

Cincom

gOOi FOR JAVA

User's Guide

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gOOi for Java™ User's Guide

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Cincom Systems, Inc.
55 Merchant Street
Cincinnati, Ohio 45246-3732
U.S.A.

PHONE: (513) 612-2300
FAX: (513) 612-2000
WORLD WIDE WEB: <http://www.cincom.com>

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We welcome your comments

We encourage critiques concerning the technical content and organization of this manual. Please take the [survey](#) provided with the online documentation at your convenience.

Cincom Technical Support for gOOi

FAX: (513) 612-2000
Attn: gOOi Support

E-mail: helpna@cincom.com

Phone: 1-800-727-3525

Mail: Cincom Systems, Inc.
Attn: gOOi Support
55 Merchant Street
Cincinnati, OH 45246-3732
U.S.A.

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About this book

Using this document

The purpose of this guide is to assist developers who want to Web-enable MANTIS® and AD/Advantage host applications. This document assumes that you are familiar with MANTIS and AD/Advantage. An understanding of the Universal Export Facility (UEF), which is common to both MANTIS and AD/Advantage, is also necessary.

Document organization

The information in this manual is organized as follows:

Chapter 1—Introduction

Provides a high-level discussion of gOOi for Java™ capabilities.

Chapter 2—Preparing to generate Java

Discusses preparation for Java forms generation and provides step-by-step procedures for tools that may be needed before generating Java forms.

Chapter 3—Generating Java

Provides step-by-step procedures for generating Java forms for host application screens.

Appendix A—gOOi error messages

Provides descriptions and user actions for error messages generated by gOOi for Java.

Appendix B—gOOi advanced topic

Discusses team development activities using Jacada for Cincom Remote Control.

Glossary of terms

Index

Conventions

The following table describes the conventions used in this document series:

Convention	Description	Example
Constant width type	Represents screen images and segments of code.	<pre>PUT 'customer.dat' GET 'miller\customer.dat' PUT '\DEV\RMT0'</pre>
Slashed b (<i>b</i>)	<p>Indicates a space (blank).</p> <p>The example indicates that four spaces appear between the keywords.</p>	<pre>BEGINbbbSERIAL</pre>
Brackets []	<p>Indicate optional selection of parameters. (Do not attempt to enter brackets or to stack parameters.) Brackets indicate one of the following situations:</p> <p>A single item enclosed by brackets indicates that the item is optional and can be omitted.</p> <p>The example indicates that you can optionally enter a WHERE clause.</p> <p>Stacked items enclosed by brackets represent optional alternatives, one of which can be selected.</p> <p>The example indicates that you can optionally enter either WAIT or NOWAIT. (WAIT is underlined to signify that it is the default.)</p>	<pre>[WHERE <i>search-condition</i>]</pre> <pre>[<u>WAIT</u>] [NOWAIT]</pre>

Convention	Description	Example
Braces { }	Indicate selection of parameters. (Do not attempt to enter braces or to stack parameters.) Braces surrounding stacked items represent alternatives, one of which you must select. The example indicates that you must enter ON or OFF when using the MONITOR statement.	MONITOR { ON } { OFF }
<u>Underlining</u> (In syntax)	Indicates the default value supplied when you omit a parameter. The example indicates that if you do not choose a parameter, the system defaults to WAIT.	<u>(WAIT)</u> <u>(NOWAIT)</u>
	Underlining also indicates an allowable abbreviation or the shortest truncation allowed. The example indicates that you can enter either STAT or STATISTICS.	<u>STATISTICS</u>
Ellipsis points...	Indicate that the preceding item can be repeated. The example indicates that you can enter multiple host variables and associated indicator variables.	<code>INTO :host-variable [:ind-variable],...</code>
UPPERCASE Lowercase	In most operating environments, keywords are not case-sensitive and they are represented in uppercase. You can enter them in either uppercase or lowercase. In the UNIX operating environment, keywords are case-sensitive and you must enter them exactly as shown.	<code>COPY MY_DATA.SEQ</code> <code>HOLD_DATA.SEQ</code> <code>cp *.QAR /backup</code>

Convention	Description	Example
<i>Italics</i>	<p>Indicate variables you replace with a value, a column name, a file name, and so on.</p> <p>The example indicates that you must substitute the name of a table.</p>	FROM <i>table-name</i>
Punctuation marks	<p>Indicate required syntax that you must code exactly as presented.</p> <p>() parentheses . period , comma : colon ' ' single quotation marks</p>	<p>(<i>user-id</i>, <i>password</i>, <i>db-name</i>)</p> <p>INFILE 'Cust.Memo' CONTROL LEN4</p>
⇒ (Right arrow)	Indicates that you should select each choice that is separated by an arrow, in sequence.	Select File ⇒ Save as
+ (Plus sign)	Indicates that you should hold down the first key and press the second key.	CTRL+S

Mouse button conventions

Mouse button 1 refers to the primary mouse button—on a right-handed mouse, the button on the left; on a left-handed mouse, the button on the right.

Mouse button 2 refers to the secondary mouse button—on a right-handed mouse, the button on the right; on a left-handed mouse, the button on the left.

1

Introduction

gOOi for Java overview

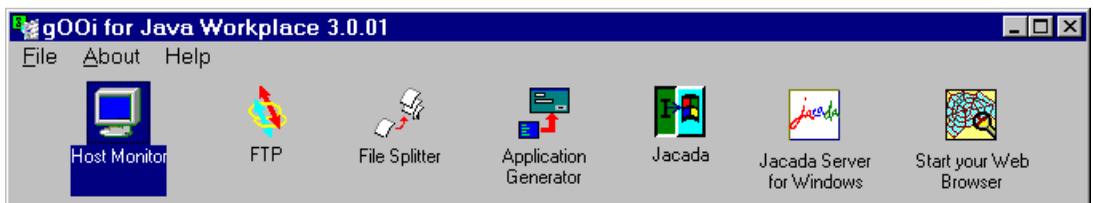
gOOi for Java is a specialized interface to the Jacada product from Jacada Ltd. This interface translates MANTIS and AD/Advantage screen specifications from Universal Export Facility (UEF) format to the Screen Definition Format (SDF) used by Jacada.

Jacada uses the SDF files to generate Java classes that are graphical equivalents for each screen. These Java classes run as applets under your Web browser, enabling your host application for Internet/intranet access.

No host screen changes are required for using gOOi with Jacada. During the Java generation process, Jacada analyzes each screen and creates a unique ID that it uses to identify the screen at run time.

Jacada includes a KnowledgeBase customized for MANTIS and AD/Advantage. The KnowledgeBase consists of rules for pattern recognition that are applied to host screens during generation to optimize the generated GUI. (Refer to the Jacada documentation for a detailed explanation of this process.) This document explains the gOOi for Java interface and how it interacts with Jacada.

The gOOi for Java Workplace below shows the workflow when using gOOi for Java:



The workflow is from left to right in the workplace. Depending on how you perform certain tasks required for screen conversion, you may skip some workplace activities. Subsequent chapters of this manual provide more detailed information on the workplace and related tasks.

Before you begin

To use Jacada, you must have a Web browser installed on your client machine. Jacada works with any browser that supports release 1.1 of Java, such as Internet Explorer from Microsoft and Netscape Communicator from Netscape.

In addition, your client must have access to a Web Server where the Jacada Server is installed. The Jacada Server establishes a host session, then provides Java applets to the client through the connection established with the Web Server.

You can install gOOi and Jacada according to the on-screen setup instructions provided on the installation media. When you have verified that the required software has been successfully installed, you are ready to create a gOOi application.



For best results while using gOOi for Java, set your display settings for the desktop area for 800 by 600 pixels and small fonts. A higher resolution of 1024 by 768 pixels is also acceptable. A resolution of 640 by 480 pixels is *not* recommended.

gOOi for Java components

The gOOi for Java components work together to obtain the UEF format from MANTIS, translate the UEF format to SDF, and initiate the Jacada generator in a workplace environment. A complete gOOi for Java Workplace includes the following components:

Component	Description
Host Monitor	Establishes a connection with the host for access to MANTIS and AD/Advantage, allowing quick movement of UEF to the desktop (that is, the PC). The Host Monitor provides easy "screen save to desktop" capabilities.
FTP	Starts your FTP software. The FTP software provides another option for moving UEF files from the host to the PC. Use this option when you need to move large quantities of screens to the desktop, as opposed to an individual screen or a smaller group of screens.
File Splitter	Selects all screen elements in a compound UEF file and places them in separate .exp files. You can use this option in conjunction with FTP, but it is not necessary when you are using the direct "screen save to desktop" features available with the Host Monitor.
Application Generator	Generates Jacada SDF files for all the UEF files that you specify, then optionally starts the Jacada Remote Control component for Java generation. The Jacada Remote Control executes the Jacada product to produce Java applets.
Jacada	Starts the Jacada product for use after the Jacada Remote Control has completed.
Jacada Server for Windows	Starts the Jacada Server for application options specification.
Start your Web browser	Starts Web browser on the client machine.

