



Entire Screen Builder

First Steps

Version 4.3.1



This document applies to Entire Screen Builder Version 4.3.1 and to all subsequent releases.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

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First Steps

This tutorial provides a very simple and brief introduction to Entire Screen Builder. It is intended to get you, the rules developer, started with the basic steps that are required to define transformation rules in order to present your character-based host screens as Windows dialogs. Therefore, it is important that you read the following topics in the sequence indicated below.

- Introduction
- Preparing to Use Entire Screen Builder
- Defining Basic Rules in Global Scope
- Defining Basic Rules in Application Scope
- Defining Basic Rules in Map Scope
- Defining Extended Rules in Application Scope

Estimated duration for this tutorial: 2 hours.

Introduction

This section provides the following information:

- About This Tutorial
 - Basic Steps
-

About This Tutorial

First-time users are recommended to work through this tutorial to obtain an overview of how to work with Entire Screen Builder. This tutorial is not intended to be a comprehensive description of the full range of possibilities provided by Entire Screen Builder. Therefore, explanations are kept to a minimum. For a full description of each feature, refer to the SDK documentation.

This tutorial assumes that Entire Screen Builder has been installed with a developer license. This installs the SDK. This tutorial also assumes that your character-based application is running on a mainframe.



This tutorial assumes that you have a default installation of the Entire Screen Builder developer version. If you have modified the server settings or installed other components (for example, another HTTP server such as the Microsoft Internet Information Server), the detailed step-by-step descriptions in this tutorial may not work for your specific installation.

In this tutorial, several basic rules are defined for Con-nect, Software AG's office system. If Con-nect is not installed in your environment, you can also use any other application. Extended rules are illustrated using a logon screen.

Basic Steps

In order to create the transformation rules, you will perform the following basic steps in the course of this tutorial:

1. Define a rules repository with the System Management Hub.
This repository contains the demo data installed with Entire Screen Builder.
2. Define a host session with the System Management Hub.
This host session can then be invoked in a viewer.
3. Define the server settings with the SDK.
The Windows Viewer can then be invoked from the SDK.
4. Open the required scope.
You can either define transformation rules in global scope (i.e. these rules are then applied to all host screens for which an application scope has not been defined), in application scope (i.e. these rules are only applied to the screens for which a unique identification that you have defined is detected), or in map scope (i.e. these rules are only applied to a specific screen for which a unique identification that you have defined is detected).
5. Save a screen file and define the transformation rules.
You can use the screen file as a template for defining the transformation rules. For example, you can define that toolbar buttons are shown instead of PF keys, or that the name of your host application is shown in the title bar of the viewer.
6. Check how your rules are applied in the viewer.

You can now start with the exercises: [Preparing to Use Entire Screen Builder](#).

Preparing to Use Entire Screen Builder

This section provides the following information:

- Starting the System Management Hub
 - Stopping the Entire Screen Builder Server
 - Defining the Rules Repository
 - Defining a Host Session
 - Starting the Entire Screen Builder Server
 - Defining an Alias for the Images Folder
 - Starting the SDK
 - Defining the Server Settings
 - Invoking the Windows Viewer
-

Starting the System Management Hub

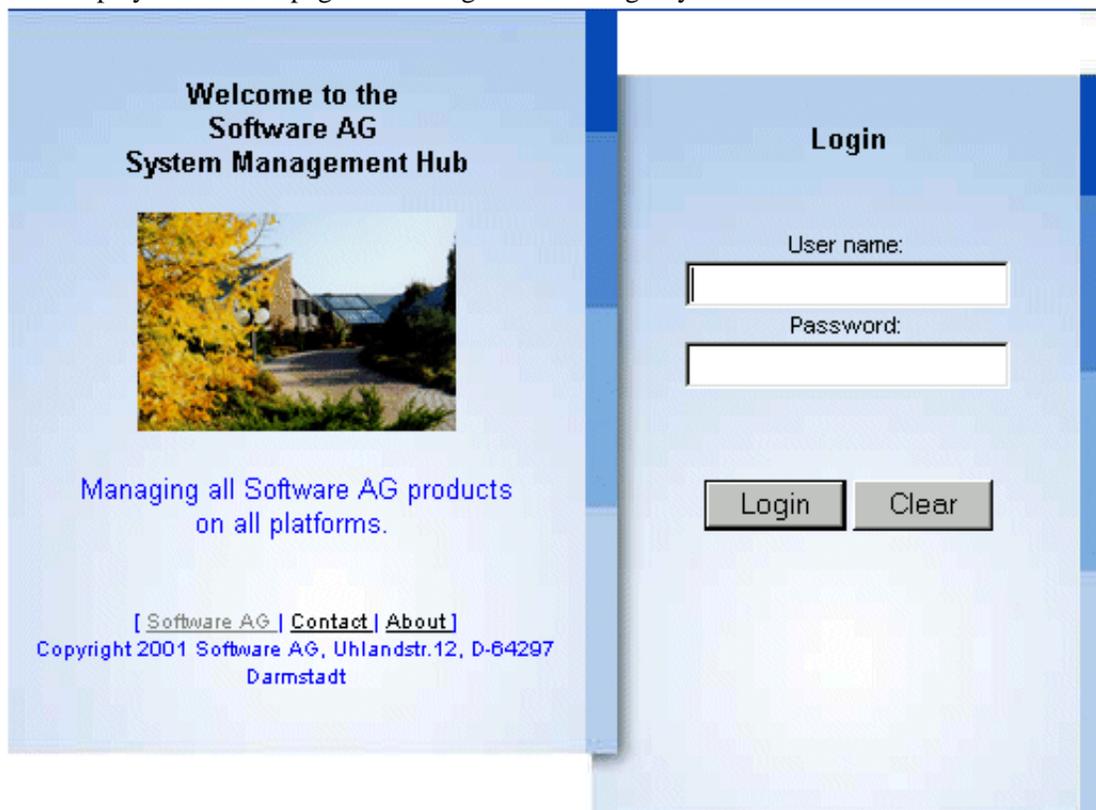
The System Management Hub is used to administrate the Entire Screen Builder Server.

If you do not specify otherwise during installation, an Entire Screen Builder folder automatically appears in the Programs folder of the Start menu after Entire Screen Builder has been installed. It contains the shortcuts for the Entire Screen Builder components, including the System Management Hub.

► To start the System Management Hub

1. From the Start menu, choose **Programs > Software AG Entire Screen Builder 4.3.1 > System Management Hub**.

This displays an HTML page containing the following in your browser:



2. Enter your user name and password.
This is the user ID and password for the machine on which the System Management Hub is running.
3. Choose the **Login** button.
The main HTML page for the System Management Hub is now shown.
4. In the tree-view frame at the top left, click the plus sign next to the host name to expand the object.
The object "Entire Screen Builder" is now shown in the tree.



Stopping the Entire Screen Builder Server

The properties of the Entire Screen Builder Server (the rules repository and the host session that you define with the following exercises) can only be modified when the server has been stopped.

▶ To stop the Entire Screen Builder Server

1. Select the "Entire Screen Builder" object (i.e. the name next to the plus sign).
2. In the command frame at the bottom left, click the **Stop** button.
A message indicating that the server has been stopped is shown in the detail-view frame on the right.
This may take a while.
3. In the detail-view frame, click the **OK** button.

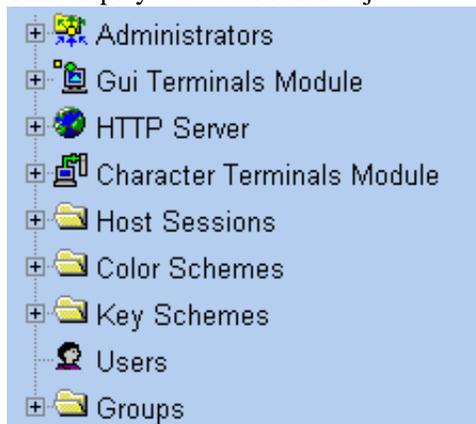
Defining the Rules Repository

All image files for the rules that you define with the SDK are stored in the rules repository. The SDK stores the files with relative path names - relative to the current repository setting. So that the sample image files that are delivered with Entire Screen Builder and that you define in the course of this tutorial can be found, you have to define the folder "sampleconf" that is installed with Entire Screen Builder as the new rules repository.

The rules repository is defined using the System Management Hub.

▶ To define the rules repository

1. Click the plus sign next to "Entire Screen Builder" to expand the object.
This displays the additional objects.



2. Select the "Gui Terminals Module" object.
The module settings are now shown in the detail-view frame.

The screenshot shows the 'GUI Terminals Module' configuration window. It features a table with two columns: 'Property' and 'Value'. The first row is a header. The second row is for 'Rules repository', with a text box containing the path 'C:\Program Files\Software AG\Entire Screen Builder 4\Repository' and a 'Browse...' button. The third row is for 'Timeout', with a text box containing '0'. Below the table is an 'Update configuration' button. At the bottom, there is a 'Listen address' section with a radio button selected for 'DEFAULT (port 22367)'. Below this are three buttons: 'Add', 'Edit', and 'Delete'.

Property	Value
Rules repository:	C:\Program Files\Software AG\Entire Screen Builder 4\Repository <input type="button" value="Browse..."/>
Timeout:	0

Listen address

DEFAULT (port 22367)

3. Define the following folder as the new rules repository:
`<drive>:\Program Files\Software AG\Entire Screen Builder 4\samples\sampleconf`
Or choose the **Browse** button to select this folder from a dialog.
4. Choose the **Update Configuration** button.

Defining a Host Session

The host sessions that are to be shown in a viewer are defined using the System Management Hub.

▶ To define a host session

1. Select the "Host Sessions" object.
Commands button for adding different types of host session are now shown.
2. Click the **Add** button for the desired session type (e.g. **Add Telnet TN3270 session**).
A dialog box for the specified session type appears.
3. Specify at least a session name and a host name or IP address.
For example:

Entire Screen Builder Host Session	
	General Property Value
	Session type: Telnet TN3270
	Session ID:
	Session name: <input type="text" value="My Session"/>
	Color scheme: <input type="text" value="sagcolors"/>
	Key scheme: <input type="text" value="sagkeys1"/>
	Communication Property Value
	Host name / IP address: <input type="text" value="ibm1.software-ag.de"/>
	Port number: <input type="text" value="23"/>
	Terminal type: <input type="text" value="IBM-3278-2"/>

For an Open Systems host (Natural UNIX or Natural OpenVMS), you also have to specify the service name of Entire Screen Builder on Open Systems (e.g. NSWDEMO).

4. Click the **Save new session** button at the bottom of the detail-view frame.

Starting the Entire Screen Builder Server

So that you can connect to the session you have just defined (this is explained later in this section), you have to start the server again.

▶ To start the Entire Screen Builder Server

1. Select the "Entire Screen Builder" object.
2. In the command frame at the bottom left, click the **Start** button.
A message indicating that the server has been started is shown in the detail-view frame.
3. In the detail-view frame, click the **OK** button.

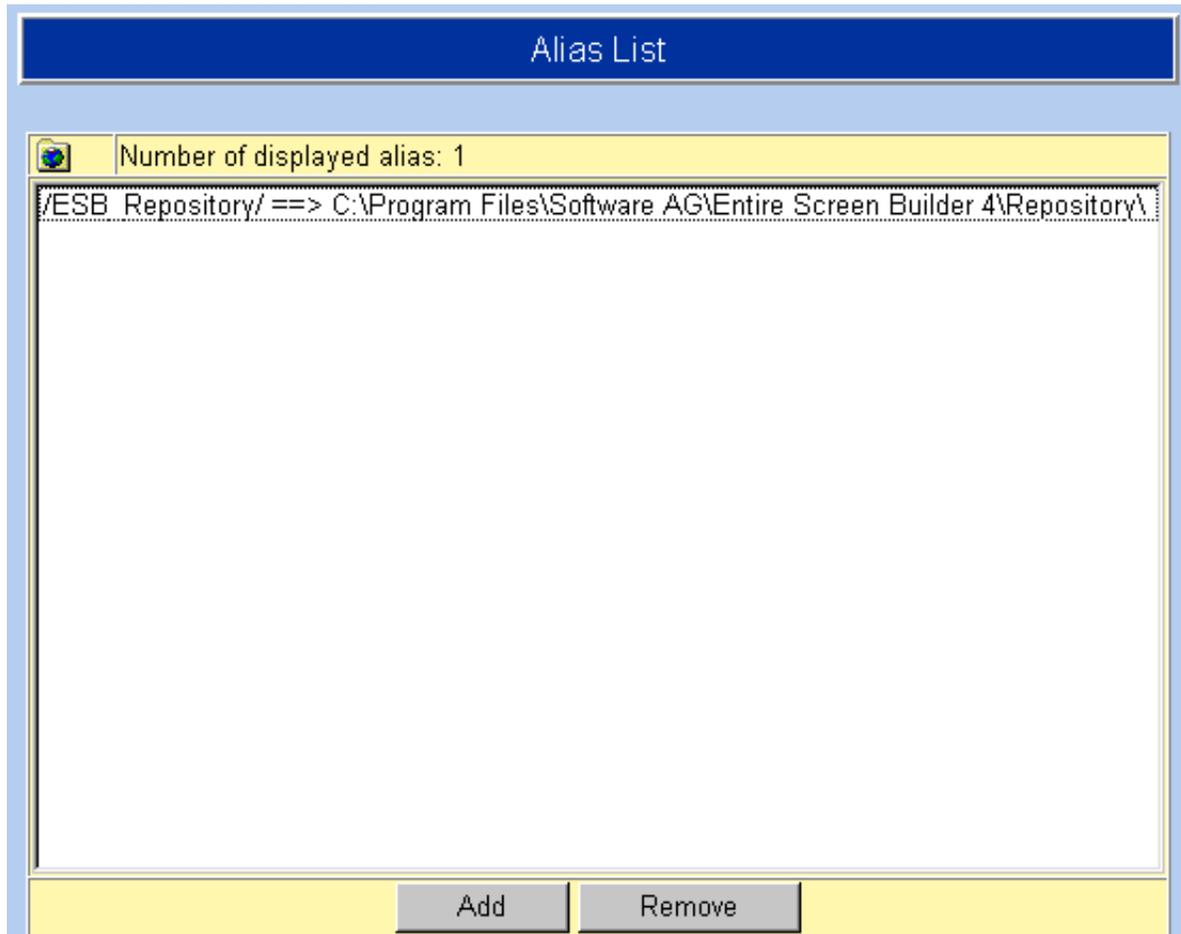
Defining an Alias for the Images Folder

So that images can be displayed in the Entire Screen Builder GUI viewers, you have to define an alias which points to the folder containing the images for the transformation rules that you will define with the SDK. This can only be defined when the Entire Screen Builder Server is running.

