Chapter 18
Distributing Your Application

Objective

When you complete this lesson, you will be able to create a set of installation disks for your CA-Visual Objects application for final distribution.

Overview

The final stage of the development cycle involves distributing your application. CA-Visual Objects provides two utilities, Install Maker and CA-Installer, that allow you to distribute your applications in a timely and professional manner.

Install Maker   Your CA-Visual Objects applications are made up of many files (for example, .EXE, .DLL, .INI, and data files). Install Maker helps you determine what files are necessary to run the application and allows you to quickly create disk images for the application.

Install Maker automates part of the file gathering process. By using information which is stored in the repository, it can deduce which files should be included on the installation disks (system DLLs, RDDs, and so on). You only need to specify the files you create—such as data files, report files, and help files.

Install Maker also allows you to specify information for use at installation time, such as:

■   The default installation (or target) directory

■   The name of the Program Manager group that will contain your application

■   Files to be included as items in the Program Manager group

This information is then used by the CA-Installer program.

CA-Installer   As part of the disk generation process, Install Maker includes the CA-Installer program (SETUP.EXE) on your first distribution disk. This is the program your users run to install the application. It allows your program to be installed in much the same way as CA-Visual Objects.

Exercise

In the following exercise, you have the opportunity to create the distribution disks for the South Seas Adventures application using Install Maker. You can then install the application from these disks using CA-Installer.

Modifying SSA.INI Settings

Before generating the executable file and creating the disks, you must change a setting in the SSA.INI file. The initial default setting for the [Runtime] CreateIndexes setting is No, which avoids reindexing the data files each time you start the application.

However, since the index files will not be included on the install disks, you must change this setting so that indexes will be created when the application is started for the first time on the end user's machine.
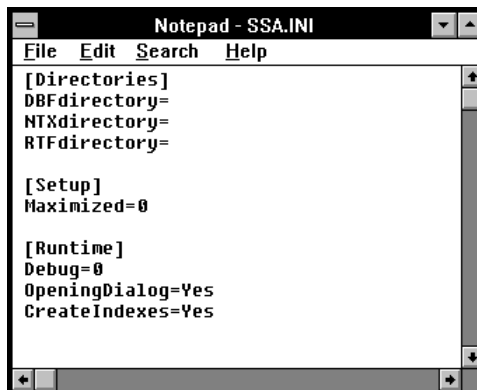
The App:Start( ) method currently contains the following code:

```
// Verify Indexes

oShellWindow:VerifyIndexes()
```

This causes the SSAShellWindow:VerifyIndexes() method to check the CreateIndexes setting in the SSA.INI file. If the setting is Yes, the OptionsReindex( ) method is called. In this method, all the index files are regenerated by using the CreateIndex() method for each index file. When this is completed, the [Runtime] CreateIndexes setting is reset to No.

Change the CreateIndexes setting to Yes, before the SSA.INI file is copied to the installation disks, as follows:

1. Return to the Program Manager and open the Notepad utility.

2. Select the Open command from the File menu and change to the CA-Visual Objects SAMPLES\SSATUTOR subdirectory.

3. Change the file type to All Files and select the SSA.INI file.

4. Choose OK and modify the last line to read CreateIndexes=Yes, as follows:

5. Select Save from the File menu to save the change.

6. Close Notepad and return to CA-Visual Objects.

Generating the Executable

Before you begin this process, you must create the application's executable file:

1. Select the South Seas Adventures application from the Application Browser.

2. Choose the Make EXE toolbar button.

3. After the .EXE file is generated, close CA-Visual Objects by double-clicking on its system menu.

    Note: Install Maker cannot run if CA-Visual Objects is open.
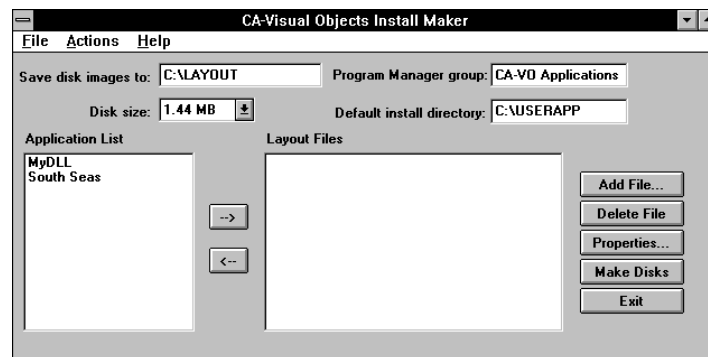
Using the Install Maker

Once the executable file is generated, you can prepare the distribution disks for the South Seas Adventures application:

1. Start Install Maker by double-clicking on its icon in the CA-Visual Objects Program Manager group.
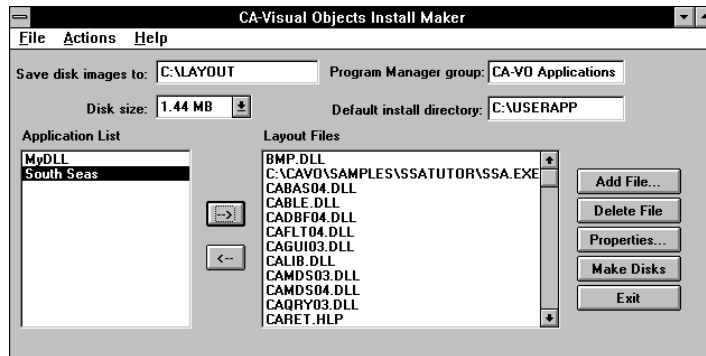

Install Maker

The CA-Visual Objects Install Maker dialog box appears:

The Application List list box displays all applications and DLLs that are contained in your CA-Visual Objects repository.

2. Select South Seas from the Application List and click on the right arrow button.

Using information from the repository, Install Maker populates the Layout Files list box with the system file names associated with this application, as well as the application's executable (in this case SSA.EXE):

If your application is made of many executable and/or user defined DLLs, you can specify more than one application. The South Seas Adventures application is now using a DLL you created in a previous lesson.

3. Select MyDLL in the Application List and click on the right arrow button. This includes the DLL file you created with the other layout files.

Disk Images

Instead of creating disks directly, Install Maker creates *disk images* on your hard drive. Each disk image resides in a subdirectory (DISK1, DISK2, and so on) under the specified directory, which Install Maker populates with the files required for installation.

1. To change the location of these disk images, select the Save Disk Images To edit control.

2. Type in a path name on your hard drive (for example, C:\CAVO\SAMPLES\SSATUTOR\LAYOUT).

Disk Size	You must also specify the disk size you are planning to use for installation disks.

To change the disk size, select the Disk Size drop-down list box and choose 1.44 MB.

Note: The Make Disks process, as described later, can be run for each disk format you require.

Program Manager Group	When your program is installed, you can specify a default Program Manager Group to be created for your application by following these steps:

1. Select the existing text in the Program Manager Group edit control.

2. Type **South Seas Adventures**.

Default Installation Directory	When your program is being installed, CA-Installer will prompt the user for a default drive and directory for installation and suggest your specification. To specify the target installation directory:

1. Select the existing text in the Default Install Directory edit control.

2. Type **C:\SSA**.

   The C: drive is the most common location. As for the directory you specify, it is created on your user's drive, if it does not exist, by the CA-Installer program. Your user also has the option of specifying a different directory.

Specifying Other Files for Installation

When you select the South Seas Adventures application and MyDLL to be included in the installation, most of the related files are automatically included in the Layout Files list box. For example, the executable (.EXE) file for South Seas Adventures, the .DLL file for MyDLL, and several other .DLL files are included for installation.

Other files needed to run the application, such as data files (.DBF), help files (.HLP), and initialization files (.INI), must be manually added to the list box.

Note: Index files do not have to be included since they will be generated the first time the installed application is run.

Let's add the additional files needed for the South Seas Adventures application from the CA-Visual Objects SAMPLES\SSATUTOR subdirectory, as follows:

1. Choose the Add command from the File menu.

   You are prompted with a standard Open dialog box.

2. Select the ACCINVC.DBF file from the SAMPLES\SSATUTOR subdirectory and choose OK.

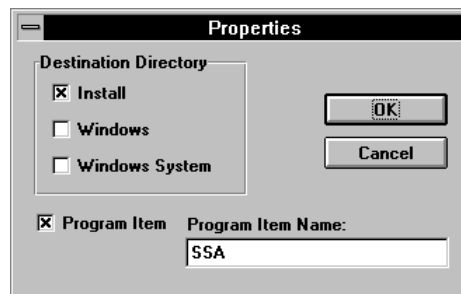3. Repeat steps 1 and 2 to include each of the files from the following list:

ACCINVC.DBF	INVHDR.DBF
ACCPAY.DBF	INVNTRPT.RET
ADVDTL.DBF	ITEM.DBF
ADVHDR.DBF	OUTSTPAY.RET
CADVRPT.RET	PAYMENT.DBF
CUSTLIST.RET	PAYRPT.RET
CUSTOMER.DBF	SSA.HLP
CUSTOMER.DBT	SSA.INI
EMPLOYEE.DBF	STATE.DBF
INVCRPT.RET	SYSKEY.DBF
INVDTL.DBF	TENDER.DBF

Specifying File Properties

There are a number of properties that you can specify for each file in the Layout list. Let's take a look at these:

1. Select the SSA executable (SSA.EXE) from the Layout Files list box.

2. Choose Properties.

    The Properties dialog box appears:

Destination Directory

From this dialog box, you can specify whether the selected file is to reside in the Install directory, the Windows directory, or Windows System directory. By default, your application executable file (SSA.EXE) is set to reside in the install directory.