How gOOi for Java works

The gOOi Application Generator creates three types of files, which are then input to the Cincom Jacada Remote Control and Jacada:

File extension	Description
.sif	Contains general platform and server information
.adf	Includes details concerning the application
.sdf	Contains detailed descriptions of the layout of a host screen

To produce these files, you must first copy from the host to the PC a UEF image of every host screen to be included in the application. You can accomplish this in one of two ways:

- ◆ Directly, by signing on to MANTIS or AD/Advantage via the Host Monitor. Using this method, the UEF file is copied to the PC one screen at a time, and the File Splitter is not necessary.
- ◆ Indirectly, via your FTP tool. Choose this method to transfer a large volume of screens in a sequential file via UEF. When a large UEF file is transferred to the PC via FTP, the file contains multiple UEF images. You must then run the File Splitter to extract each image into a separate file.

The Application Generator groups the UEF files into an application. Once the layout is ready, you select the Generate button to produce the .sif, .adf, and .sdf files. After these files are created, you are prompted to start the Jacada Remote Control to begin the Java class generation process. When generation is complete, control returns to the Application Generator.

gOOi for Java also has convenient workplace icons for starting Jacada, the Jacada Server, and your Web browser. (Refer to the Jacada documentation for detailed information on using Jacada and the Jacada Remote Control.)

2

Preparing to generate Java

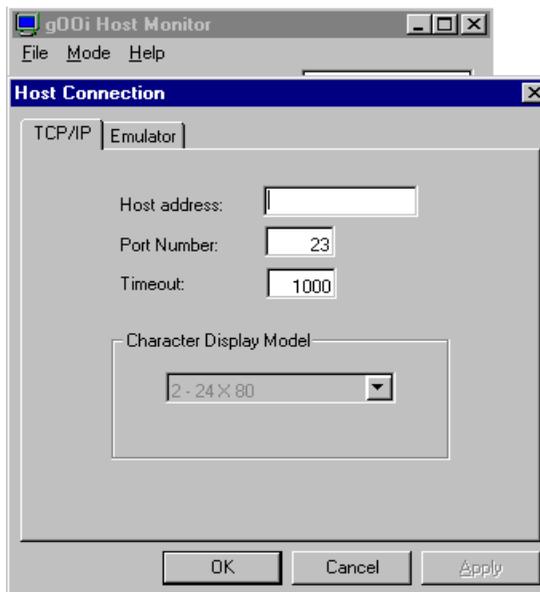
Before you use the Application Generator to create the necessary files for Jacada, you must save the desired MANTIS screen images in UEF format on your desktop (that is, the PC or workstation). There are two methods for transferring UEF screen images from the host to the PC: See "[Using the Host Monitor](#)" on page 15 and "[Using FTP](#)" on page 20.

Using the Host Monitor

To obtain UEF images of screens using the Host Monitor, you must first specify how the Host Monitor is to connect to the host. The recommended connection is via TCP/IP, but some popular emulators are also supported.

To obtain UEFI images of screens using the Host Monitor:

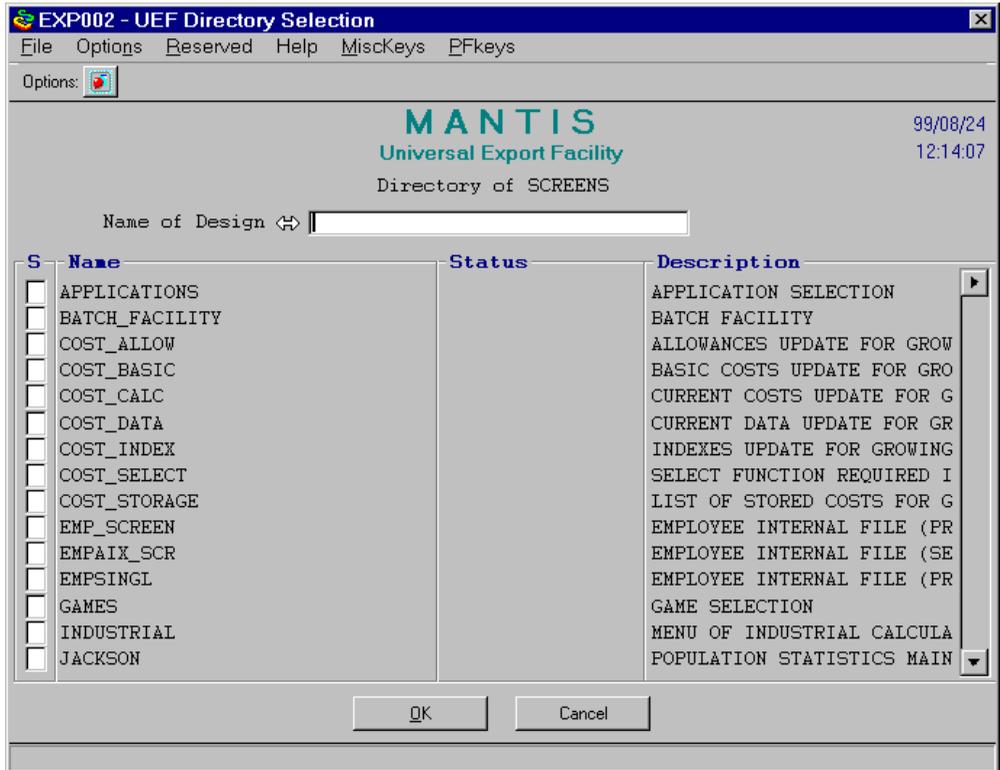
1. Start the Host Monitor, then choose File ⇒ Host Connection from the menu. The following window displays:



2. Specify the connection parameters for your environment, then click OK. A confirmation message displays.
3. Click Start on the following display to begin a host session:

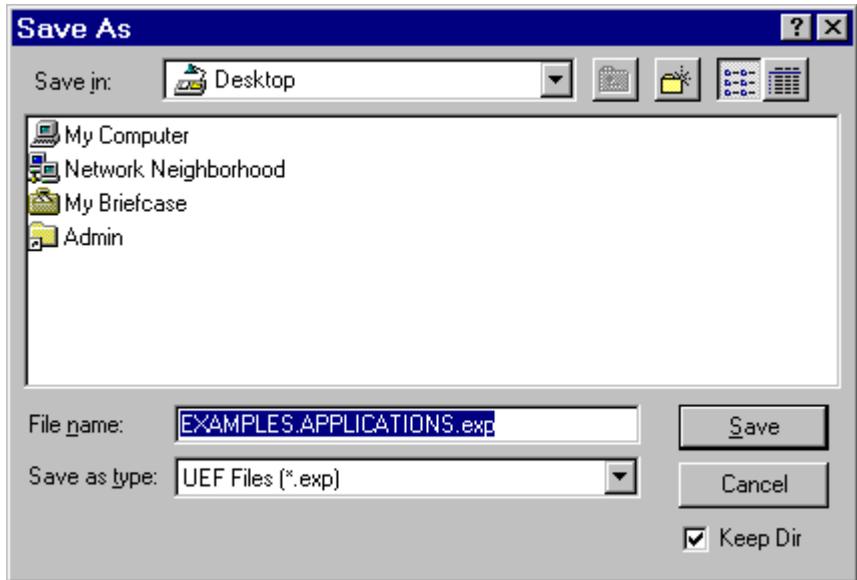


- Use this session to access the MANTIS Universal Export Facility (UEF). At the UEF menu, indicate that you want to export (that is, choose a Direction of EXP), set Directory to Y, and select SCREEN as the entity type. The following directory of screens then displays on a customized gOOi form:



- Select the screen(s) for which you want a UEF image. Then set the Apply to desktop option from either the menu bar or the toolbar. Press ENTER to save the screens to your desktop.

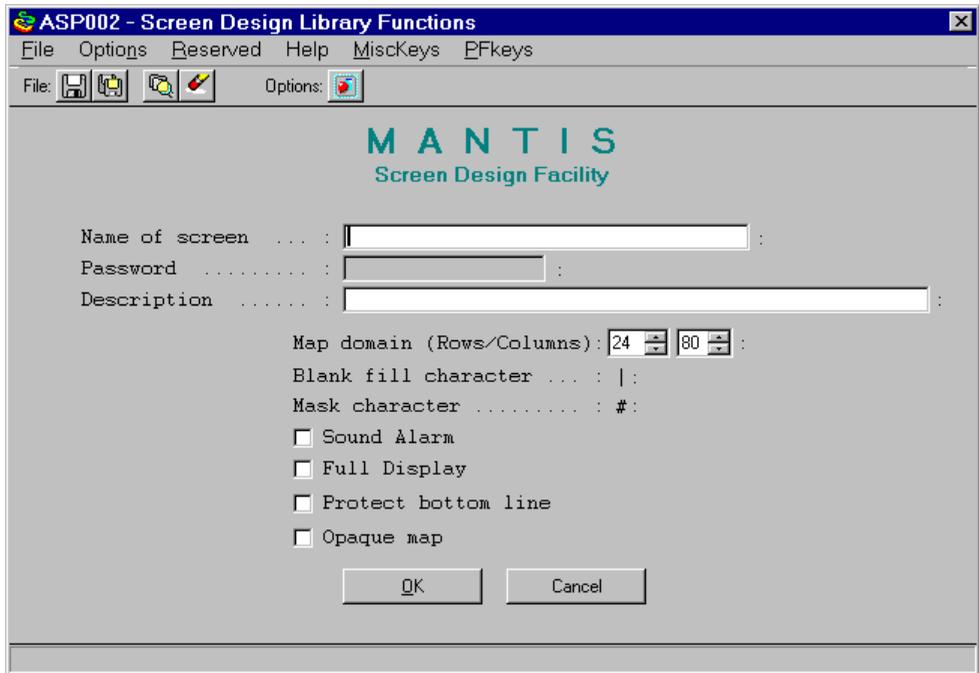
A Save As dialog such as the following displays for each screen selected:



6. Respond to each dialog with the name of the PC file where you want to save the UEF image. This approach allows you to select multiple screens at a time.