▶ To define an alias for the images folder

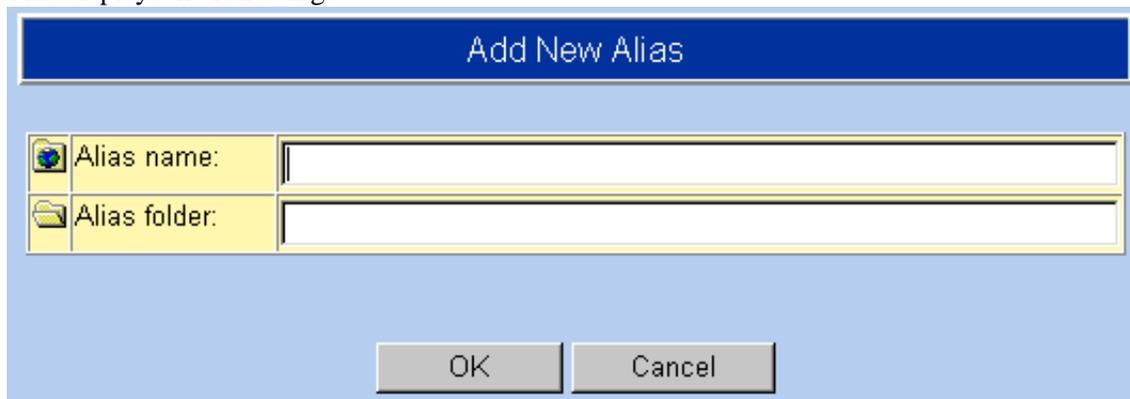
1. Click the plus sign next to "HTTP Server" to expand the object.
2. Select "Alias List".

The defined aliases are now shown.



3. To add an alias, click the "Add" button.

This displays the following:



The screenshot shows a dialog box titled "Add New Alias". It contains two input fields: "Alias name:" and "Alias folder:". Below the input fields are two buttons: "OK" and "Cancel".

4. Specify "Demo_Repository" as the alias name.
5. Specify the following as the alias folder:
`<drive>:\Program Files\Software AG\Entire Screen Builder
4\samples\sampleconf`
6. Click the **OK** button.
You can now quit the System Management Hub.
7. To quit, select the name of the host under which the "Entire Screen Builder" object is located.
8. In the resulting command frame, click the **Logout** button.
You can now simply leave the HTML page.

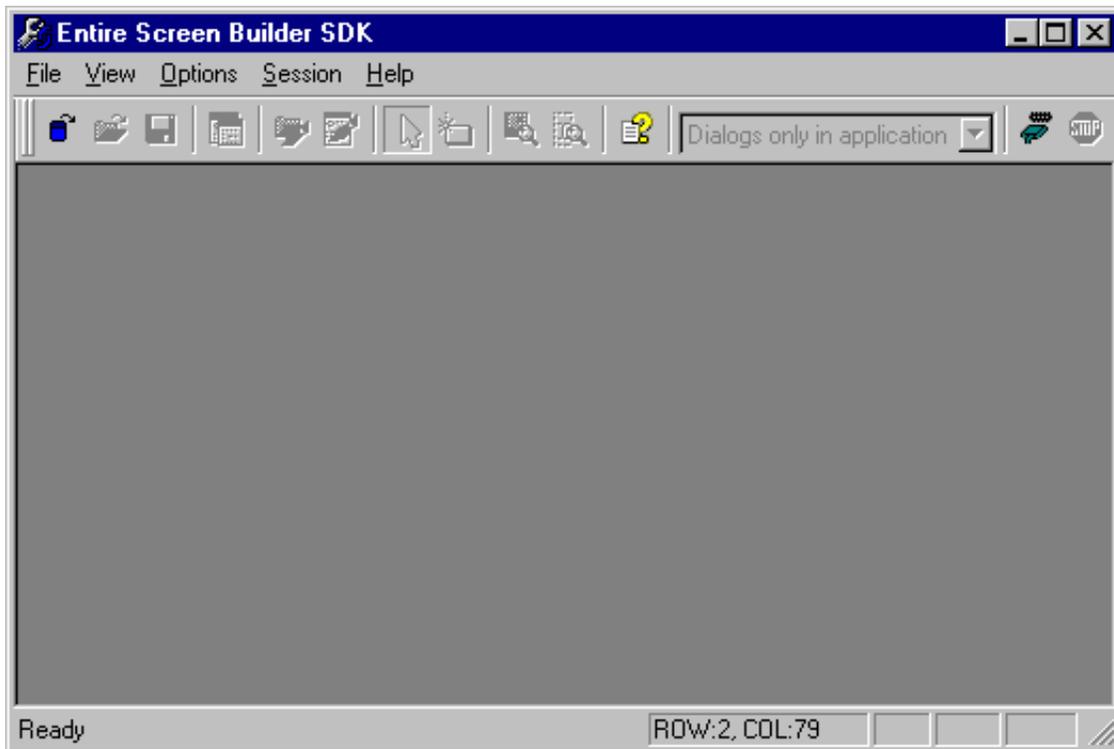
Starting the SDK

If you do not specify otherwise during installation, an Entire Screen Builder folder automatically appears in the Programs folder of the Start menu after Entire Screen Builder has been installed. It contains the shortcuts for the Entire Screen Builder components, including the SDK.

▶ To start the SDK

- From the Start menu, choose **Programs > Software AG Entire Screen Builder 4.3.1 > SDK**.

When you start the SDK, the following application window appears:



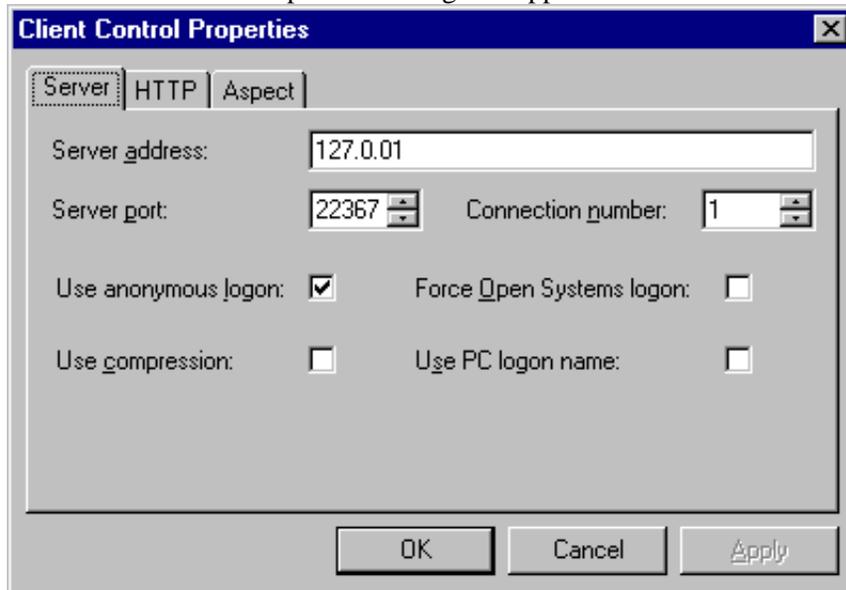
Directly after starting the SDK, only the menus **File**, **View**, **Options**, **Session** and **Help** are available. When you have opened a scope, additional menus will be available. This will be explained later in this tutorial.

Defining the Server Settings

So that you can invoke the Windows Viewer and check how your transformation rules are applied, you must define the server settings. The following exercise describes the minimum configuration information that has to be defined.

▶ To define the server settings

1. From the **Session** menu of the SDK, choose **Properties**.
The "Client Control Properties" dialog box appears.



2. Specify the following information on the "Server" property page:

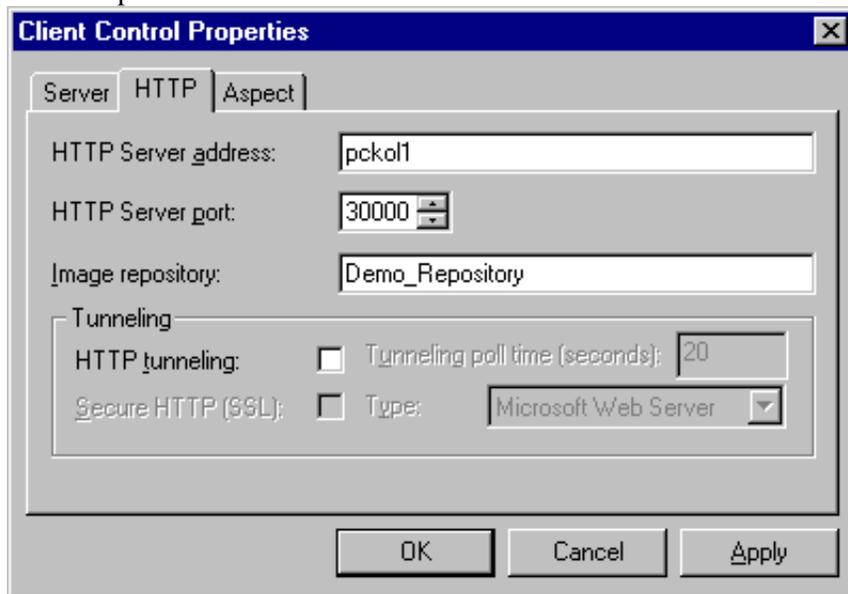
Property	Description
Server address	If the Entire Screen Builder Server and the SDK are on the same machine, you may use 127.0.0.1 (local machine). Otherwise specify the IP address or name of the machine on which the Entire Screen Builder Server is running.
Server port	The number of the port where the Entire Screen Builder Server listens. For this tutorial, you need not modify the predefined value.
Connection number	Specify the ID of the session that you have previously defined in the System Management Hub. The session ID is automatically created in the System Management Hub when you add a host session.

3. Select the "HTTP" tab.

- Specify the following information on the "HTTP" property page:

Property	Description
HTTP server address	The IP address or host name of the machine on which the HTTP server is running. If the Entire Screen Builder Server and the SDK are on the same machine, this is the IP address or name of your PC. Do not use 127.0.0.1 (local machine).
HTTP server port	The number of the port where the HTTP server listens. For this tutorial, you need not modify the predefined value.
Image repository	Specify "Demo_Repository". This is the alias name you have previously defined with the System Management Hub.

For example:



- Choose the **OK** button to save your specifications.
Now that the server settings have been defined, you can invoke the Windows Viewer from the SDK.

Invoking the Windows Viewer

You will now start the Windows Viewer with the host session you have previously defined.

Note:

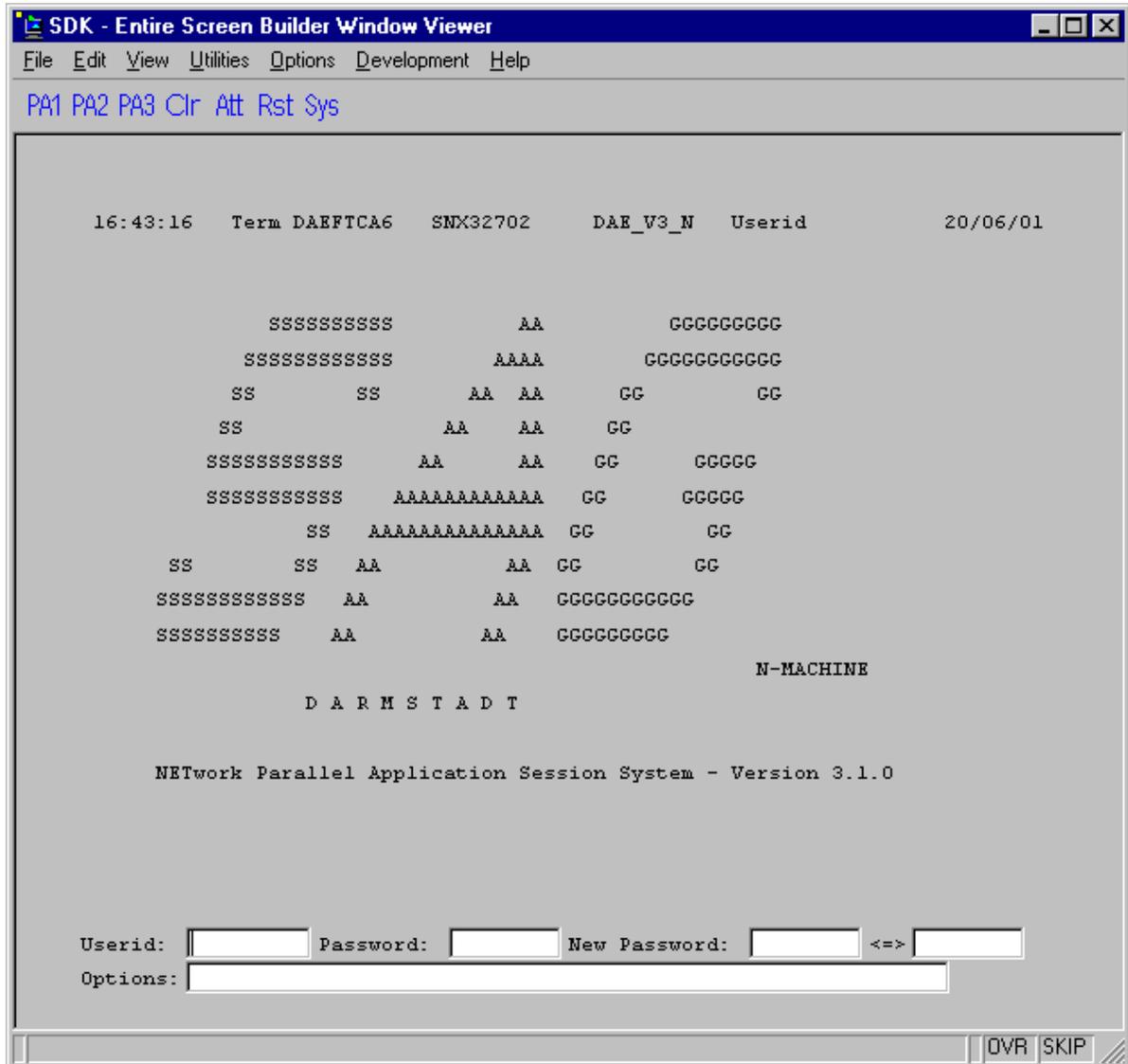
When a message appears indicating the connection to the viewer has been refused, the Entire Screen Builder Server has not yet been started (see above).

