file. However, if you enter or edit the name in the wizard, you will not be able to override it in the command line or INI file.

Previous Versions

In the next step, you choose how Setup is to deal with old versions of the Office applications. If you select "Default Setup Behaviour", Setup will ask the user for permission to delete any old versions which it detects. If the user agrees, all old versions of all applications will be removed - the user will not be able to choose specific components to delete.

If you select "Remove the following..." you will be able to specify (within the wizard) the specific applications and versions which you want Setup to remove. In these cases, the user will not be prompted for confirmation. If you enable "Obsolete Microsoft Office Files", Setup will also clean up any files, registry entries and

> *"You could install Word on the hard disk, but stipulate that PowerPoint is to be installed on first use; or you can make the same choices at a more detailed level, such as for individual templates or add-ins within Excel."*

shortcuts belonging to versions which are no longer installed. This is useful if the user had previously deleted an old version without going through the proper uninstall procedure.

A separate tool, called the Version Removal Wizard, is available in the Office 2000 Resource Kit. You can use this to selectively delete old applications before installing Office 2000.

Installation States

This next step is similar to the screen which users see when they run a standalone custom install. It lets you define the installation state (Run From My Computer, Installed On First Use, etc) for each application or component. If the user runs Setup in quiet mode, or if they run it interactively but select Install Now from the opening screen, then the choices you make here will be imposed on the user.

If you allow users to run Setup interactively you will not be able to prevent them from doing a custom install. They could therefore go to the installation state screen and override the choices you make in the wizard. However, if you right-click on a component within the wizard and select Hide, the corresponding item will not be visible within Setup, and so the user will not

be able to override the installation state which you specify. (Right-click and select Unhide to reverse this.)

Whenever you change the installation state of an item within the wizard, the item name appears in bold. If you click on Reset, all these items are returned to their initial settings. As a further convenience, if you add /X to the command which launches the wizard, the component tree will appear fully expanded.

Application Settings

Step 8 of the wizard is concerned with customising the actual applications rather than the setup process. This topic is described in more detail later (see "Application Options" below).

Adding Files To The Install

You can use this next step to specify additional files that you want to install when the user runs Setup. These might include custom templates, additional documentation files, a corporate logo, and so on.

To use this feature, click on Add and navigate to the file in question. Then specify where the file is to be installed on the user's system. You can enter an absolute path here, or you can include a generic keyword in angle brackets to represent a standard folder, such as <Program Files> or <Application Data>. (You can select these keywords from a drop-down list.)

The file you are adding must be available at the time that you run the wizard, but it does not have to be stored in the installation point, nor do

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CD 1 - The core applications, including IE 5; Microsoft Database Engine.
CD 2 - Microsoft Publisher 2000; Microsoft Small Business Tools.
CD 3 - PhotoDraw; Office Server Extensions; IE 4.01/SP 1a; NT 4.0/SP 4; NT 4.0 Option Pack.
CD 4 - Further PhotoDraw content.

Figure 5 - Office 2000 Professional CDs.

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you need to worry about making it available during setup. That's because the wizard copies the entire file to the transform. Thus, if you alter the file after you have run the wizard, the changes will not be reflected in the copy which the user receives. If this is a problem, you should re-run the wizard, remove the file, and add it back again.

Registry Entries

Step 10 in the wizard lets you add or alter entries in the users' registries. You will not normally need to do this, given that most Office-related registry entries are updated automatically when the user sets options within the applications. However, if you do need to change any registry entries you can do so here.

To add a registry entry, click on Add and select the various options in the resulting dialog. Alternatively, if you have a REG file which contains the required entries, click on Import and navigate to the file. The entries from the file will be displayed within the wizard; you can then click on Modify to alter any of them.

Shortcuts

The next step lets you modify the way in which Setup installs shortcuts. This mainly affects the standard application shortcuts which appear in the Start menu, on the desktop and in the Office Shortcut bar. But you can also create new shortcuts, which you can direct Setup to install in any reasonable location. For example, you might want to create shortcuts to specific documents and store these in a desktop folder.

For each shortcut you specify the target, the shortcut's location and certain other details. The target is usually either a command which launches an application, or the name of a document. You can use explicit filenames and paths here, or you can include generic keywords to represent standard Office applications and tasks.

For example, to create a shortcut which launches Word and runs a macro named PrintAll, you could either type the full path to WIN-WORD.EXE (on the user's computer), followed by /m and the name of the

macro. Or you could enter the following: <Microsoft Word> /mPrintAll. Similarly, the location can be specified either as an explicit path (again, on the user's computer), or by including a keyword to identify a standard location. So to install a shortcut in a desktop folder called Word Macros, you could specify the location as <Desktop>\Word Macros.

By default, Setup creates the shortcuts as Windows installer shortcuts (provided these are supported by the operating system). As explained earlier, this type of shortcut is needed to support the Installed On First Use option. If you prefer Setup to install standard shortcuts, clear the "Create Windows Installer Shortcuts... " option. This checkbox also has implications for roaming users; for details, see the Help page for this step of the wizard.