You can also download a UEF image to the PC from the MANTIS Screen Design Facility.

To do so, use the Library Functions of Screen Design to fetch the screen for which you want a UEF image:



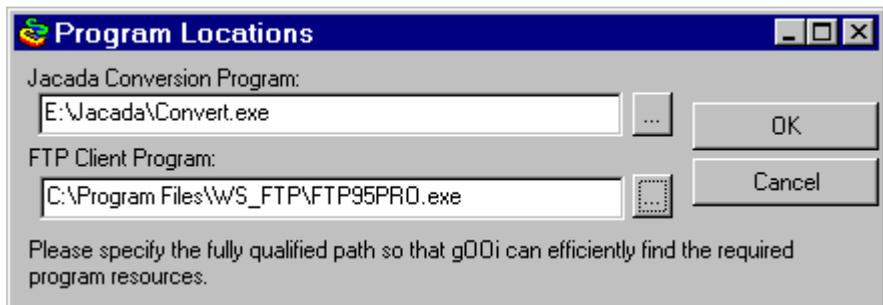
Choose Library Functions again, set the Apply to desktop option from either the menu bar or the toolbar, then select Replace.

A Save As dialog displays. Specify the name and location for a file, and a UEF image will be stored there.

Using FTP

You can also transfer UEF information from the host to the PC via the FTP tool of your choice. To do so:

1. From the MANTIS Universal Export Facility, export all the screens for which Java is to be generated. The standard export process creates the UEF images on a VSAM ESDS cluster.
2. Run a REPRO job to copy the contents of this ESDS cluster to a sequential data set. (This sequential data set must be defined as variable, with a record length of 258.)
3. Use your FTP software to copy this sequential data set to the PC. To start your FTP software from the gOOi for Java Workplace, you must first define to gOOi the location of this software. To do this, select File ⇒ Program Locations from the menu. The following dialog displays[CJB2]:



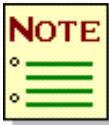
The ‘...’ button to the right of FTP Client Program initiates an Open dialog that you can navigate to select the FTP executable via point-and-click.



Before downloading a single UEF file with multiple screens/prompts from the host, you should give it a .txt extension to distinguish it from the .exp files that will be generated from it. If your UEF file contains a single screen/prompt, give it a .exp extension before downloading.

Creating .exp files with the File Splitter

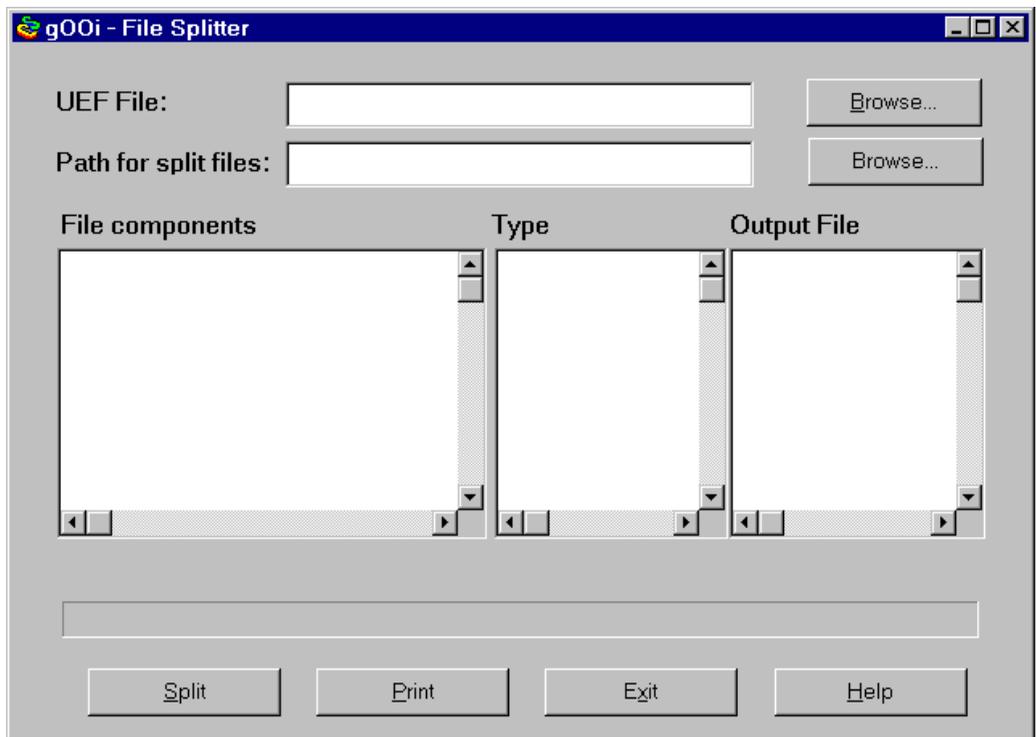
For gOOi to generate the files needed by Jacada, there must be only one host screen per file on the PC. The File Splitter parses a host file containing multiple UEF images and generates one .exp file per MANTIS screen. These files are placed in the same directory as your original UEF file.



If you have used the procedures described earlier to download individual UEF files, you can skip this section.

To split a MANTIS compound UEF file, perform the following steps:

1. Double-click the File Splitter icon. The following screen displays:

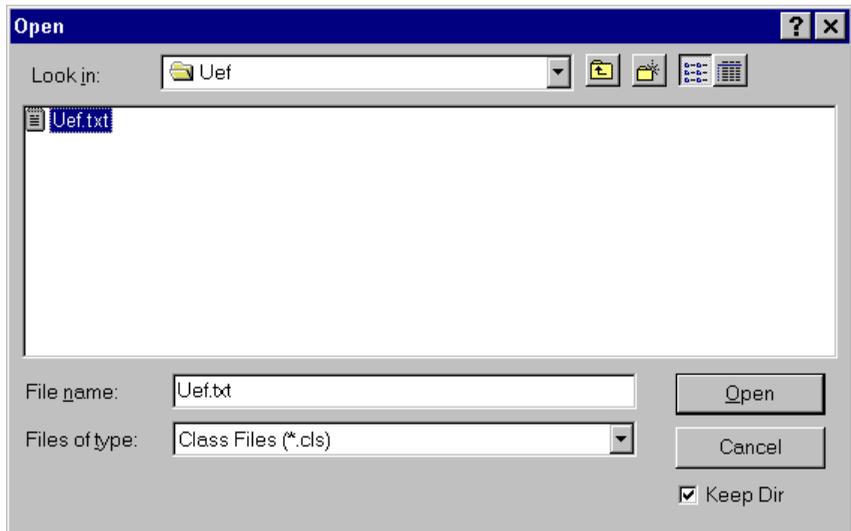


2. Click Browse to locate a downloaded UEF extract file and to choose a location for the .exp files that are output from the split. (This example assumes only one compound UEF file.)



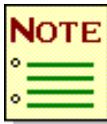
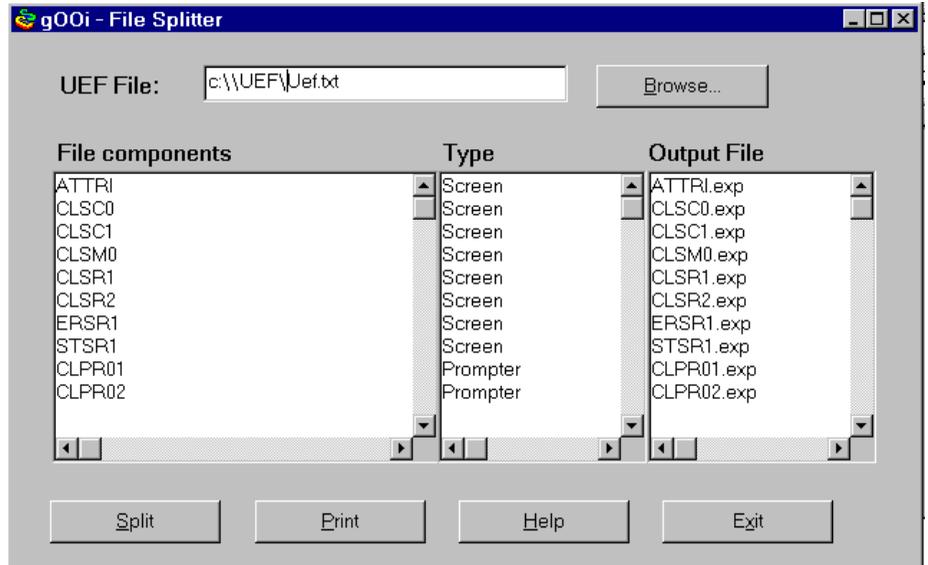
Important! Any existing files of the same name in the target directory will be overwritten without warning.