▶ **To start the Windows Viewer**

1. From the **Session** menu of the SDK, choose **Connect**.
Or click the following toolbar button:



- The host session is displayed in the Windows Viewer.
2. Use the Windows Viewer to log on to your application.
For example:



When no rules have been defined, only the built-in rules are applied: edit boxes are shown instead of input fields, and double-clicking the left mouse button is equivalent to pressing the ENTER key. Not many differences will be noted in relation to the original character screen. You navigate through your application as usual.

Do not close the Windows Viewer in which your application is shown. Leave it active during the whole course of this tutorial.

You can now proceed with the next section: Defining Basic Rules in Global Scope.

Defining Basic Rules in Global Scope

The transformation rules defined in global scope will be applied each time no other scope (application scope or map scope) is detected.

This section provides the following information:

- Opening Global Scope
 - Defining Font and Colors in Global Scope
 - Checking How the Rules for Global Scope are Applied
 - Saving a Character Screen as a Screen File
 - Defining an Application
 - Checking How the Rules for Application Scope are Applied
 - Defining the Last Rules Used
-

Opening Global Scope

As long as an application has not been defined, only global scope is available.

▶ To open global scope

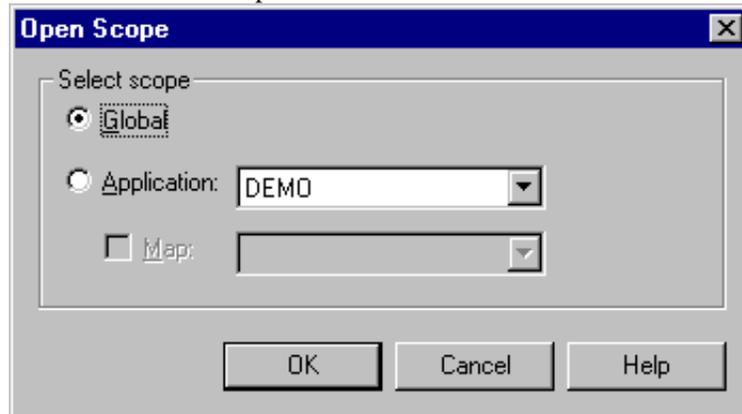
1. From the **File** menu of the SDK, choose **Open Scope**.

Or click the following toolbar button:



The "Open Scope" dialog box appears.

2. Select the "Global" option button.



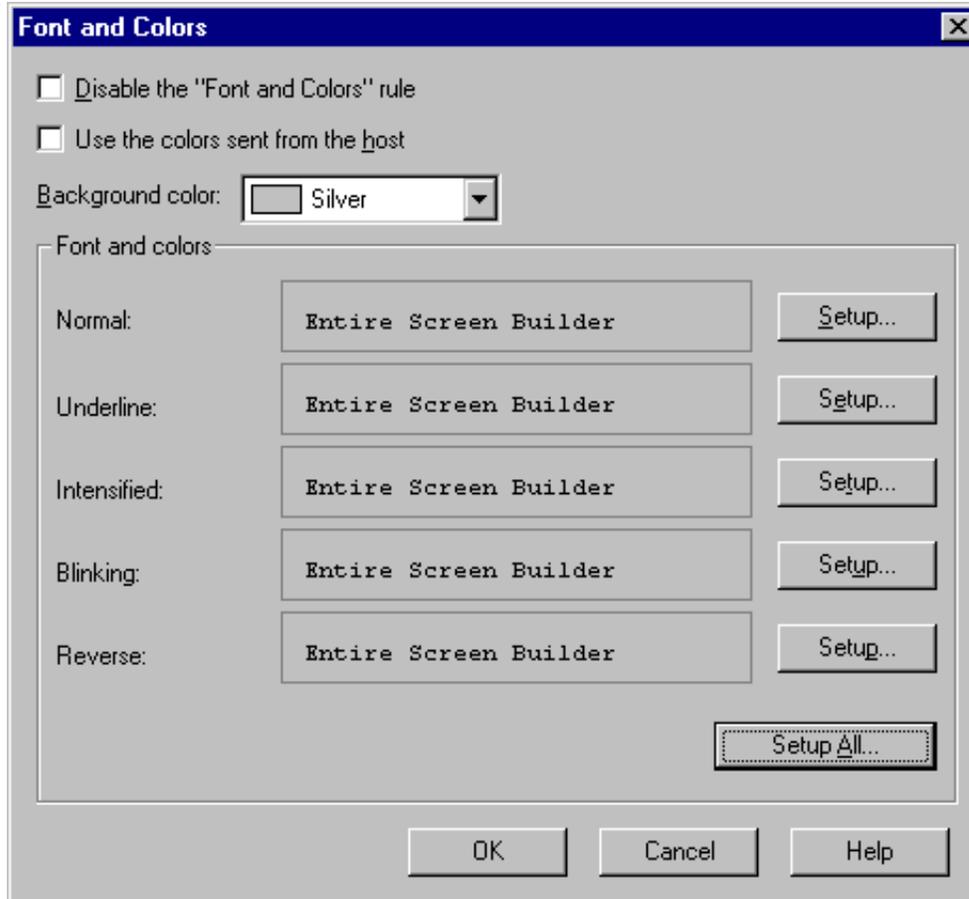
3. Choose the **OK** button to open global scope.

Defining Font and Colors in Global Scope

You will now define a simple basic rule that applies to all of your host screens. More basic rules will be defined later when you work in application scope.

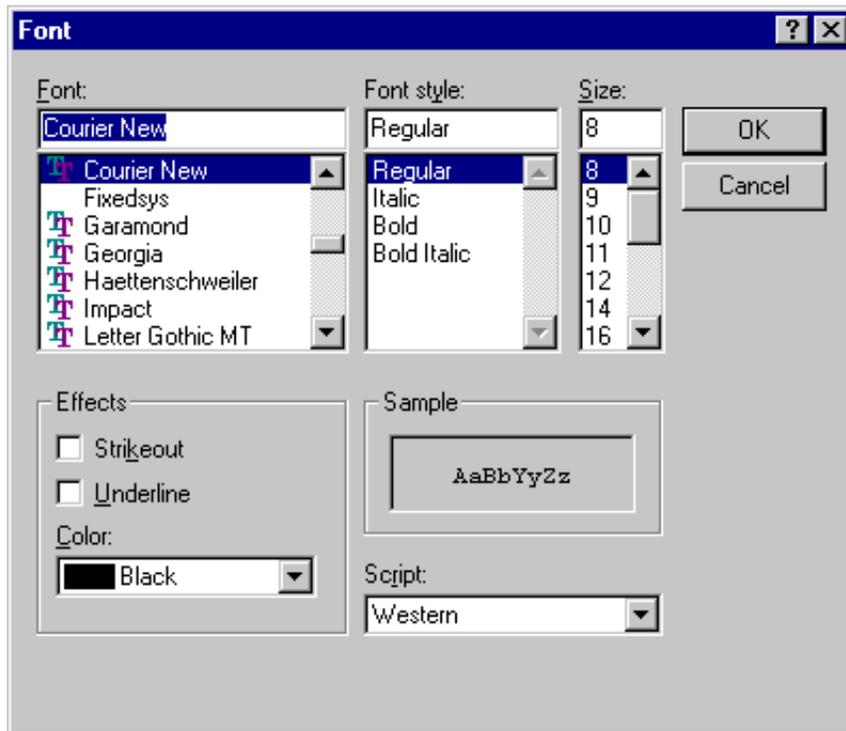
► To modify font and/or colors

1. From the **Basic** menu, choose **Font and Colors**.
The "Font and Colors" dialog box appears.
2. Make sure that this rule is not disabled (if it is disabled, remove the checkmark from the "Disable the Font and Colors rule" check box).



The settings for blinking are ignored in a mainframe session. They are only used in a UNIX or OpenVMS session.

3. Choose the **Setup All** button to change the font and color for all attributes shown in the dialog box.
The "Font" dialog box appears.



4. Select another color (for example, "Navy").
If you want, you can also define another font.
5. Choose the **OK** button.
The "Font and Colors" dialog box now shows the new settings.
6. Choose the **OK** button to close the "Font and Colors" dialog box.

Checking How the Rules for Global Scope are Applied

You will now check how the rule you have just defined is applied in the Windows Viewer.

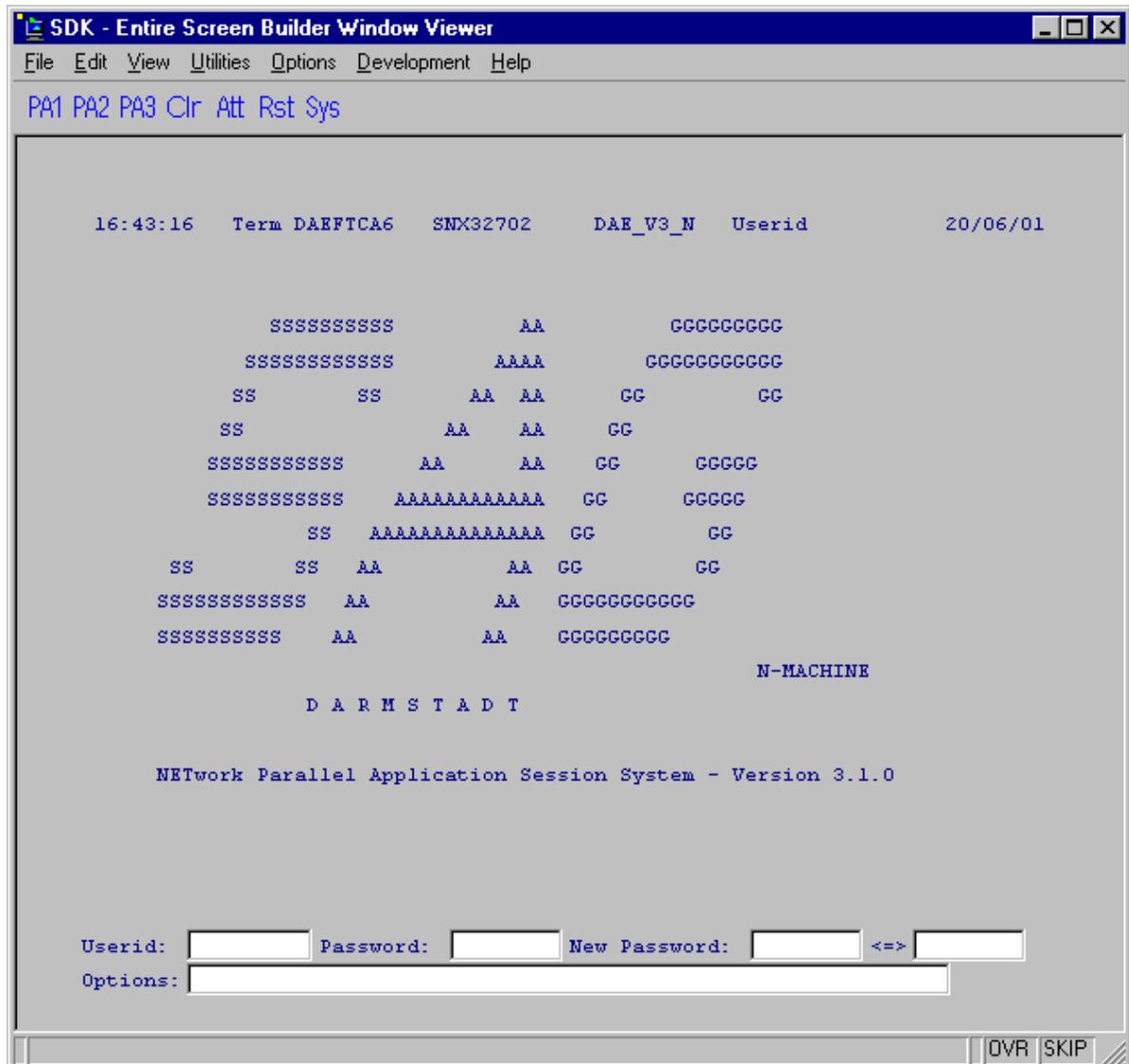
The Windows Viewer should still be active in the background.