Additional Servers

If you have replicated the installation point on other servers, you can list the server names here. If the original server becomes unavailable at any point, these additional servers will be accessed, in the order in which they appear in this list. These servers can be used as alternative installation points for Setup, for running components directly from the network, and as the file source for Installed On First Use and Detect And Repair.

Installations And Programs

Step 13 lets you specify additional programs to be run after Setup has finished. This is typically used to run

setup programs for other applications, but you cannot run further instances of the Windows Installer here. Setup will run whatever command lines you specify, in the order in which they appear. Each command is run after the previous one has finished, but Setup makes no attempt to check that a command has been successful.

Customise Outlook

By default, Outlook 2000 prompts the user for profile and account settings the first time it is run. If you prefer to specify these details yourself, select "Customise Outlook Profile And Account Information" here, then go ahead and make your selections.

Customise IE 5

This next step is concerned with installing and customising Internet Explorer 5. For more details, see "IE Setup", below.

Setup Properties

The final step of the Custom Installation Wizard lets you specify values for individual settings (or "properties") used by Setup. Many of these properties correspond to settings which you make in other parts of the wizard, so there is usually no need to worry about them here. But some of the properties cannot be set from elsewhere in the wizard.

For example, there are a number of properties which let you control the text which users see when they run Setup interactively. All these properties are described in the Help screen for this step of the wizard, and also in the

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Windows Installer Shortcuts

To take advantage of the Installed On First Use feature, the operating system must support Windows Installer shortcuts. This support is available in the following systems:

● Windows 98
● Windows 95 with IE 4.01/SP 1
● Windows NT 4.0 with SP 3 and IE 4.01/SP 1

On Windows 95 and NT you must also have Active Desktop installed (but not necessarily enabled).
Where Windows installer shortcuts are not supported, any components which are configured to be installed on first use will in fact be installed on the hard disk.

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SETUPREF.XLS file in the Office 2000 Resource Kit.

Application Options

Once you have run an administrative install and decided how you want to customise the setup process, you can turn your attention to customising the actual Office applications. The easiest way to do that is to use another tool from the Office Resource Kit: the Profile Wizard (Figure 4). This lets you record and replicate the settings of many of the options within the applications, including the initial state of the menus and toolbars, the settings in the Tools Options dialogs, entries in custom dictionaries, and entries in Autotext.

In summary, these are the steps to follow:

1 Choose a computer to use as a model. Install the Office applications on it (you can do this by running Setup directly from the CD), then set all the options within the applications as you want them to appear on the users' systems. For example, make any relevant choices in the Tools Customise and Tools Options dialogs.
2 On the same computer, run the Profile Wizard (with no command-line parameters). When prompted to do so, select "Save the settings from this machine" and specify a file to hold the settings. The file will have the extension OPS. Click on Finish.
3 Apply the OPS file to the users' systems.

For the last of the above steps, you have two options. The first, which is slightly easier, is to incorporate the OPS file into the transform. To do so, run the Custom Installation Wizard, select "Get values from an existing settings profile" in step 8, and specify the name and path of the OPS file.

The other method is to tell the transform to run the Profile Wizard again, after Setup has finished. The wizard will then apply the settings to the users' systems. To achieve that, go to step 13 of the Custom Installation Wizard. This is where you specify additional programs to run after the install. Enter a command similar to the following:

> *"Rather than relying on users to correctly compose the command line, you could provide a DOS batch file or a Windows shortcut to do it for them. You can manually add this to the root of the installation point."*

```
PROFLWIZ.EXE /Q /R GROUP1.OPS
```

This will run the Profile Wizard in quiet mode (the user will not see it running) and apply the settings from GROUP1.OPS. (This assumes that both the wizard and the OPS file are in the root of the installation point. If they are not, include the appropriate paths in the above command.)

The advantage of the second method is that, if you need to change the settings in the OPS file, you won't need to alter the transform. You can also combine the two methods, in which case the settings applied in the second method will override those in the first.

Step 8 of the Custom Installation Wizard has a checkbox labelled "Migrate User Settings". If the users are upgrading from Office 97, this instructs Setup to apply the Office 97 settings to Office 2000. These settings will take precedence over the OPS file specified in step 8, but not the one run after Setup has finished.

Keep in mind that the OPS file only affects initial settings. It does not prevent users altering settings or customising the applications in other ways from within the user interface. If you want to permanently change the way that the applications work, you can do so by using system policies. For further details see the Office 2000 Resource Kit.

IE Setup

Although Internet Explorer is not essential for running Office 2000, there are several Office features which will not work properly without it. For most of these, any version of IE (from 3.0) will be acceptable, but there are a few

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Office 2000 Resource Kit

Several of the utilities and information files mentioned in this article are available with the Office 2000 Resource Kit. They include:

● Custom Installation Wizard
● Profile Wizard
● Version Removal Wizard
● SETUPREF.XLS (contains details of SETUP.EXE command-line parameters, SETTINGS.INI, and the properties specified in the final step of the Custom Installation Wizard)
● IE5FEATS.XLS (contains details of features which depend on IE 5)

The Resource Kit consists of an 872-page manual and a CD. It is published by Microsoft Press (ISBN 0-7356-0555-6), and is available from bookshops for around US$60. The content is also available on Microsoft Technet and at **www.microsoft.com/office/ORK**.