An Open dialog such as the following displays:



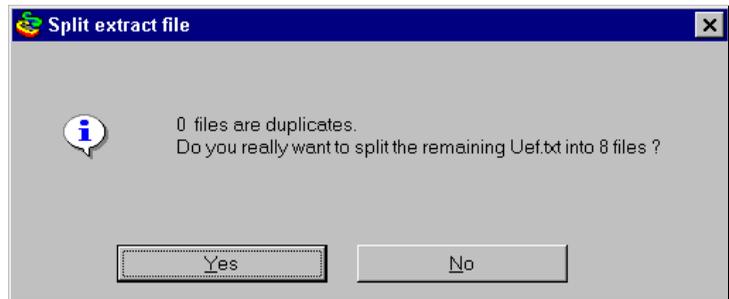
3. Select the target directory from the drop-down list. The resident files display. Click your UEF file name. The name displays in the File name field.

- Click Open. The File Splitter screen displays your UEF file screen and prompter settings. Other UEF image types are ignored:



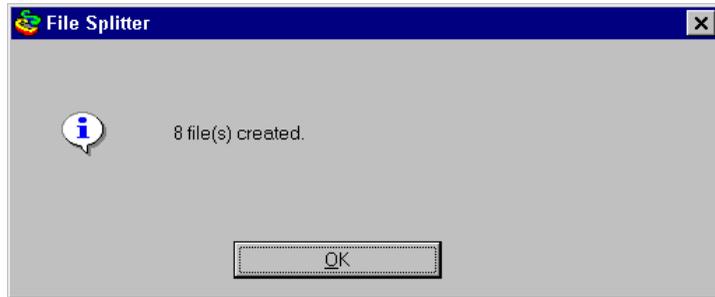
If your UEF file includes multiple *instances* of the same screen or prompter, every occurrence except the last is designated as duplicate in the Type column. In this case, the File Splitter only generates a file for the last instance of the object encountered.

- Click Split. You are prompted to confirm the operation, as shown in the following window:



The File Splitter generates as many files as there are unique objects in the list, and places them in the same target directory. Any existing files of the same name in the target directory will be overwritten without warning.

6. Click Yes. A verification displays as follows:



7. Click OK. You return to the File Splitter screen.
8. You have the option to print the results of the split for later reference.
9. At the File Splitter screen, click Exit. You return to the gOOi for Java Workplace window.

The file-splitting process is now complete, and you are ready to proceed to Application Generation.

Creating a gOOi application

Understanding a gOOi application, subapplication, and application layout

An *application*, from the gOOi perspective, is a collection of host screens that represent the functionality of an application system written in MANTIS. A gOOi application is composed of graphical representations of the host screens that are called *subapplications*.

Subapplications are created by the gOOi Application Generator, working in conjunction with the Jacada for Cincom Remote Control and Jacada. Always refer to an application to access its subapplications.

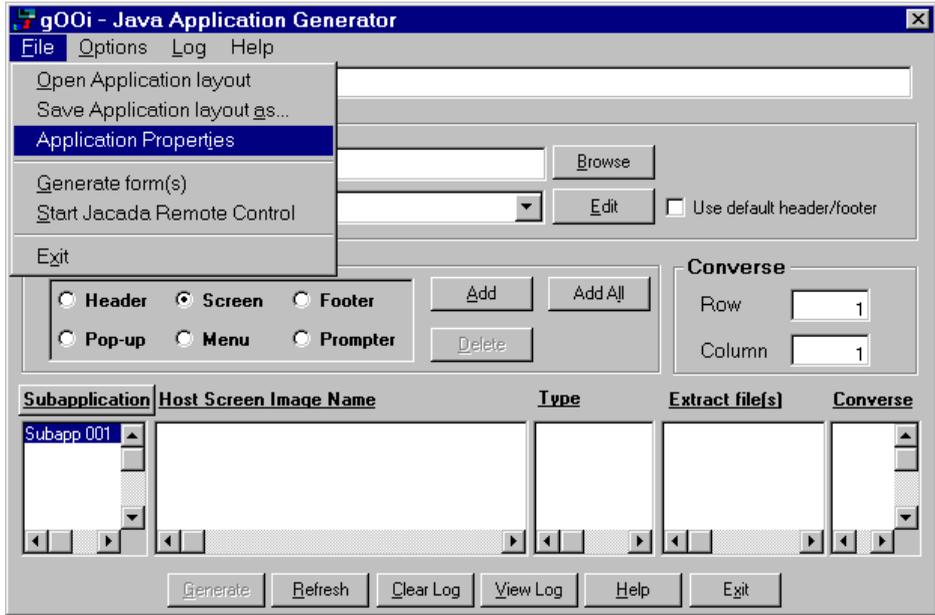
Information about application generation is saved in an *application layout*. Application layouts can be saved and opened to allow for easy maintenance of applications.

Understanding an application library

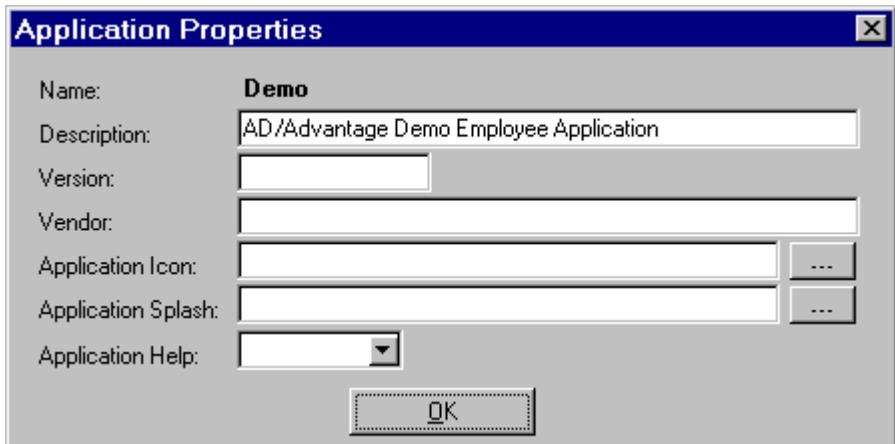
An *application library* is a technique that allows very large applications to be broken into smaller groupings of subapplications, called *libraries*. gOOi always uses libraries when generating applications. For more information on libraries, refer to the Jacada documentation.

Application properties

Before generating an application with the gOOi Application Generator, start the Application Generator and select the File menu. The following window displays:



Select Application Properties from the menu to specify general details about the application:



Review the following properties, as they may affect the final results of your generated application.

Description

Indicate the main purpose or title of the application (for example, the Customer Billing System). The description displays in the title bar of the generated application.

Version

Indicate the version number to be displayed by Help for this application.

Vendor

Provide a description of those responsible for creating and maintaining this graphical version of the application. This description is also displayed by Help for the application.

Application Icon

Specify the path to the icon file that is to be used to represent this application.

Application Splash

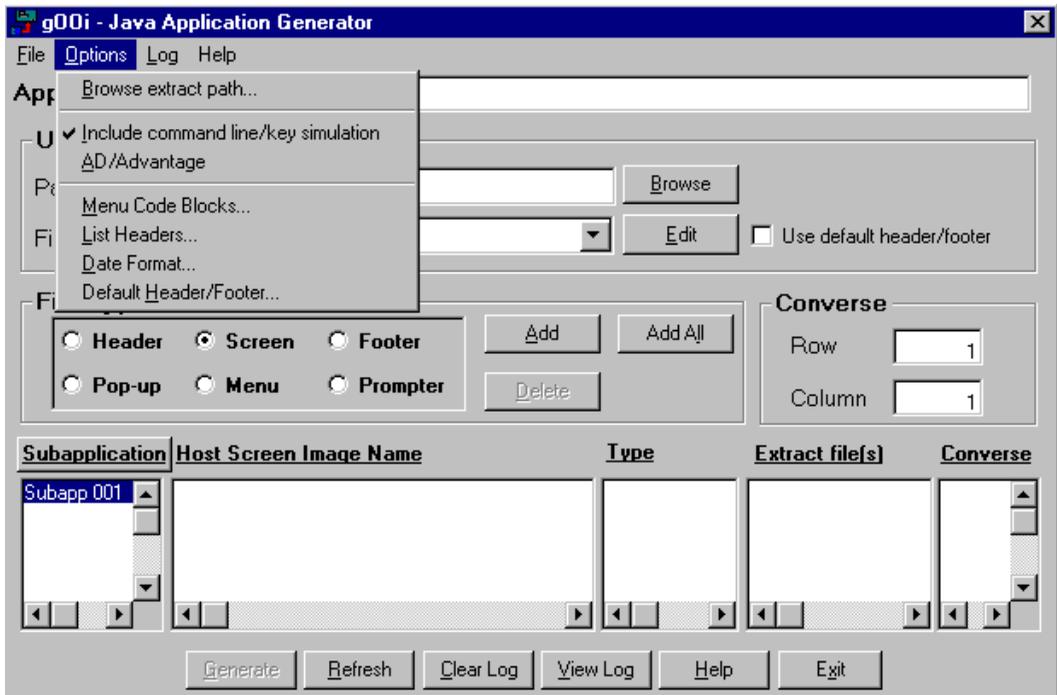
Indicate the bitmap file to be presented when this application is launched.

Application Help

Specify which style of Help system will be used for this application. Windows and HTML are the possible choices.