Note:

The **Reload Rules** command is only available when you have installed a development version of Entire Screen Builder.

▶ To check the rules in the Windows Viewer

1. Go to the Windows Viewer.
2. From the **Development** menu, choose **Reload Rules**.
This reloads the rules and refreshes the screen. With the new color you have defined in the above exercise, a host screen may now look as follows:



Saving a Character Screen as a Screen File

You can capture and save the character screens of your application and use them as templates for defining the rules. To access and save the screens, you have to use the Windows Viewer.

The screen you will now capture is later used as a template for defining rules in application scope. It is therefore recommended that you capture a screen which contains many standard elements of your application. In this tutorial, the Con-nect menu will be used.

Note:

It is also possible to capture and save each screen that you access automatically. In this case, all screens received from the host are automatically shown in the scope window. The exercises below, however, assume that the autocapture function has been disabled. To check the settings for the autocapture function, choose **Configure Capture** from the **File** menu of the SDK.

▶ To capture a screen

1. In the Windows Viewer, access the screen you want to capture. For example:

The screenshot shows a window titled "SDK - Entire Screen Builder Window Viewer" with a menu bar (File, Edit, View, Utilities, Options, Development, Help). The terminal content is as follows:

```

PA1 PA2 PA3 Clr Att Rst Sys

16:52          * * * C O N - N E C T 3 * * *          20.Jun.2001
Cabinet LS          Menu          Wednesday

Command  Description          June          July
-----  -
I  Inbasket          Tue   5 12 19 26   3 10 17 24 31
S  Send Memo          Wed   6 13 20 27   4 11 18 25
P  Phonepad          Thu   7 14 21 28   5 12 19 26
          Fri  1  8 15 22 29   6 13 20 27
F  Display Folder          Sat  2  9 16 23 30   7 14 21 28
D  Display Document          Sun  3 10 17 24   1  8 15 22 29
W  Write Document
          New phone messages:  1
N  Notepad          New mail items:  19
B  Bulletin Boards          New invitations:  12
C  Calendar

T  Desktop

Enter a command, press a PF-key, or enter * to display commands
Command /  /
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---
Help      Quit  In   Send  Foldr Docs Note Cal      Last Home
  
```

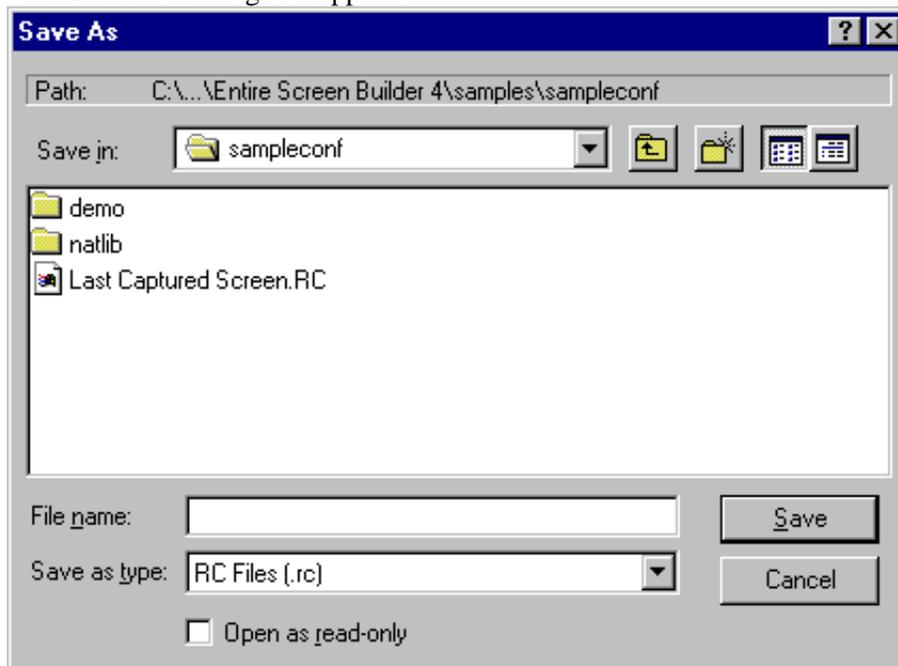
At the bottom right of the window, there are buttons for "OVR" and "SKIP".

2. From the **File** menu of the SDK, choose **Capture Screen**.
The screen which is currently shown in the Windows Viewer is now shown in the global scope window of the SDK. It is shown as the normal character map as sent from the host (i.e. transformation rules are not applied). The input fields are indicated by blue boxes. In the next exercise, you will use this screen as a template for defining an application.

▶ **To save a captured screen as a screen file**

1. From the **File** menu of the SDK, choose **Save Screen File**.

The "Save As" dialog box appears.



2. Specify a name for your screen file (for example, "connect").
You need not specify the extension "rc" since it is automatically provided.
3. Choose the **Save** button.

Defining an Application

You can define different applications. For each of these applications, you can define different rules.

The term "application" does in this case not refer to a program, but to a set of rules that is to be applied to certain screens of a program. For one program, several applications can thus be defined. This is helpful, for example, if some of the screens follow another standard.



It is only possible to detect an application when you are working in global scope.

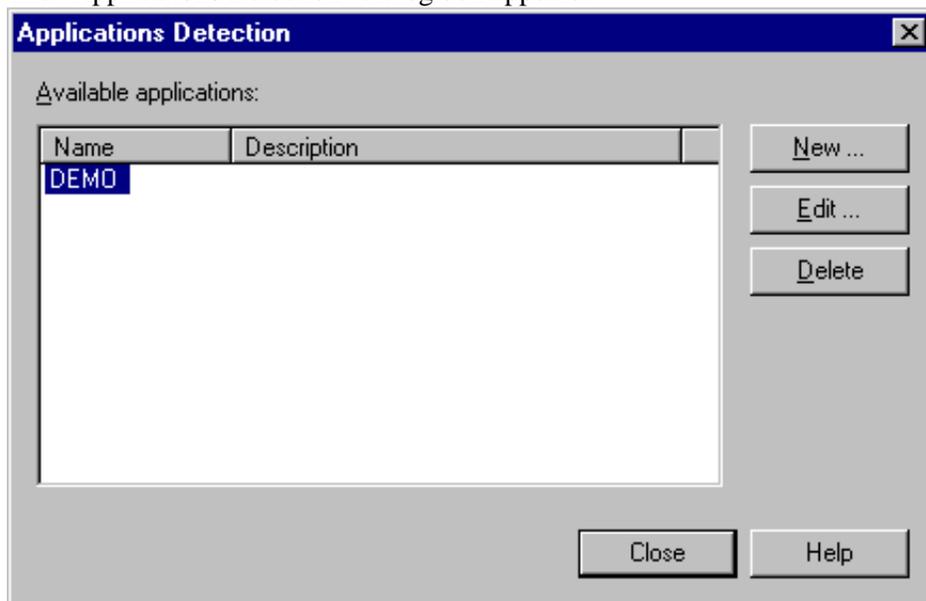
▶ To detect an application

1. From the **File** menu, choose **Applications Detection**.

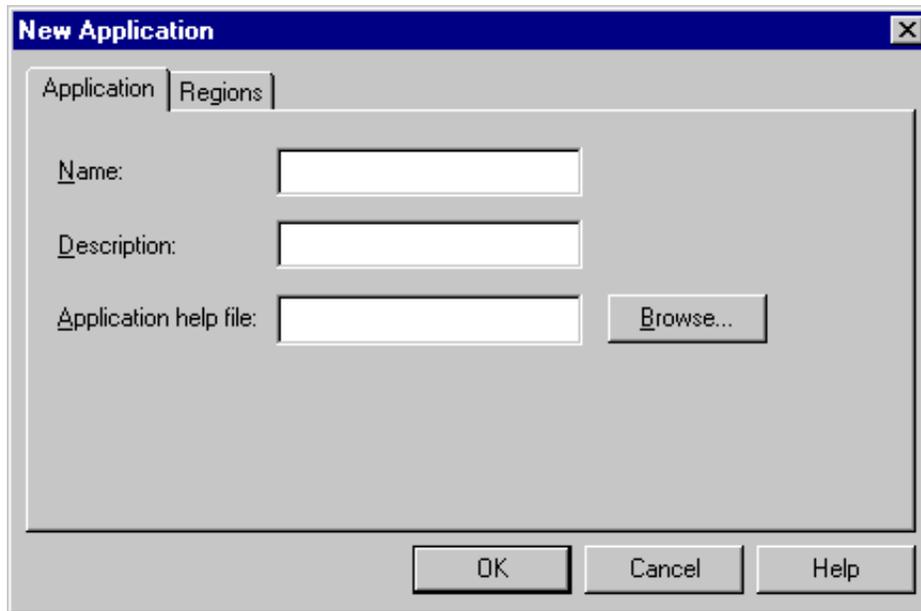
Or click the following toolbar button:



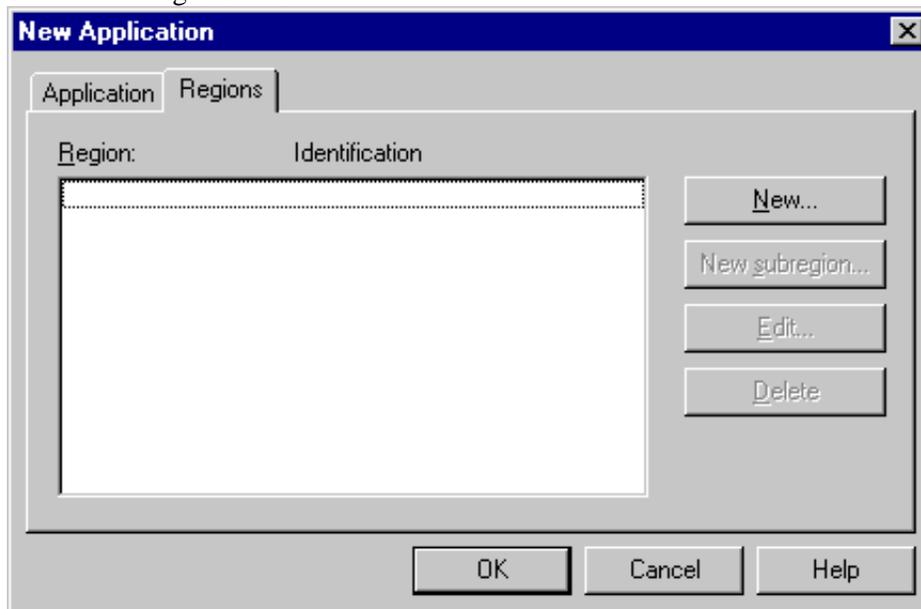
The "Applications Detection" dialog box appears.



2. To add an application, choose the **New** button.
The "New Application" dialog box appears.

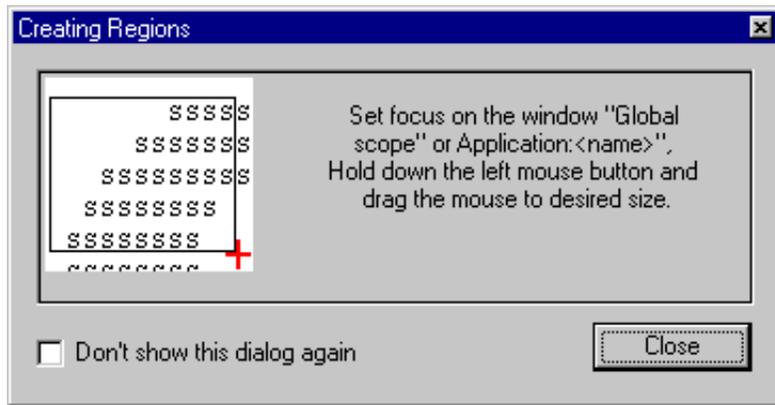


3. In the "Name" text box, specify a name for your application (for example, "Con-nect").
4. Select the "Regions" tab.



You now have to define a region, i.e. a unique string which appears on each host screen which belongs to your application. Whenever this string is detected on a screen, the rules that have been defined for this application will be applied.

5. Choose the **New** button.
It may happen that the "Creating Regions" dialog box appears with instructions on how to create a region. Display of this dialog box depends on the toggle command **Dialog "Creating Regions"** in the **View** menu.



6. When this dialog box appears, select the "Don't show this dialog again" check box and choose the **Close** button.
The dialog box will no longer be shown when you define regions.
The mouse pointer is now shown as a cross.
7. Use the mouse to select a unique string in the global scope window.
When you release the mouse button, the "New Application" dialog box is shown again. It now contains the string you have selected and its coordinates (row and columns). A region is indicated by the letter R which is shown to the left of the coordinates.
The string which is shown to the right of the coordinates is the text that has to be detected in the defined region of the host screen in order to identify the application.
8. Choose the **OK** button to save your modifications.
The new application is now shown in the "Applications Detection" dialog box.
9. Choose the **Close** button to close the "Applications Detection" dialog box.

Checking How the Rules for Application Scope are Applied

When the application you have just defined is detected in the viewer, the font and colors you have defined for global scope are no longer applied. Since you have not yet defined another font or color for application scope, the defaults are used.