Program Item and Program Item Name

The Program Item check box allows you to specify whether the file appears as a Program Item in the South Seas Adventures Program Group. By default, your application is set to appear as a Program Item.

You can also rename the name of the Program Item as you want it to appear in the Program Group, since Install Maker defaults to the file name minus the extension. You can set the Program Item name as follows:

1. Select the Program Item Name edit control and replace SSA with type **South Seas Adventures**.

2. Choose OK to accept the changes.

Although Windows applications require many files, typically only a few appear as icons in their Program Manager groups. For example, the South Seas Adventures application, as far as your user is concerned, is made up of the executable and the help files.

3. To change the file properties for the South Seas Adventures help file, select SSA.HLP from the Layout Files list box and then choose Properties.

4. Check the Program Item check box.

5. In the Program Item Name edit control, type **South Seas Help**.

6. Choose OK to accept the changes.

   By default, MYDLL.DLL will also have a program icon. To prevent this, perform the following steps:

7. Select MYDLL.DLL from the Layout Files list box and then choose Properties.

8. Click on the Program Item check box to remove the check mark.

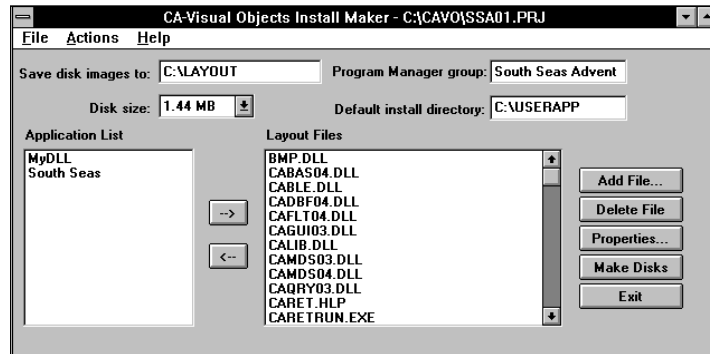9. Choose OK to accept the changes.

Creating a Project File

It is advisable to create a project file that stores, among other things, the list of files in the Layout Files list box. Let's create the project (.PRJ) file as follows:

1. Select the Save As command from the File menu.

2. Change the drive and directory to that of your CA-Visual Objects system directory (for example, C:\CAVO).

3. In the File Name edit control, enter **SSA01.PRJ** and choose OK to save the file.

You will see the file path on the Install Maker title bar, as follows:

If you need to create another set of disks, use the Open command from the File menu to load all the information from this project file (SSA01.PRG). If you make any modifications, you can then you can use Save As to create additional project files (such as SSA02.PRJ, SSA03.PRJ).

Now that you have saved the project information, you can create the disk images.

Creating Disk Images

Once you have defined all of the files required to run your application, you are ready to create the disk images:

1. Choose Make Disks.

While CA-Visual Objects is preparing your files, the Make Disks dialog box is displayed, with the name of the file being processed:

2. Once the process in completed, Choose Exit to shut down Install Maker.

Creating and Testing the Distribution Disks

The final steps are creating distribution disks from your disk images and testing the installation process to ensure you have not forgotten any files.

1. Create your disks by copying the contents of each DISK subdirectory to a separate disk, using the DOS XCOPY command or the Windows File Manager. Then, use the Label Disk command in the Windows File Manager (or the DOS LABEL command) to label your disks SSADISK1, SSADISK2, and so on.

2. After copying all disk images, insert DISK1 into drive A: (or B:).

3. From the Program Manager, choose the Run command from the File menu.

4. Type **A:\SETUP.EXE** (or **B:\SETUP.EXE**) in the Command Line edit control and choose OK.

5. Once the program is installed, you can test the application by double-clicking on its Program Item in the South Seas Adventures Program Group.

Important! To ensure proper testing of the installed, executable version of your application, you should test it on a computer that does not have CA-Visual Objects installed. Your testing at this phase should be at least as rigorous as the testing you performed on the application under dynamic execution.

Summary

In this lesson, you learned how to use CA-Visual Objects Install Maker utility to prepare your application for distribution.

Congratulations! You have now successfully completed all of the lessons for the South Seas Adventures tutorial. The information that you have learned will help you to create, manipulate, and distribute your own CA-Visual Objects applications.