Application Generator options

Before generating an application, you must set general options from the Application Generator options menu:



Review the descriptions of the following options carefully, as they must match your application environment in order to generate the .sdf files properly.

Include command line/key simulation

Check this option if you want the MANTIS command line and MANTIS key simulation fields to be generated as part of your Java forms. If this option is not checked, these standard MANTIS fields will not be included on the Java forms.

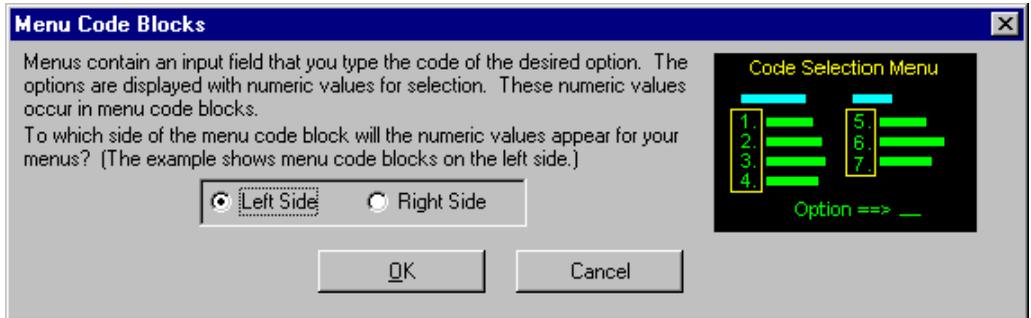
AD/Advantage

Check this option when you want the generator to use a header and footer screen when generating Java forms. Headers and footers are typically used with AD/Advantage, but your application may be designed with headers and footers, too. When this is the case, use this option for generation.

Menu code blocks

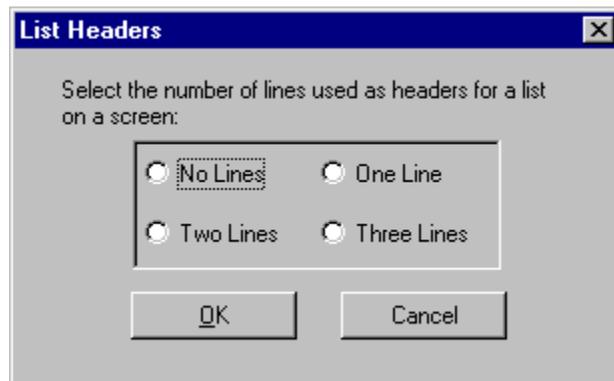
For a host screen to be considered a menu, it must include a list of numbered choices along with a numeric entry field for entering the desired choice.

The list of choices may have the numbers on the left or on the right. Use this option to identify the placement of these numbers on host screens that are designated as menus:



List headers

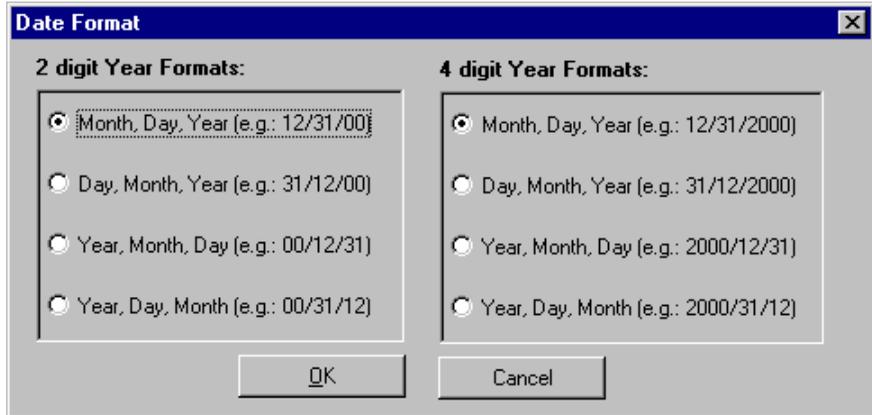
Many applications display lists (also referred to as tables) of data in multiple column fields on the host screens. When you choose this option, the following window displays:



Select the number of lines to be used as headers for a list on a screen, then click OK.

Date format

The mask for date fields on MANTIS screens does not indicate the order of appearance for month, day, and year. For the date controls on the generated Java forms to function correctly, you must select two choices from the following option window:



You can choose only one 2-digit year format and one 4-digit year format.

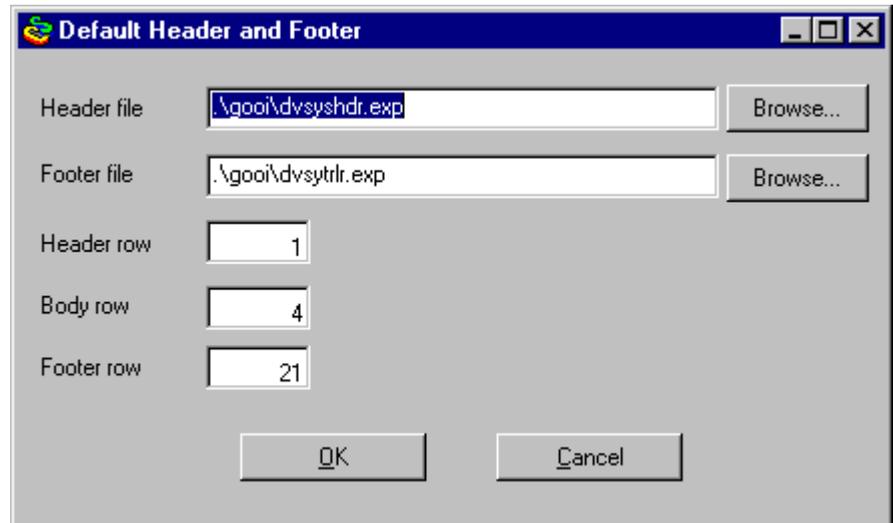
Default header/footer

AD/Advantage screens are composed of a header, a body, and a footer. By default, the header is displayed at row 1, the body at row 4, and the footer at row 21. You can modify these specifications.

You can also use the header/footer option for host screens other than AD/Advantage. If your host screens use a standard header and footer, modify the preset AD/Advantage specifications to fit your standards.

To specify header and/or footer settings:

1. Click Default Header/Footer... from the Options menu. The following dialog displays:



- The row values for the header, body, and footer are preset. You should change these values only if you have changed the No. of rows in Header-Screen to a value other than three in the #PARM transaction of AD/Advantage.
 - The Header file and Footer file fields are preset to the location of the standard AD/Advantage header and footer. If you have not customized the AD/Advantage header or footer, verify that the specified locations are correct for your installation.
2. If you have customized the header and/or footer:
 - a. Export the customized ADV_HEADER and/or ADV_TRAILER from the Master user using the Universal Export Facility (UEF).
 - b. Download the UEF files to your PC.

- c. Process these files through gOOi generation and specify their location in the Header file and Footer file fields. (For specific information, see "[Creating .exp files with the File Splitter](#)" on page 21 and "[Specifying gOOi application components](#)" on page 34.)

Click OK to return to the Application Generator window.

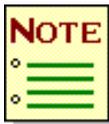
3

Generating Java

Understanding generation procedures

After completing the following preparation tasks, you are ready to begin generating Java:

- ◆ Copy to the PC, from the host, the UEF image(s) for each desired host screen.
- ◆ Create .exp files using the File Splitter (optional, depending on how you moved the UEF images to the PC).
- ◆ Review the optional configuration settings for application generation explained in "[Preparing to generate Java](#)" on page 15.



If you did not complete the preparation tasks listed above, you should review "[Preparing to generate Java](#)" on page 15 and complete these tasks before you continue.

Generating Java via Jacada involves the following automated procedures:

1. Specifying an application and its component subapplications.
2. Generating control files (an .sdf, .adf, and .sif file) for input to the Jacada for Cincom Remote Control. The Jacada for Cincom Remote Control process produces Java classes that are GUI images of host screens. These Java classes are then used by the Jacada Server to Web-enable your MANTIS or AD/Advantage application.

Both of these procedures are discussed in this chapter.

Specifying gOOi application components

Once you have .exp files with one host screen image per file, you are ready to create Java classes for your host screens. To do this, you must specify each host screen component by extract file and type. These host screen components become graphical versions of the host screen known as *subapplications*.



MANTIS users: Extract file types can consist of headers, footers, screens, pop-ups, menus, and prompters. When the File Splitter surveyed your UEF file, it looked for only screen and prompter objects. For the file-splitting process, headers, footers, screens, pop-ups, and menus were classified as screens. Once the UEF file is split, you must specify each extract file to gOOi by its exact type.

gOOi generation restrictions

The following restrictions apply to Java generation. None of these items prevent you from generating Java classes, but the results may be unsatisfactory in these cases.

- ◆ gOOi does not support wraparound capabilities for 22 x 80 domain screens.
- ◆ gOOi does not support a host screen greater than 24 x 80.
- ◆ Two screen components cannot be placed side-by-side (that is, a 24 x 30 screen cannot be placed next to a 24 x 50 screen to create a 24 x 80 screen).
- ◆ If a screen serves as a menu, gOOi can generate the menu options as buttons if the screen design meets certain requirements. Select the menu type for your menu screen only if it meets the following conditions:
 - The screen has an unprotected numeric field.
 - Menu options are in the following format:
 - first-option-name*
 - second-option-name*
 - [and so on...]