To check the rules in the Windows Viewer

1. From the **Development** menu of the Windows Viewer, choose **Reload Rules**.
The Windows Viewer should still show the screen that you saved as a screen file.
2. If this screen is not shown, invoke it.
This screen should be shown with the default font (Courier New 8) and color (black).
3. Leave the application (i.e. access another screen on which the defined application cannot be detected).
The default font and color is still used (not the font and color you have defined for global scope).
This is because of the default setting for the "Last Rules Used" option (see below).

Defining the Last Rules Used

Using the "Last Rules Used" option, you can define the rules that are to be applied to a character screen for which an application has not been defined. By default, the rules of the last detected application are applied. You will now change this setting.

▶ To define the last rules used

1. Go back to the SDK.
2. From the **Options** menu, choose **Last Rules Used**.

The "Last Rules Used" dialog box appears.



3. Select the "Global" option button.
4. Choose the **OK** button.
When an application cannot be detected, the rules defined for global scope will now be applied.
5. Go to the Windows Viewer.
6. From the **Development** menu, choose **Reload Rules**.
7. In the Windows Viewer, invoke a screen for which an application has not been defined.
The font and color you have defined for global scope should now be used.

You can now proceed with the next section: Defining Basic Rules in Application Scope.

Defining Basic Rules in Application Scope

In application scope, the transformation rules you define will be applied to a specific application. They overwrite the rules defined for global scope.

This section provides the following information:

- Opening Application Scope
 - Defining Font and Colors in Application Scope
 - Defining an Item Rule
 - Defining a Map Detection Rule
-

Opening Application Scope

Since you have defined an application in a previous exercise, you can now open application scope.

▶ To open application scope

1. From the **File** menu of the SDK, choose **Open Scope**.

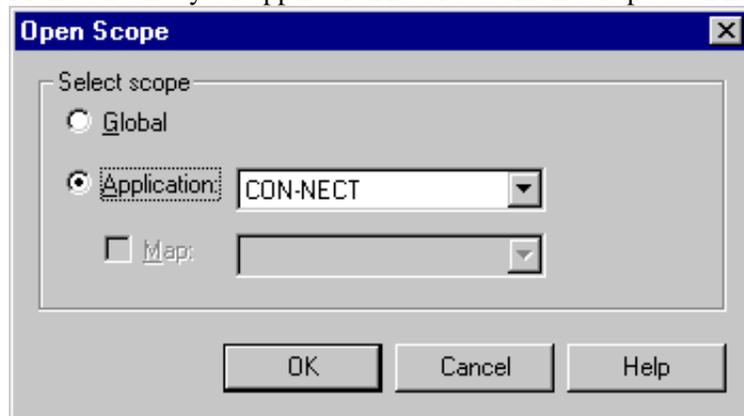
Or click the following toolbar button:



The "Open Scope" dialog box appears.

Select the "Application" option button.

2. Make sure that your application is selected in the drop-down list box. For example:



3. Choose the **OK** button.

If you are asked whether you want to save the changes to global scope, choose the **Yes** button.

Another scope window is now shown. The name of the application you have selected from the "Open Scope" dialog box is shown in the title bar of this window. You can now define the rules for this application.

Defining Font and Colors in Application Scope

You will now define a simple basic rule that only applies to the application you have defined.

▶ To modify font and/or colors

1. From the **Basic** menu, choose **Font and Colors**.
The "Font and Colors" dialog box appears.
2. Define another color for all attributes (for example, "Purple").
Do this as previously described in Defining Font and Colors in Global Scope.
3. Check how this rule is applied in the Windows Viewer.
When you reload the rules, your application should be shown with the newly defined color.

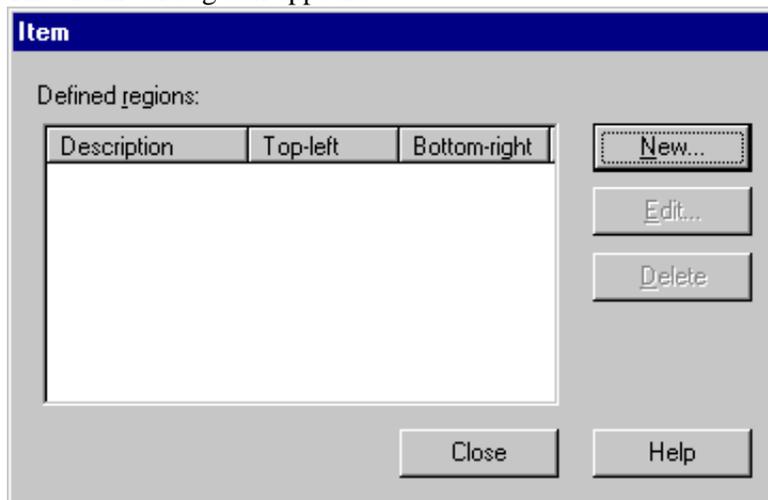
Defining an Item Rule

In this exercise, a Con-nect screen is used to illustrate the following features of the Item rule:

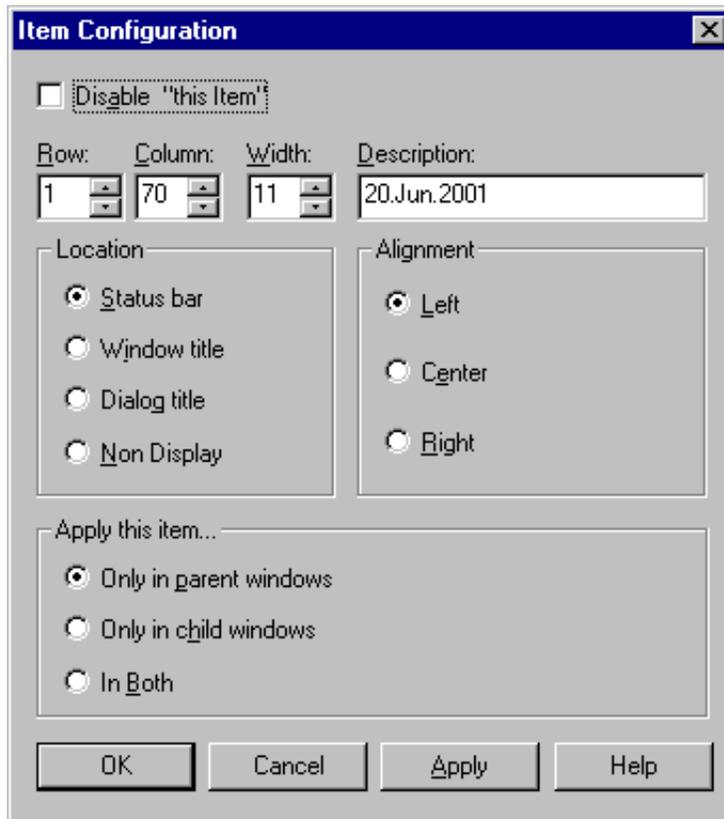
- Move the date to the status bar of the viewer.
- Move the cabinet ID to the title bar of the viewer.

▶ To move the date to the status bar

1. If you have not yet captured the Con-nect menu and saved it as a screen file, do this now and name it, for example, "connect".
2. Open this screen file in application scope.
3. From the **Basic** menu, choose **Item**.
The "Item" dialog box appears.



4. Choose the **New** button.
5. In the scope window, use the mouse to select the region containing the date (the upper right corner of the Con-nect screen).
The "Item Configuration" dialog box appears, showing the string that you have selected and its position in the screen (row, column and width).



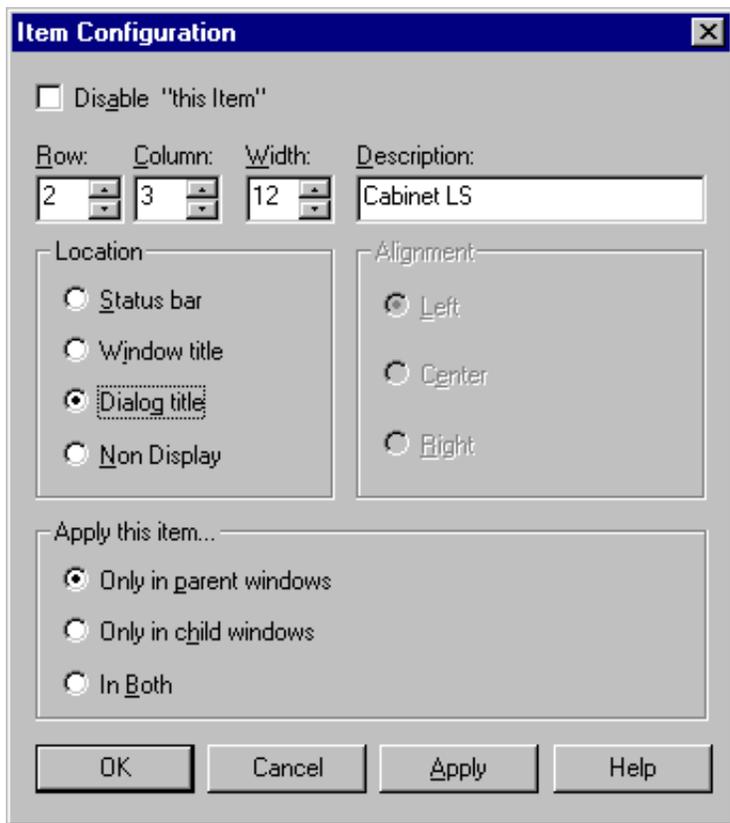
You can use the default values (status bar, left alignment) for this rule.

6. Choose the **OK** button.

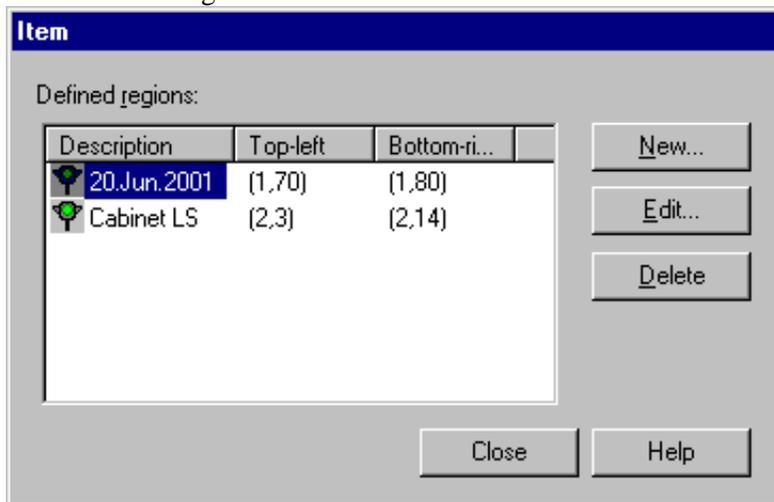
The new rule is now shown in the "Item" dialog box.

► To move the cabinet ID to the title bar

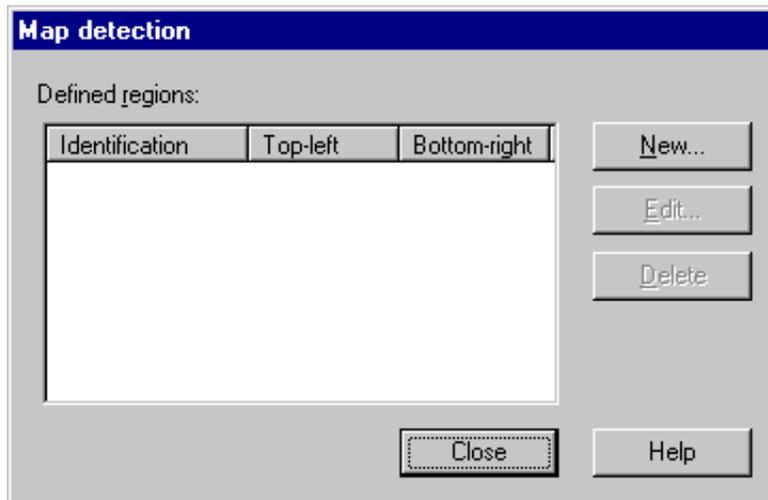
1. In the "Item" dialog box, choose the **New** button.
2. In the scope window, use the mouse to select the region containing the string "Cabinet" and the cabinet ID (the upper left corner of the Con-nect screen).
The "Item Configuration" dialog box appears, showing the string that you have selected and its position (row, column and width) in the screen.
3. Select the "Dialog title" option button.



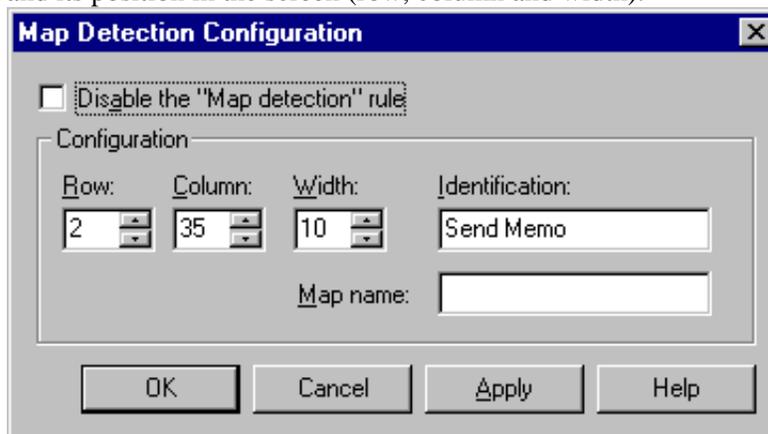
4. Choose the **OK** button.
The "Item" dialog box should now look as follows:



5. Choose the **Close** button to close the "Item" dialog box.
6. Check how this rule is applied in the Windows Viewer.
The cabinet ID should be shown in the title bar and the date on the left side of the status bar. Cabinet ID and date should no longer be shown in the screen.