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features which insist on IE 5 (a list of these can be found in the file IE5FEATS.XLS in the Office 2000 Resource Kit). The only major application which cannot run at all without the browser is Outlook 2000; this needs IE 4.01 or later.

By default, Office 2000 Setup asks the user for permission to install IE 5 if it is not already present, or upgrade to it if an earlier version is detected. If you want to override this behaviour, go to step 15 of the Custom Installation Wizard.

If you want Setup to refrain from installing IE 5, select "Do not install Internet Explorer 5". The wizard will display a warning message, but will still accept your choice. If you want Setup to install IE 5 without prompting the user, select "Upgrade to Internet Explorer 5" and "Do not prompt the user to install Internet Explorer 5".

IE 5 has its own setup program, separate from Office 2000 Setup. It is called IE5SETUP.EXE and is based on Acme Setup rather than the new Windows Installer. The Office 2000 administrative install places this program in a subdirectory of the installation point. If you choose to let Office Setup install IE 5, you must ensure that the path and filename of IE5SETUP.EXE are correctly specified in step 15 of the Custom Installation Wizard.

If you have installed the Internet Explorer Administration Kit (IEAK) you can use it to customise the installation of IE 5 from within the wizard. To do so, click on the Customise button in step 15. If you have not yet installed the IEAK, you can do so by running IEAK5.EXE from the \IE\EN directory on the Office CD.

If you prefer your users to have IE 4.01 instead of IE 5, you can install this by running IE4SETUP.EXE from the \IE401 directory on Office 2000 CD 3. This will install IE 4.01/SP 1a.

Premium Edition

The deployment issues described so far apply to the core Office 2000 applications - that is, Word, Excel, PowerPoint, Access, Outlook, Front-Page and Internet Explorer 5. If you have purchased Office 2000 Premium Edition you will have several other ap-

plications and utilities to install. These do not necessarily follow the same setup procedure as the main applications (see also Figure 5).

Publisher

Although you install Publisher 2000 via the Windows Installer you must do this separately from the main Office Setup. You can perform an administrative install in the usual way - that is, by adding /A to the SETUP.EXE command line. To prevent problems with duplicate file names it is best to create a separate installation point for Publisher (and for any other applications which you are installing in this way).

Publisher has its own package file, called DATA2.MSI. You can use the Custom Installation Wizard to create transforms for Publisher, and these can be applied to individual users and groups in the same way as with the main applications. When you install Publisher 2000 you also have the option of installing the Microsoft Small Business Tools.

PhotoDraw

PhotoDraw uses the old Acme Setup program. You install it from CD 3, either from the AutoPlay screen or by running SETUP.EXE from the root directory. To perform an administrative install, run the copy of SETUP.EXE in the \PHOTODRW directory, and specify the /A flag on the command line. Because it does not use the Windows Installer, PhotoDraw has no package or transform files, and the Custom Installation Wizard cannot be used. Depending on which options you choose during Setup you might also need CD 4, which contains additional clip art, templates etc.

Certain components must be present before you can install PhotoDraw. These are IE 4.0 or later, DirectX 6.0 (for Windows 9x), and NT 4.0/SP 3 (if running under NT). If you install Photo-Draw from the CD, these components will be installed as required, but this is not the case when performing an administrative install or installing users' copies from the installation point. In those cases, you can install the pre-requisites manually; they all have their own Setup programs on CD 3.

OSE And MDE

You can install Office Server Extensions (OSE) from the AutoPlay screen in CD 3 (or, if you have the Professional Edition, by running SETUPSE.EXE in the root of CD 1). It is installed via the Windows Installer and, as with Publisher, you must run it separately from the main Office Setup.

By default, OSE Setup also installs the Microsoft Database Engine (MDE). If you prefer not to install the MDE, use the following command line to launch OSE Setup: SETUPSE.EXE /ND. To install the MDE independently of OSE, run SETUPSQL.EXE from the \SQL\X86\SETUP directory on CD 1. The MDE uses InstallShield as its setup program.

The MDE has the following prerequisites: IE 4.01/SP 1 or later, either Access 2000 or OSE, DCOM 95 (for Windows 9x), and NT 4.0/SP 4 (if running under NT). OSE is intended to be used with an Internet server, such as Microsoft IIS. For details see the OSE documentation.

Conclusion

Deploying Office 2000 to multiple users is clearly far from trivial. You need to understand the new Windows Installer, and learn how to customise the setup using the various tools available. However, once you have passed the learning stage, you will find the process more flexible, less labour-intensive and generally easier to manage than in earlier versions. Given these benefits, it is worthwhile putting some effort into mastering the issues.

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