Alternatively, you can define the menu screen as a screen type rather than as a menu type.

- ◆ The status line on a Java form is generated using all the information from the 23rd line (the message line) of the MANTIS screen if the map attribute is not FUL. If the map attribute is FUL, then no status line generates. For screens that do not use the FUL attribute, you can place information on the status line by using the SHOW command with a semicolon in your MANTIS program.
- ◆ You cannot use the 24th line of a MANTIS screen for data input unless you authorize command line/key simulation to be generated (select Options ⇒ Include command line/key simulation). You can opt to not define screens that use the 24th line for data input.

Application component specification steps

To specify your host screen components as subapplications for Java generation, perform the following steps:

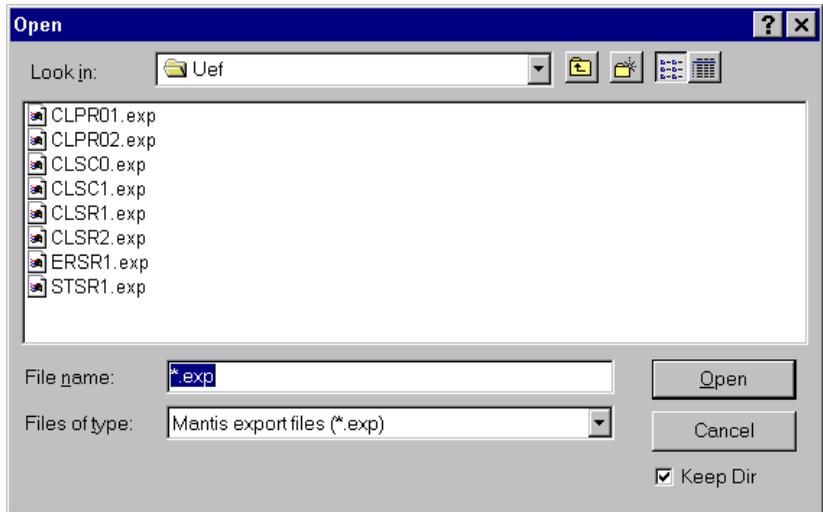
1. From the gOOi for Java Workplace screen, double-click the Application Generator icon. The following screen displays:

The screenshot shows the 'gOOi - Java Application Generator' dialog box. It features a menu bar with 'File', 'Options', 'Log', and 'Help'. The 'Application Name' field is empty. The 'UEF Input File(s)' section includes a 'Path' field with a 'Browse' button and a 'File name' dropdown with an 'Edit' button. A checkbox for 'Use default header/footer' is present. The 'File Type' section has radio buttons for 'Header', 'Screen' (selected), 'Footer', 'Pop-up', 'Menu', and 'Prompter', along with 'Add', 'Add All', and 'Delete' buttons. The 'Converse' section has 'Row' and 'Column' spinners, both set to 1. The table below has the following structure:

Subapplication	Host Screen Image Name	Type	Extract file(s)	Converse
Subapp 001				

At the bottom of the dialog are buttons for 'Generate', 'Refresh', 'Clear Log', 'View Log', 'Help', and 'Exit'.

- Click Browse, or select the Browse extract path in the Options menu. The following window displays:



- Select the drive and directory containing the .exp files with the UEF images from your host application. All .exp files must be in the same directory.
- Select any file and click Open. The Application Generator window displays. The Path field contains your selected path. The File name field contains the first listed file.
- To view the UEF file listed in the File name field, click Edit.



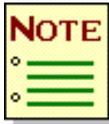
AD/Advantage requirements: Ensure that the header and footer information is in place.

MANTIS requirements: See "[Include command line/key simulation](#)" on page 28, "[AD/Advantage](#)" on page 28; "[Menu code blocks](#)" on page 29, "[List headers](#)" on page 29, "[Date format](#)" on page 30, and "[Default header/footer](#)" on page 30. In the Application Generator, make sure that the Use default header/footer check box is selected.

- In the Application Name field, enter a short name that you will use to refer to this application. Use a maximum of seven characters with no extension. This name will be used by gOOi and Jacada. Also, Jacada will create a folder by this name to store the generated Java classes.

The larger field after the short name field is for a longer description of the application; it will be displayed in the title bar of the application. This value can be set with application properties as described in "[Application properties](#)" on page 26.

7. Determine the method by which you will generate your Jacada application. There are two possibilities:
 - If all the .exp files created from your host application are of file type screen or prompter, you can use the Add All feature. Add All is designed to quickly generate a Jacada application when the source host application is a straightforward series of screens and prompters. Add All populates the application layout with one .exp file per subapplication. If your .exp files meet this condition, proceed to step 8.
 - If the .exp files created from your host application are a mix of file types (that is, screens and prompters plus headers, footers, pop-ups, and menus), you must specify each host screen as a subapplication individually. If your .exp files meet this condition, proceed to step 9.
8. To use the Add All feature (see the first bulleted item in step 7), click Add All. gOOi populates your application layout with one .exp file per subapplication (that is, the host screen). Proceed to step 12.



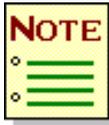
When you click Add All, you see as many Subapps listed in the lower left as there are .exp files. However, you will see only one record in the remainder of the table (for Host Screen Image Name, Type, Extract file(s), and Converse). This is because you are viewing the details for Subapp 001 only. To view details for another Subapp, click the Subapp name.

9. To specify host screens as subapplications individually (see the second bullet in step 7), perform the following steps for every subapplication you want to generate for your host application.



Although it may be logical to specify subapplications for gOOi in the order in which they appear in the host application, it is not mandatory to do so. The important thing is that the components are specified correctly for each screen, and that these components are associated with the correct .exp files.

- a. From the Subapplication list, select Subapp 001 to begin adding components to the first subapplication and the application layout. (After completing Subapp 001, click the Subapplication button to add/move to subsequent subapplications.)
- b. In the File Type box, select the type of .exp extract file that corresponds to the component type you are adding to a subapplication.



You can specify subapplication components in any order, with one exception. If a subapplication consists of multiple screen components (upper and lower screens), you must specify the screen components in order from top to bottom.

- c. Specify the following options for File Type, as appropriate:

Option	Description
Header	<p>MANTIS users: Creates the first lines of the generated Java form. Every other component extract file generates lines following the header. A subapplication can have only one header.</p> <p>AD/Advantage users: The Use default header/footer check box must be selected so that when you specify the UEF Input File(s) and a File Type of Screen, then select the Add or Add All button, gOOi automatically includes the necessary AD/Advantage header and footer with each screen.</p>

Option	Description
Screen	<p>Creates lines on the generated Java form. If a header is selected, the lines generated using the screen file are placed after it. If no header is defined, the lines display starting at the first line.</p> <p>There can be more than one screen extract file associated with a subapplication. The generated content of each component screen extract file displays in sequential order, separated by one blank line.</p>
Footer	<p>MANTIS users: Creates lines at the bottom of the generated Java form.</p> <p>AD/Advantage users: The Use default header/footer check box must be selected so that when you specify the UEF Input File(s) and a File Type of Screen, then click Add or Add All, gOOi automatically includes the necessary AD/Advantage header and footer with each screen.</p>
Pop-up	<p>MANTIS users: Creates a pop-up window corresponding to the pop-up currently in use in the host application. For each gOOi Subapp, you must define each pop-up that displays in response to a keystroke. Several screens can share the same pop-up window. Shared pop-up windows are generated once.</p>



Be sure to specify all pop-ups that may be called by a screen. If an ungenerated pop-up is invoked, a just-in-time pop-up will be dynamically generated.

Specify the following options in separate subapplications:

Option	Description
Menu	<p>Creates a menu Java form. If a screen serves as a menu, the Jacada for Cincom Remote Control can generate the menu options as buttons if the screen design meets certain requirements. Select the menu type for your menu screen only if the following conditions are met:</p> <ul style="list-style-type: none"> - The screen has an unprotected numeric field. - Menu options are in the following format: <i>first-option-name</i> <i>second-option-name</i> [and so on...] <p>Alternatively, you can define the menu screen as a screen type rather than as a menu type.</p>
Prompter	<p>MANTIS users: Creates a special form for a MANTIS Help screen. The different pages of the prompter display in a separate window. A Next button is automatically provided to allow the user to navigate through a chained prompter.</p>

- d. From the File Name drop-down list, select the extract file that contains the component you are currently specifying.
- e. MANTIS users: Perform this step only if your MANTIS application uses dynamic CONVERSE to display your host screen at a position other than the one at which it was designed. Otherwise, proceed to step f.

The Converse field on the Application Generator screen allows you to specify the row and column offset of a dynamic CONVERSE. The default values are row 1, column 1 (1@1).