4. Choose the **New** button.
5. In the scope window, use the mouse to select the region which contains the string that is to be used to detect the screen. In this case, this is the name of the screen: "Send Memo".
The "Map Detection Configuration" dialog box appears, showing the string that you have selected and its position in the screen (row, column and width).



6. In the "Map name" text box, specify the name that is to be used for map scope (for example, "Send").
The name can be up to 8 characters long.
7. Choose the **OK** button.
The new map detection rule is now shown in the "Map Detection" dialog box.
8. Choose the **Close** button to close the "Map Detection" dialog box.
9. Check how this rule is applied in the Windows Viewer.
You will notice that the "Send Memo" screen is displayed with the default color. This is because you have not yet defined any rules for map scope. Since the rules you have defined for application scope do not apply to screens for which a Map Detection rule has been defined, the cabinet ID and date are shown within the screen (not in the title bar and status bar as defined in a previous exercise).

Before you will continue with the next exercise, you will save and close the current scope.

10. Go back to the SDK.
11. From the **File** menu, choose **Save Scope**.
Or click the following toolbar button:



12. From the **File** menu, choose **Close Scope**.

You can now open map scope as described in the following section: Defining Basic Rules in Map Scope.

Defining Basic Rules in Map Scope

In map scope, the transformation rules you define will be applied to a specific character screen (also called "map"). They overwrite the rules defined for application scope.

This section provides the following information:

- Opening Map Scope
 - Defining the Delete Lines Rule
 - Defining the Image Rule
-

Opening Map Scope

Since you have defined a Map Detection rule in a previous exercise, you can now open map scope.

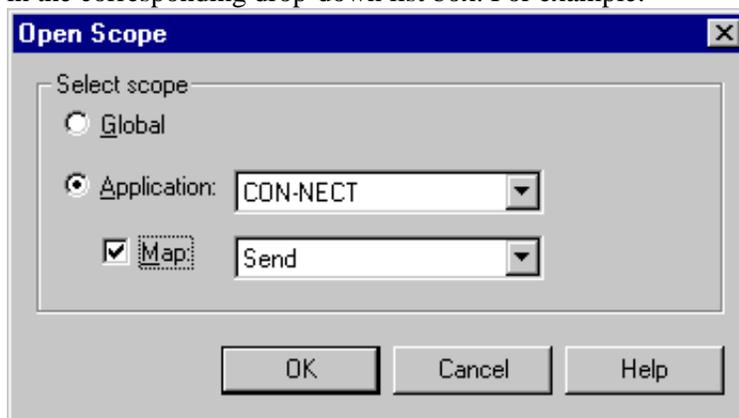
▶ To open map scope

1. From the **File** menu, choose **Open Scope**.
Or click the following toolbar button:



The "Open Scope" dialog box appears.

2. Make sure that the "Application" option button is selected and the name of your application (Con-nect) is shown in the corresponding drop-down list box.
This is the scope in which you have defined the Map Detection rule.
3. Select the "Map" check box.
4. Make sure that the map name which you have defined with the Map Detection rule (Send) is shown in the corresponding drop-down list box. For example:



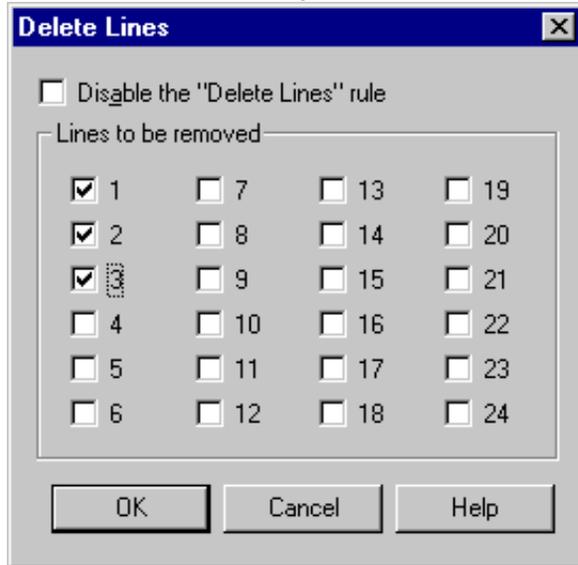
5. Choose the **OK** button.
The scope window is now shown. The name of the application and map you have selected from the "Open Scope" dialog box are shown in the title bar of this window.

Defining the Delete Lines Rule

You will now remove the first 3 lines of the "Send Memo" screen so that they are not displayed in the viewer. You will later place an image in this region.

▶ To define the lines that are to be removed

1. From the **Basic** menu, choose **Delete > Lines**.
The "Delete Lines" dialog box appears.
2. Select the check boxes for lines 1, 2 and 3.
The "Delete Lines" dialog box should now look as follows:



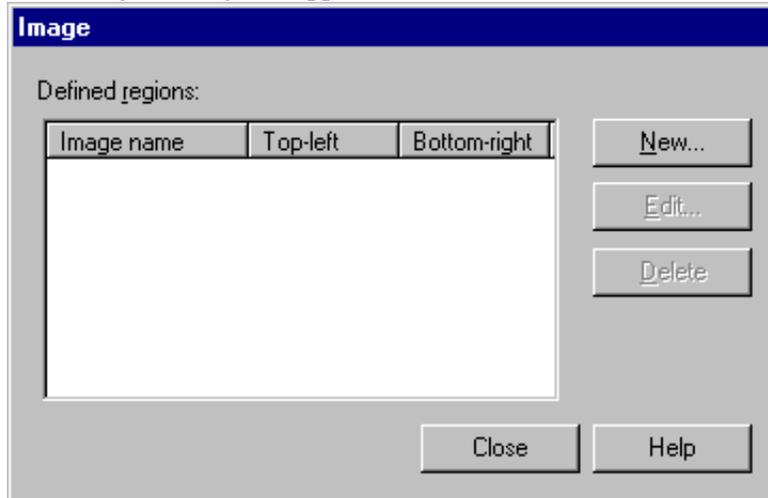
3. Choose the **OK** button.
4. Check how this rule is applied in the Windows Viewer.
The first 3 lines of the "Send Memo" screen should not be shown. The other Con-nect screens are not affected, since you defined this rule in map scope.

Defining the Image Rule

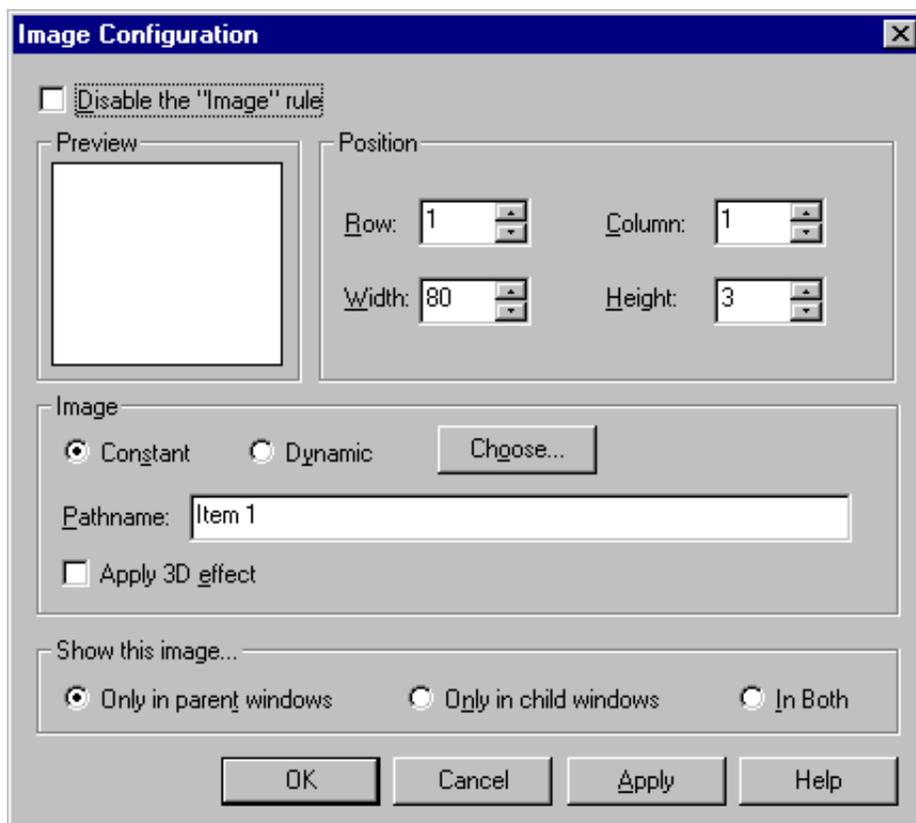
You will now place an image in the first 3 lines of the "Send Memo" screen.

▶ To place an image in the screen

1. In the SDK, make sure that the screen file containing the "Send Memo" screen is shown in the scope window.
You have already saved this file in a previous exercise.
2. From the **Basic** menu, choose **Image**.
The "Image" dialog box appears.



3. Choose the **New** button.
4. In the scope window, use the mouse to select the first 3 lines.
This is the region that is to contain the image.
The "Image Configuration" dialog box appears.



You will now define a constant image (this is the default). The image is delivered with Entire Screen Builder.

5. Choose the **Choose** button in the "Image" group box.
The "Open" dialog box appears.
6. Select the following image:
..\Entire Screen Builder 4\samples\sampleconf \demo\gifs\Sag.gif
7. Choose the **Open** button.
In the "Image Configuration" dialog box, a preview is now shown of the selected image. The path to this image is shown in the "Pathname" text box.
8. Choose the **OK** button.
The new rule is now shown in the "Image" dialog box. The image is shown in the defined region of the scope window.
9. Choose the **Close** button to close the "Image" dialog box.
10. Check how this rule is applied in the Windows Viewer.
The image should be shown in the first 3 lines of the "Send Memo" screen. The other Con-nect screens are not affected, since you defined this rule in map scope.
Before you will continue with the next section, you will save and close the current scope.

11. Go back to the SDK.
12. From the **File** menu, choose **Save Scope**.
Or click the following toolbar button:



13. From the **File** menu, choose **Close Scope**.

You can now proceed with the next section: Defining Extended Rules in Application Scope.

Defining Extended Rules in Application Scope

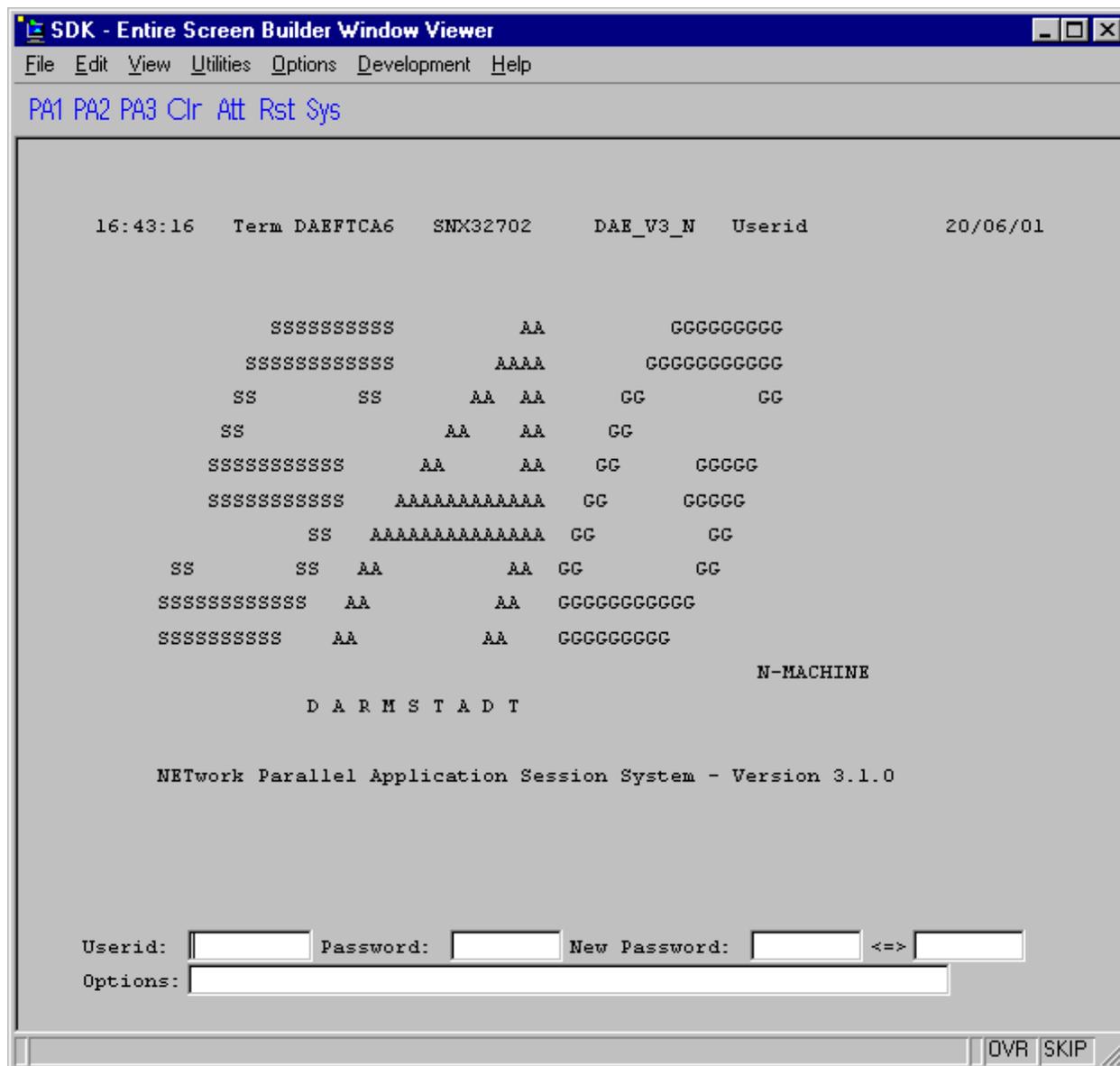
Extended rules apply to dialogs that have been created using a resource editor. You can use any resource editor that can create standard Windows resource DLLs (dynamic link libraries), for example Microsoft Visual Studio. Other editors, such as Visual Basic 6.0, use a different format for resource DLLs and can therefore not be used with Entire Screen Builder.

The following topics are covered below:

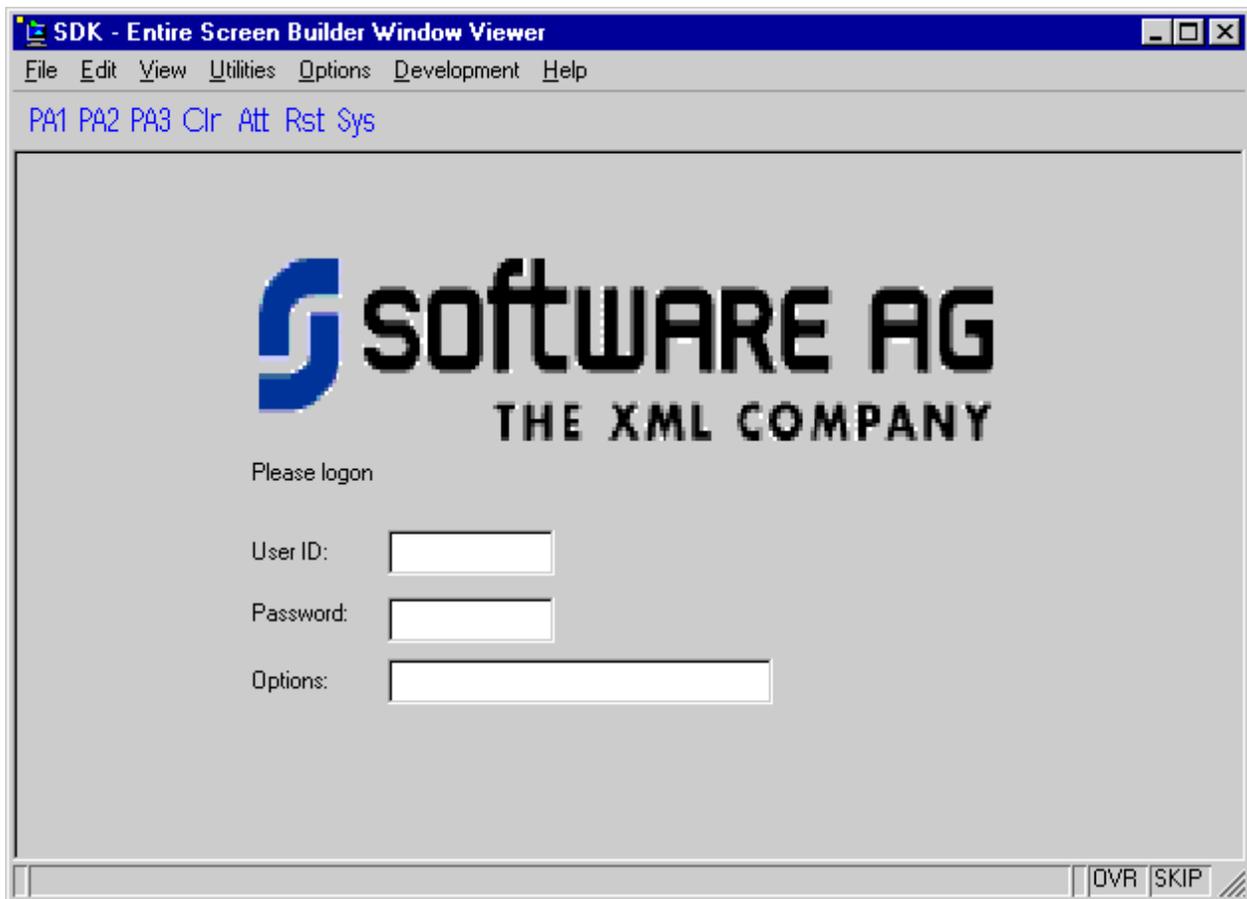
- About the Dialog Used in This Tutorial
 - Preparations
 - Opening the DLL
 - Defining the Corresponding Input Fields
 - Defining an Image
 - Saving the DDT and Building the BDD
 - Detecting the Screen on Which the Extended Rules are to be Applied
-

About the Dialog Used in This Tutorial

In the following exercises, you will define extended rules for a logon screen. This is illustrated, using the following character screen:



When all extended rules have been defined, the dialog for this logon screen will look as follows:



Preparations

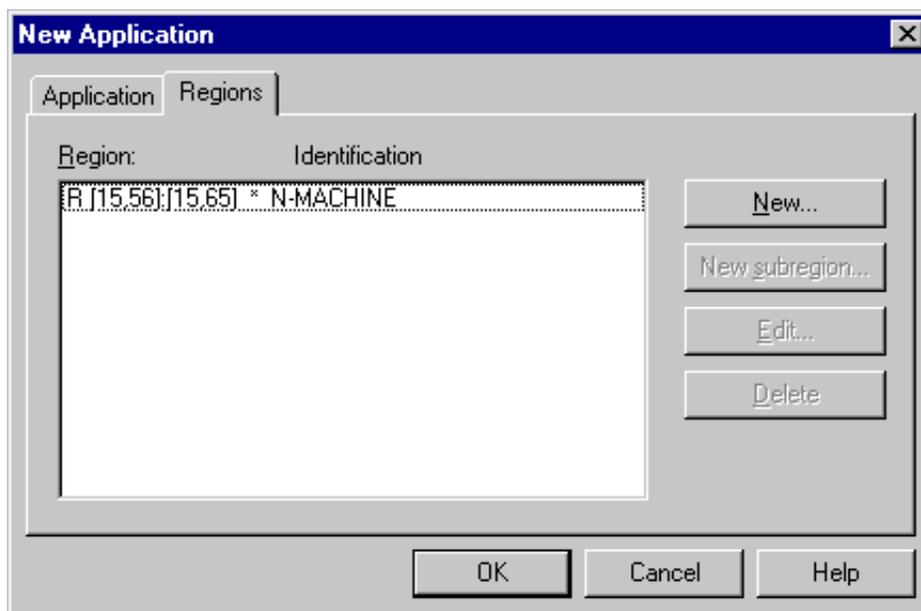
Before you can define the extended rules, you have to proceed as described below.

Note:

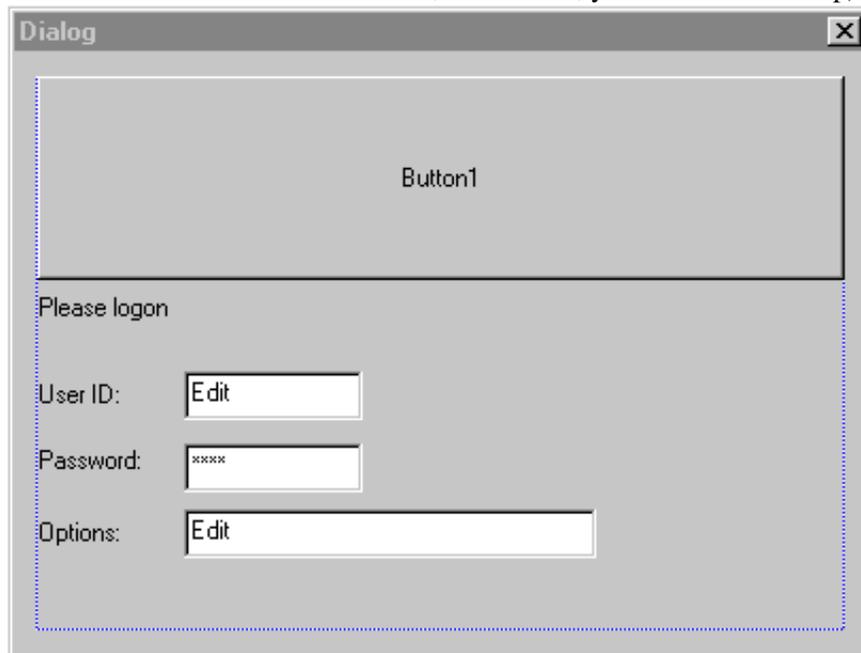
Instead of creating a DLL yourself as described in the following exercise, you can also use the DLL that is delivered with Entire Screen Builder. In this case, you need not work with a resource editor.

► To be done before you start with the exercises below

1. Open global scope.
2. Capture the logon screen and save it as a screen file.
3. Define an application which is able to detect the logon screen and call it "Logon".
For example:



4. In the resource editor, create a DLL containing the following logon dialog (or use the DLL that is delivered with Entire Screen Builder; in this case, you can omit this step).



For the image, a push button control has to be created. Make sure that the "Owner draw" style is defined.

Change the dialog ID to "LOGONDLG". This ID must be enclosed in quotation marks.

For a description on how to create a DLL containing a dialog using Microsoft Visual C++, see Using a Resource Editor in the SDK documentation.

5. In the SDK, open application scope for the application you have named "Logon".
6. Make sure that the screen file containing the logon screen is shown in the scope window.

Opening the DLL

You can only open a DLL when you are working in application scope.

▶ To open a DLL

1. From the **File** menu of the SDK, choose **Open DLL**.

Or click the following toolbar button:



The "Open DLL" dialog box appears.

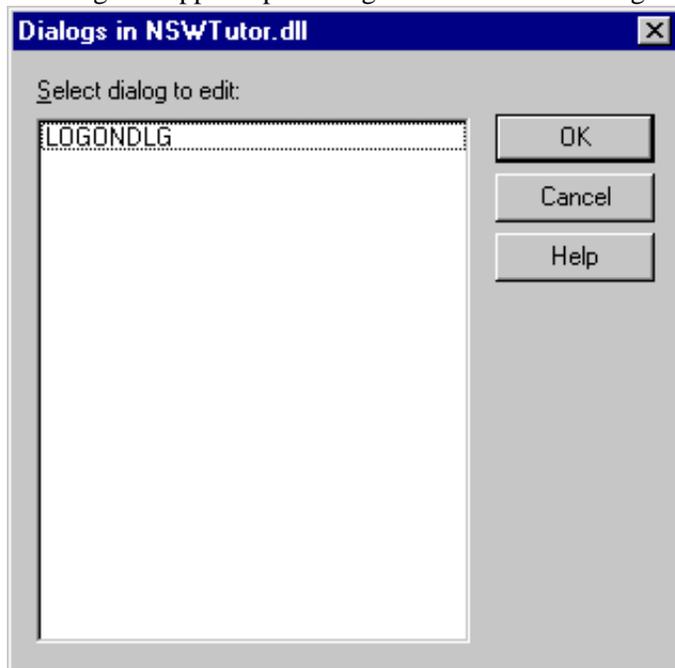
2. Select the DLL you have just created.

Or, if you want to use the DLL that is delivered with Entire Screen Builder, select the following DLL:

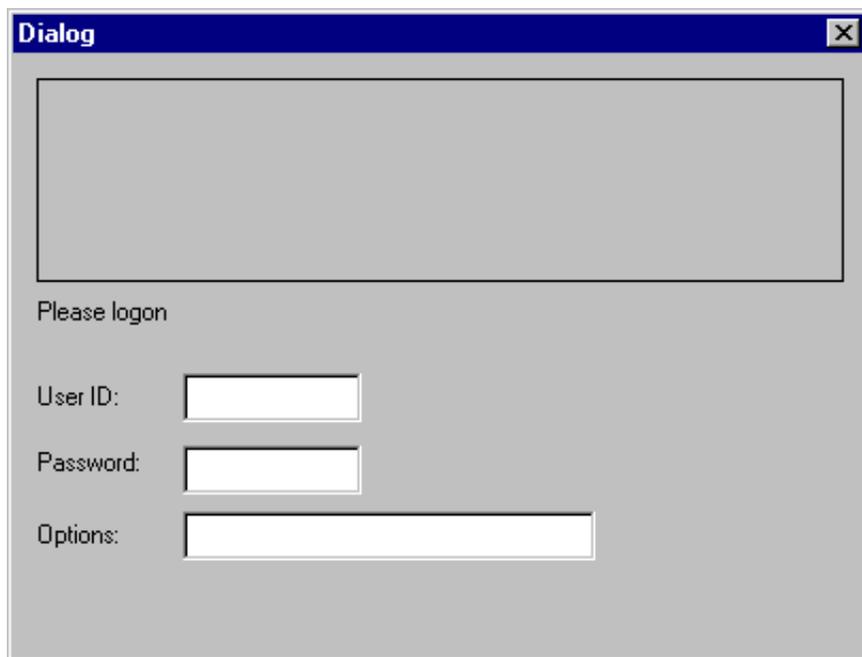
..\Entire Screen Builder 4\samples\sampleconf\demo\NSWTutor.dll

3. Choose the **Open** button.

A dialog box appears providing for selection all dialogs that have been defined in the DLL.