For example, a host application uses two fields displayed through:

```
CONVERSE MAP1 WAIT
CONVERSE MAP2 UPDATE (20,1)
```

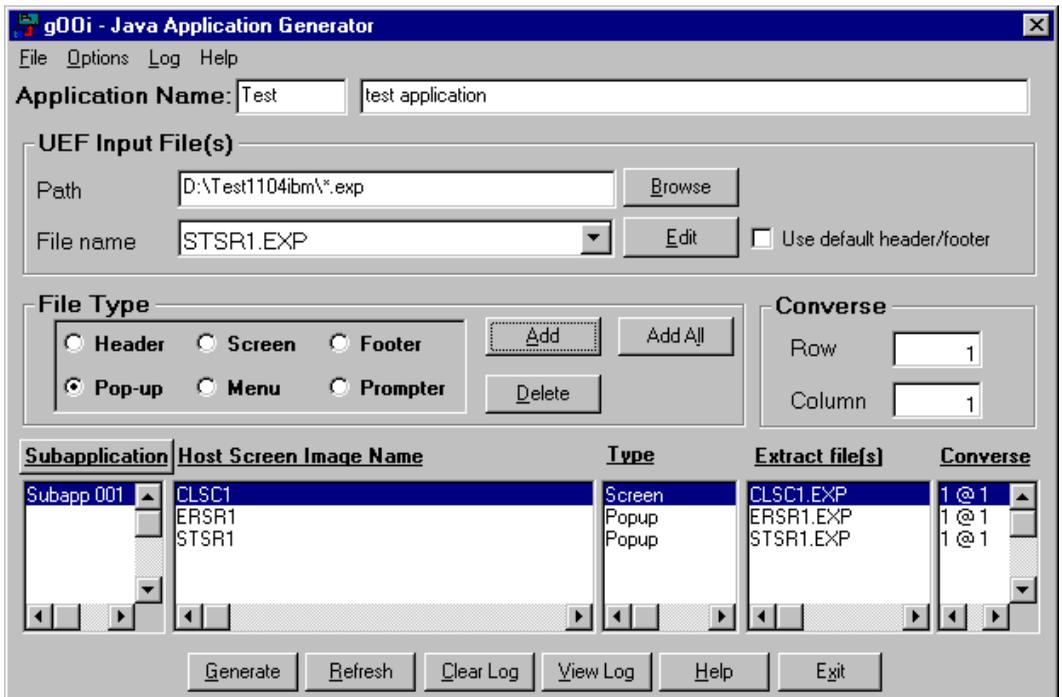
where:

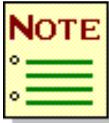
MAP1 =a screen designed at 1@1

MAP2 =a footer line designed at 1@1, but
dynamically CONVERSEd at 20@1

To generate a subapplication that duplicates the positioning of this mainframe display, define the subapplication with two components: a screen with CONVERSE values of 1@1 and a footer with CONVERSE values of 20@1.

- f. Click Add or double-click the file name. (If you make an error, select the extract file in the Subapplication list and click Delete.) Your subapplication and its components display in the list:





In the preceding example, note that the listed extract files are the components of the selected subapplication (Subapp 001). Once you have specified all your subapplications, selecting different subapplications yields different extract file lists.

10. Repeat steps 9b through 9f for each component of a subapplication. After you have specified all the components for one subapplication, proceed to step 11.

The following two examples demonstrate subapplication specifications.

Subapp 001 is composed of one header, one footer, two screens, and two pop-up windows that may display:

Subapp 001	HEAD01.EXP	header
	PART1.EXP	screen
	PART2.EXP	screen
	FOOT01.EXP	footer
	LIST01.EXP	pop-up
	ERROR01.EXP	pop-up

Subapp 002 uses a different header and footer than Subapp 001, but shares two pop-up windows with Subapp 001. Subapp 002 also uses an additional pop-up:

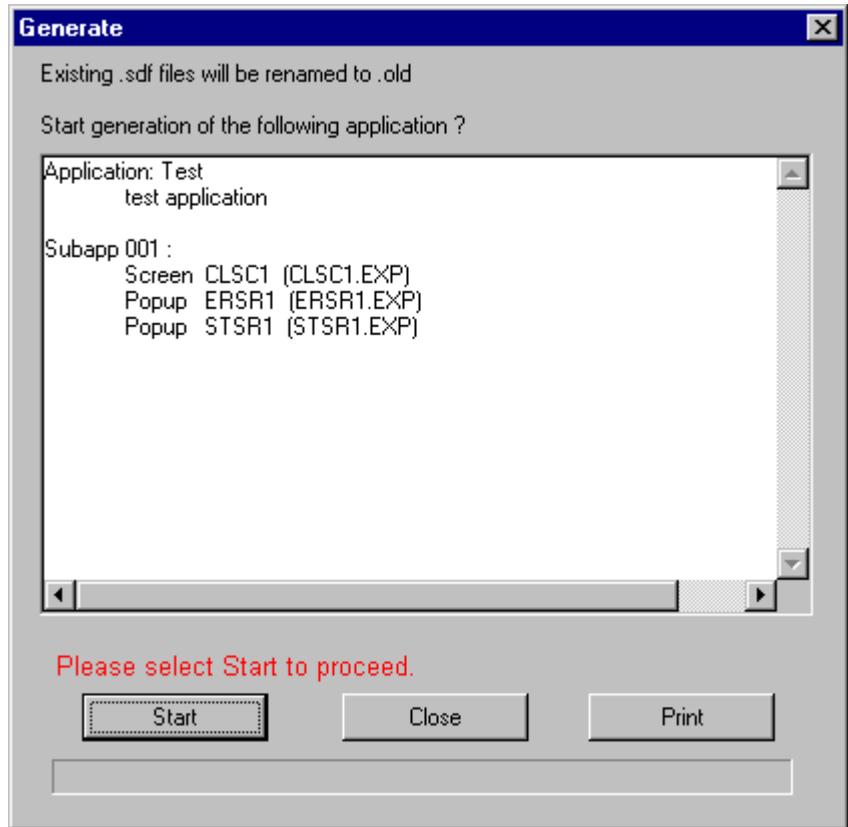
Subapp 002	HEAD02.EXP	header
	CUSTOM.EXP	screen
	FOOT02.EXP	footer
	LIST01.EXP	pop-up
	ERROR01.EXP	pop-up
	LIST02.EXP	pop-up

11. After you have specified all components for one subapplication, select the next subapplication (using the Subapplication button) and repeat step 9. Proceed in this manner until you have specified all the screens for your host application.

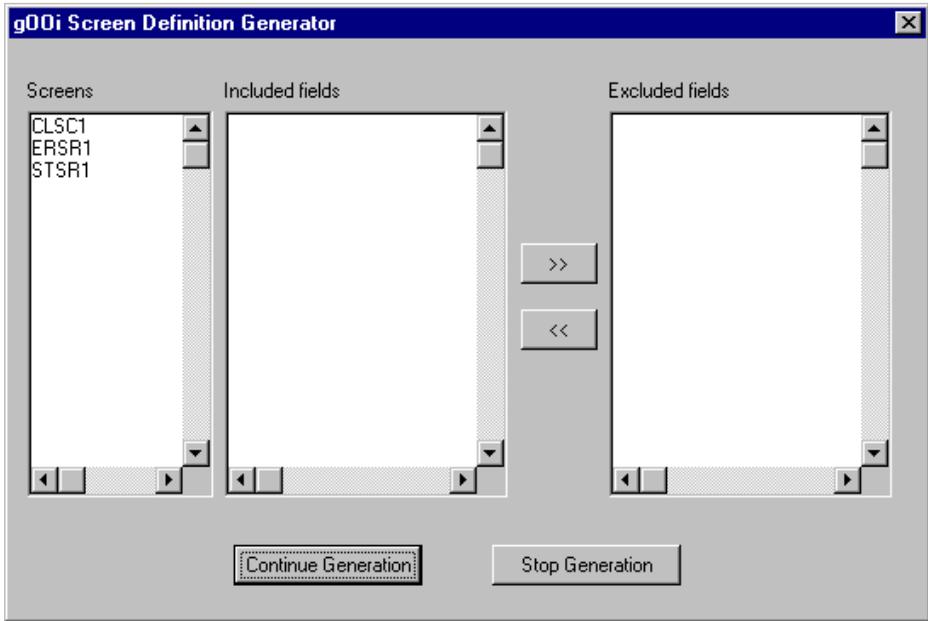
Generating subapplication forms

After specifying all components for all subapplications (see "[Specifying gOOi application components](#)" on page 34), you are ready to generate the application forms as follows:

1. On the Application Generator screen, click Generate. The following screen displays:



2. Check the gOOi application list to verify that the subapplications are specified correctly. If the list is correct, click Start. The following dialog box displays:



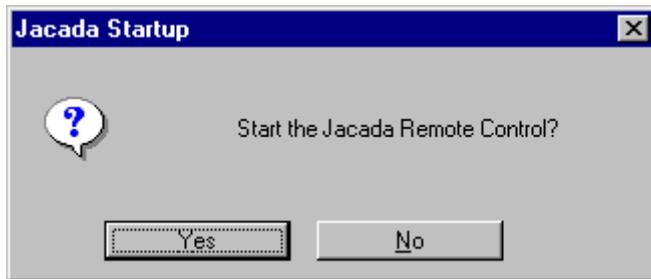
Use this dialog box to exclude host fields from the generated Java forms. If you do not want to exclude any host fields, select Continue Generation.

If you want to exclude host fields, follow these steps:

- a. Select the screen that contains the field(s) to be excluded.
- b. Select the Included field(s) to be excluded for this screen.
- c. Select the >> button to move the field(s) into the Excluded fields list.

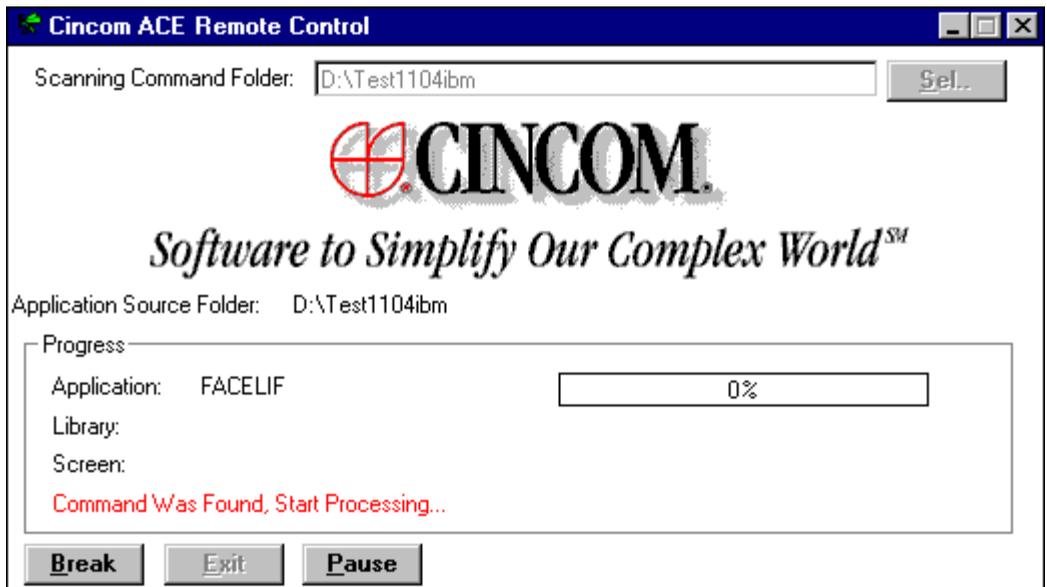
Repeat these steps as necessary, then select Continue Generation.

3. When file generation is complete, the following dialog box displays:



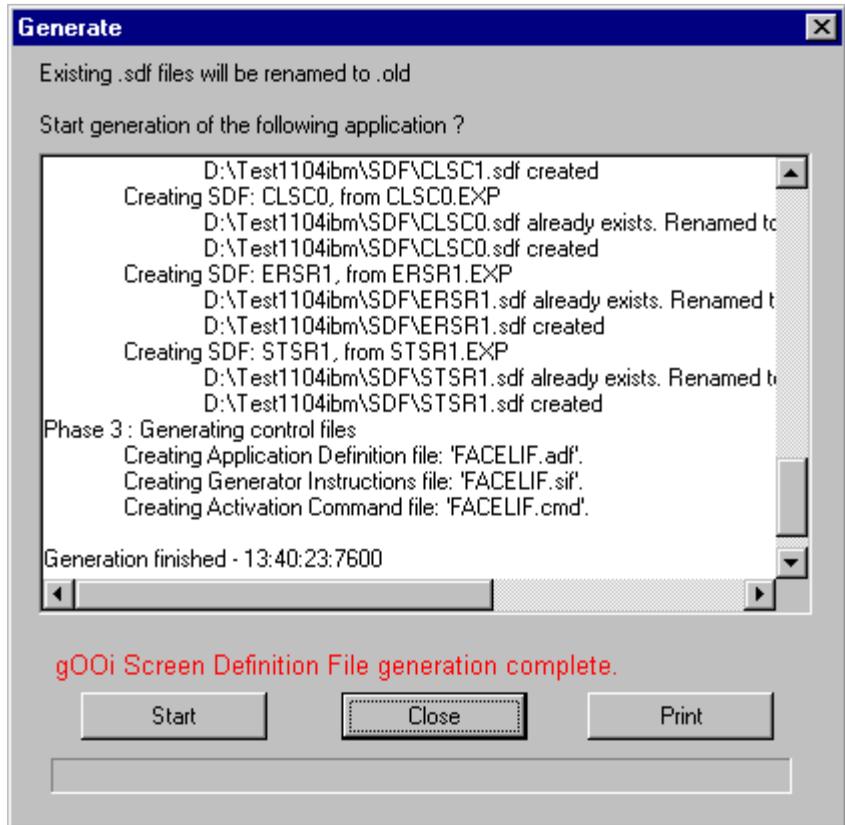
You normally respond Yes to this message box. If you choose not to start the Jacada for Cincom Remote Control at this time, you can also initiate it from the menu via File ⇒ Start Jacada Remote Control.

When you respond Yes to the preceding message box, the Jacada for Cincom Remote Control displays:

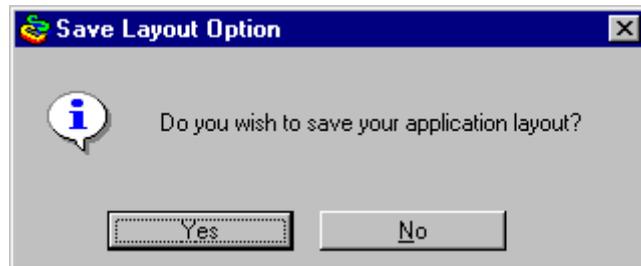


Remote control processing starts automatically.

- 4. After the remote control completes the Java generation process, the Generate window redisplay, including a message that the .sdf file generation completed:



- 5. Click Close, and the Application Generator window displays. Click Exit. The following message box displays:



It is highly recommended that you save your application layout definition. This is especially useful if you want to generate the same application several times.

To save an application definition, select File ⇒ Save layout. Enter a valid file name. To avoid file overrides, you should use the default extension of .LAY. After responding to this dialog box, you will return to the gOOi for Java Workplace.

Viewing and enhancing generated forms

Jacada includes multiple tools that allow you to view and enhance the Java forms generated from the file input supplied by gOOi. It is easy to enhance the appearance of your forms with common graphical controls such as topic boxes and bitmaps. You can start Jacada by double-clicking the icon on the gOOi for Java Workplace.

Refer to the Jacada documentation for details concerning the tools available.

A

gOOi error messages

gOOi error messages and explanations

GOOI0001	You must first select the location of your files.
Explanation	Before you can add form elements, you must define the directory where the extract files are located.
User action	Click Browse to open the directory selection window or select the Browse extract path in the Options menu.
GOOI0002	The application name must be entered.
Explanation	The Application Generator needs an application name to create a folder for the generated forms and an application file to load the generated forms.
User action	On the Application Generator screen, enter a name in the Application field (maximum seven characters).
GOOI0006	This is not a valid layout file!
Explanation	You have tried to load a layout file that does not have a valid structure (selecting File ⇒ Open layout).
User action	You can edit the file and verify that the first line contains the following text: "gOOi LAYOUT DEFINITION".

- GOOI0008** You cannot define two <Menu|Prompter>s with the same Form ID.
- Explanation** You have tried to add a menu or a prompter to a Form ID that already contains one of these elements. Menus or prompters must have their own Form IDs and cannot be mixed with other screen elements.
- User action** Select another Form ID in the list and repeat the add action.
- GOOI0011** You cannot define a <Menu|Prompter> and other components with the same Form ID.
- Explanation** You have tried to add a menu or a prompter to a Form ID that already contains another element. Menus or prompters must have their own Form ID and cannot be mixed with other screen elements.
- User action** Select another Form ID in the list and repeat the add action.
- GOOI0014** This extract file does not contain a prompter definition.
- Explanation** You have tried to add a file that does not contain a prompter definition.
- User action** Verify that your .exp file contains a "PROMPTER" string at the beginning
- GOOI0018** For a popup, the CONVERSE must be at {1,1}.
- Explanation** The dynamic CONVERSE feature is not available for pop-ups.
- User action** Use only the default of 1@1 for pop-ups.

B

gOOi advanced topic

Team development features

The Jacada for Cincom Remote Control allows team development activities on a single application or multiple applications. To do so, the Jacada Remote Control must be running stand-alone on a development server machine.

The Jacada Remote Control usually processes a single set of screens when activated directly with gOOi, but by running it on a separate development server, it can watch for screens that need to be converted by Jacada and process them as they appear from multiple gOOi workstations. Refer to the Jacada documentation for more details on the operation of the Jacada for Cincom Remote Control.

Glossary of terms

applet

An application program written in the Java programming language that can be loaded onto a Web server, then downloaded and run on client machines using a Web browser.

button

An object that the user can press (click) to initiate an action. Contains either text or an image (bitmap).

form

A GUI window that is moveable and sizable. A form has a title bar and can have a menu bar, toolbar, and status line.

FTP

(File Transfer Protocol) A common method of copying files between two computers.

Internet

A large collection of interconnected computer networks around the world that all use the TCP/IP protocols.

Intranet

A private network inside a company or organization that uses the same type of software that is used on the Internet, but only for internal use.

Java

A programming language from Sun Microsystems that can be used to generate applets that can be interpreted by Web browsers.

server

A computer that provides services to other computers that are referred to as clients.

TCP/IP

A set of protocols used for communication between computers, most notably on the Internet. A computer must have TCP/IP software to participate in the Internet.

Web Server

A software package running on a server computer that provides World Wide Web services to client software running on other computers.

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