4. Select the dialog.
5. Choose the **OK** button.
The dialog is now shown.

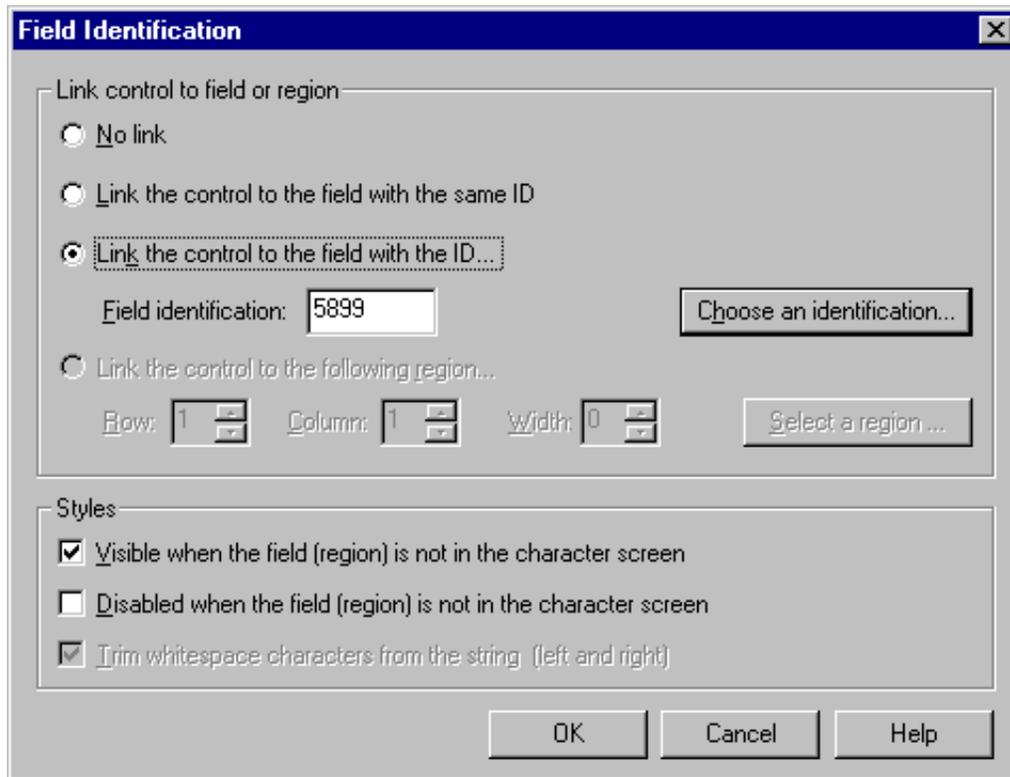


Defining the Corresponding Input Fields

You now have to associate the edit boxes in the dialog with the corresponding input fields of the character screen.

▶ To define the corresponding input field for an edit box

1. In the dialog, select the "User ID" edit box.
2. From the **View** menu, choose **Corresponding Application Field**.
Or click the right mouse button and from the resulting context menu, choose **Corresponding Application Field**.
The "Field Identification" dialog box appears.
3. Select the "Link the control to the field with the ID..." option button.
4. Choose the **Choose an identification** button.
The scope window containing the screen file is now shown. All input fields are shown as blue boxes.
5. Click the input field that you want to associate with the "User ID" edit box.
The identification of this field is now shown in the "Field Identification" text box.



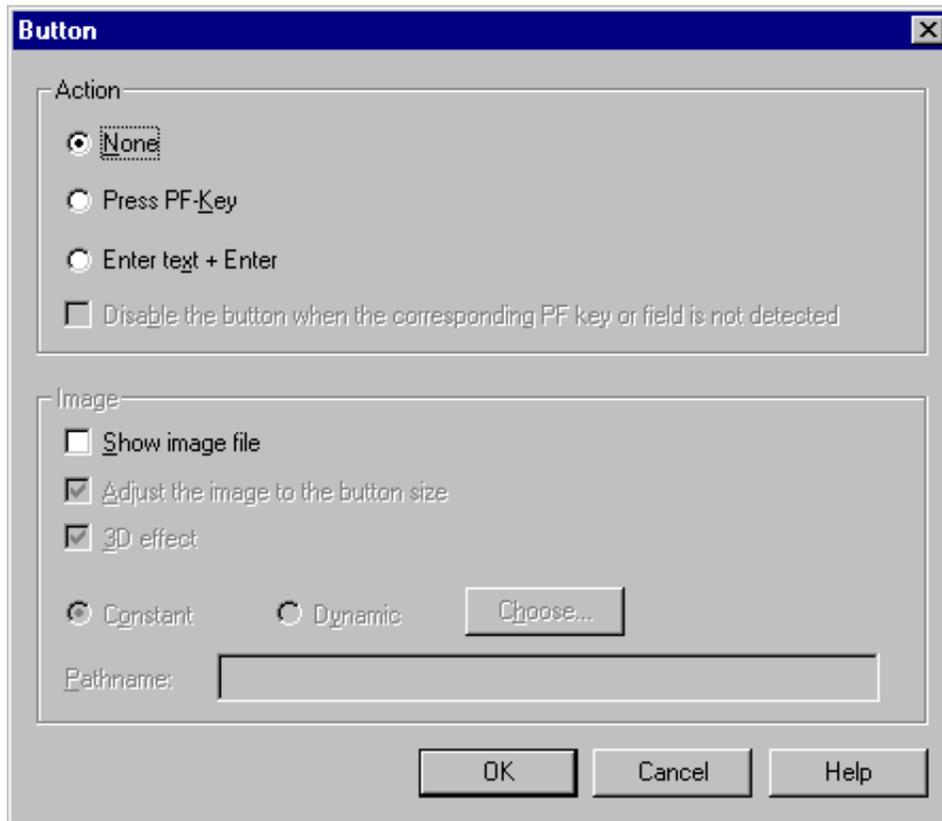
6. Choose the **OK** button.
7. Repeat the above steps for the edit boxes "Password" and "Options".

Defining an Image

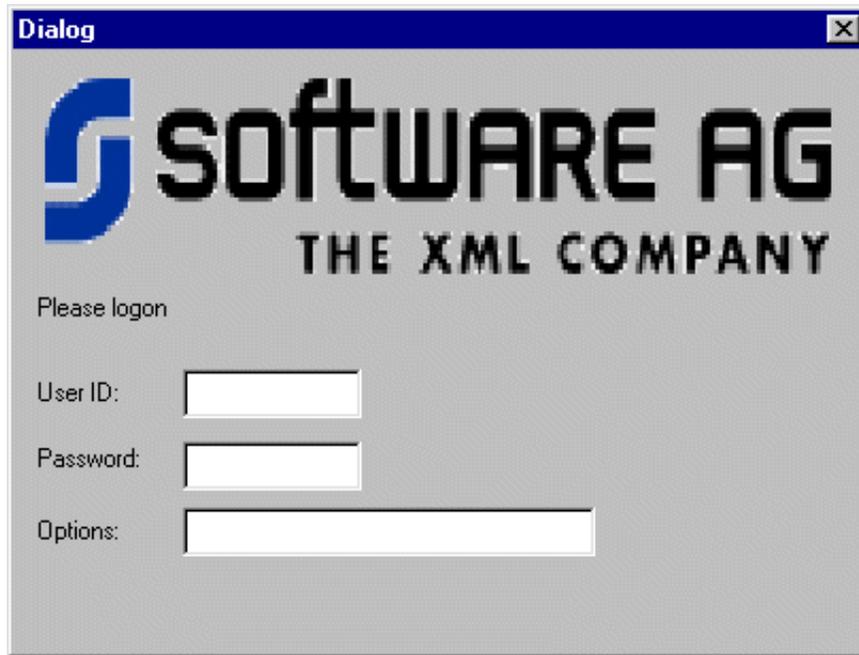
You will now define the image that is to be shown on the push button.

► To define the image

1. In the dialog, select the push button (i.e. the rectangle at the top of the dialog).
2. From the **View** menu, choose **Control Properties**.
Or click the right mouse button and from the resulting context menu, choose **Control Properties**.
The "Button" dialog box appears.



3. Make sure that the "None" option button is selected.
No action will be taken when the user chooses the push button. This option is always used if you only want to display an image.
4. Select the "Show image file" check box.
This check box is only available when the "Owner draw" style has been defined in the resource editor. When this check box is selected, all options in the "Image" group box will be available.
5. Disable the "3D effect" check box.
The image will then be shown without a border.
6. Make sure that the "Constant" option button is selected.
7. Choose the **Choose** button.
The "Open" dialog box appears.
8. Select the following image:
..\Entire Screen Builder 4\samples\sampleconf\demo\gifs\saglogo.gif
9. Choose the **Open** button.
In the "Button" dialog box, the path to the image is now shown in the "Pathname" text box.
10. Choose the **OK** button.
The dialog should now look as follows:



Saving the DDT and Building the BDD

All definitions for the dialog controls are saved in a DDT (Dialog Definition Table). This file is always created in the same folder as the DLL containing the dialogs. It receives the same name as the DLL.

The DDT is the basis for building the BDD (Binary Dialog Definition). The BDD contains the DLL and DDT in binary format. The BDD is also created in the same folder as the DLL, and it also receives the same name as the DLL.

▶ To save the DDT

- From the **File** menu, choose **Save DDT File**.
Or choose **Save DDT** from the context menu that is invoked by pressing the right mouse button.

▶ To build the BDD

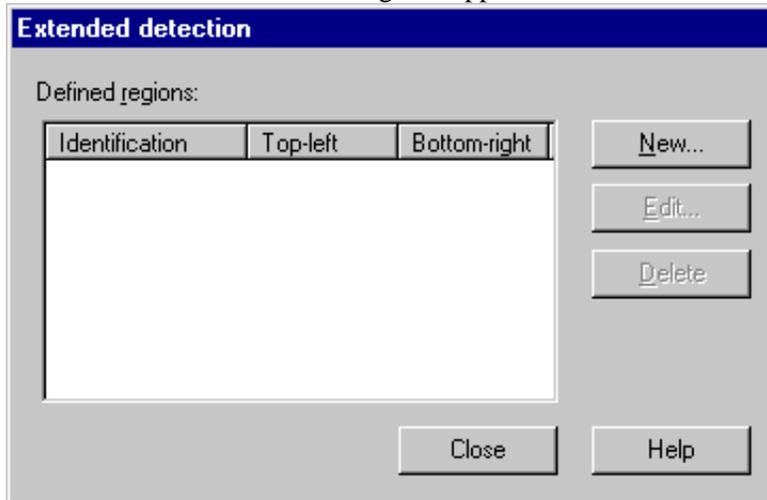
- From the **Extended** menu, choose **Build BDD**.
Or choose **Build BDD** from the context menu that is invoked by pressing the right mouse button.
Information about the build process is now shown in the output window.

Detecting the Screen on Which the Extended Rules are to be Applied

When the BDD has been built, you have to associate your extended dialog with the character screen for which it is to be displayed. To do so, you select a line in the screen which uniquely identifies this screen.

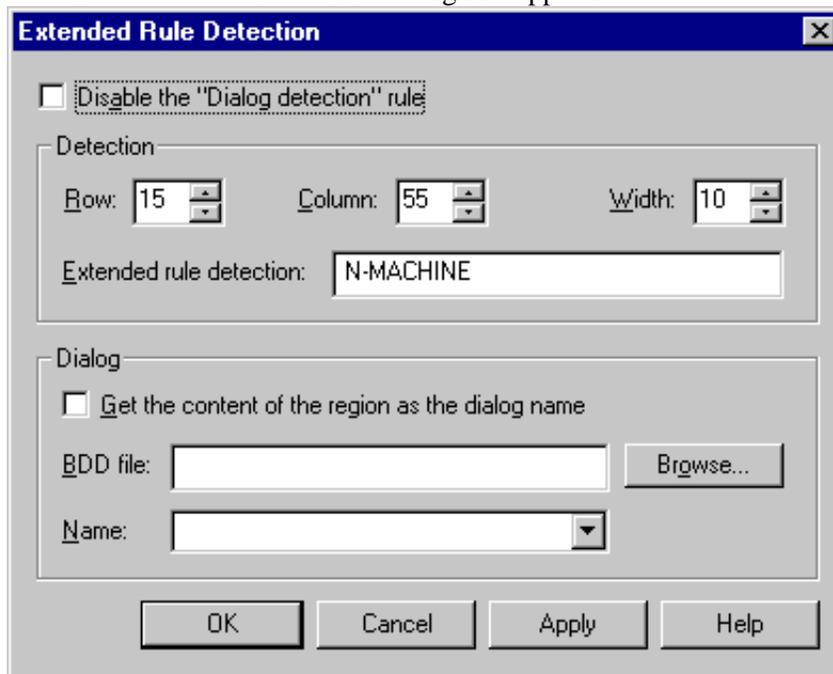
► To define the Detection rule

1. From the **Extended** menu, choose **Detection**.
The "Extended Detection" dialog box appears.



2. Choose the **New** button.
3. In the scope window, use the mouse to select the region which contains the string that is to be used to detect the screen.

The "Extended Rule Detection" dialog box appears.



4. In the "BDD file" text box, specify the path to the BDD file containing the extended dialog for the character screen.
Or choose the **Browse** button to select the BDD file from the "Open" dialog box. When you used the NSWTutorial.dll, select the following file:
..\Entire Screen Builder 4\samples\sampleconf\demo\NSWTutor.BDD.
The names of all extended dialogs contained in the BDD file are now available in the "Name" drop-down list box. Since this BDD file contains only one dialog, you need not select another dialog.
5. Choose the **OK** button.
6. Choose the **Close** button to close the "Extended Detection" dialog box.
7. From the **File** menu, choose **Save Scope**.
Or click the following toolbar button:

8. Check how your extended dialog is shown in the Windows Viewer.
It should look as shown at the beginning of this section.
You have successfully completed the tutorial. You can now close the SDK. The Windows Viewer is automatically closed when you close the SDK.