



Entire Screen Builder

Version 5.2.1

System Management Hub

This document applies to Entire Screen Builder Version 5.2.1 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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System Management Hub

The System Management Hub is used to administrate the Entire Screen Builder Server. This also includes the administration of host sessions, color schemes, key schemes, user profiles and group profiles.

The administration component for the Entire Screen Builder Server is implemented as a client-server application which runs in the System Management Hub, the standard, GUI-based, central point of administration for Software AG's products. It is installed with Entire Screen Builder.

Data that is sent between the Entire Screen Builder Server and the System Management Hub is not encrypted. It is assumed that there are secure links between your Entire Screen Builder Server and the client workstations on which you run the System Management Hub.

This documentation is organized under the following headings:

- Getting Started How to start the System Management Hub and how to access the administration component for the Entire Screen Builder Server. General information about the graphical user interface and how to refresh the display.
- Administrators How to authorize other users to administrate the Entire Screen Builder Server.
- Managing the Entire Screen Builder Server How to start and stop the Entire Screen Builder Server, define server settings, send messages to all connected clients, activate tracing and add new license files.
- GUI Version This module is the graphical user interface for the Entire Screen Builder Server. It is responsible for getting the character screens and for creating a specific graphical user interface protocol to be sent to a GUI viewer using the transformation rules defined by the developer.
- Terminal Version This module is the character user interface for the Entire Screen Builder Server. It is responsible for getting the character screens to be sent to the Terminal Viewer.
- XML Version This is the zero client footprint module for the Entire Screen Builder Server. It is responsible for converting the character screens to XML which can be displayed in a browser following transformation into HTML using a stylesheet.
- Tunneling Server This server is used for the communication between the Entire Screen Builder Server and the Web servers.
- Image Server This is the internal image server that can be used by the GUI viewers to get the images.
- Host Sessions How to define and administrate host sessions.
- Color Schemes How to define color schemes for the different host sessions.
- Key Schemes How to define key schemes for the different host sessions (that is, how to assign host keys to your PC keyboard).
- BS2000 P-Key Schemes How to define P-key schemes for sessions of type BS2000.
- User and Group Concept General information on user and group profiles. How to control session and script access, and how to change session parameters.
- Users How to define user names, passwords and other user-specific properties in a user profile.
- Groups How to assign a user to one or more user groups. The user inherits all authorizations and session profiles defined for the group(s).

The information defined with the System Management Hub is written to different files:

- **Server configuration**

Under Windows, this information is stored in the registry. In the UNIX environment, it is stored in the file *ewvreg.reg*.

- **Host session configuration**

This information (including key schemes and color schemes) is stored in the file *nswconfig.xml* which is stored in Entire Screen Builder's *data* folder.

- **User and group profiles**

This information is stored in the *profiles* folder which is also stored in Entire Screen Builder's *data* folder.

You must not modify the above information manually using an external editor.

Note:

By default, two user interfaces are installed for the System Management Hub: a Web interface and a batch interface. The Entire Screen Builder Server only supports the Web interface which is based on HTML and JavaScript. See the System Management Hub documentation for further information.

Getting Started

This chapter covers the following topics:

- Starting the System Management Hub
 - About the Graphical User Interface
 - Accessing the Administration Component for the Entire Screen Builder Server
 - Refreshing the Display
-

Starting the System Management Hub

The System Management Hub runs in a browser. For supported browsers, see the System Management Hub documentation.

You invoke the System Management Hub with the following URL:

<http://machine-name:system-management-hub-port-number/smh/login.htm>

Under Windows, you can simply access the System Management Hub as described below. The correct URL is automatically provided in the shortcut.

▶ **To access the System Management Hub**

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

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



Note:

The System Management Hub provides different skins with different colors. To define another skin, choose **Settings** in the above HTML page.

2. Enter your user name and password.

This is the user name and password for the machine on which the Management Independent Layer of the System Management Hub is running.

When a domain is required with the user name, enter it as follows:

domain-name\user-name

3. Choose the **Login** button.

The main HTML page for the System Management Hub is now shown.

About the Graphical User Interface



The graphical user interface for the System Management Hub is divided into several frames:

- **Navigation/tree-view frame (top left)**

Contains all hosts and products known to the System Management Hub. You can expand or collapse the tree structure by clicking the plus or minus sign in front of an object. Alternatively, you can single-click on an object to select it - in this case, details about this object are displayed in the detail-view frame, but the object is not expanded. If you double-click on an expandable object, the object will be expanded and details about the object are displayed in the detail-view frame.

When using the keyboard, you can expand or collapse the tree structure by selecting an object and pressing RIGHT-ARROW or LEFT-ARROW.

- **Command frame (bottom left)**

The content of the command frame depends on the object you select from the tree-view frame and on the current status of that object. Only those commands that are available for the selected object are displayed. If you select another object, the content of the command frame will be refreshed accordingly.

- **Display/detail-view frame (right)**

Used to display details of selected objects or to accept user input.

To proceed from one frame to another using the keyboard, use the TAB key.

To change the size of either of the frames, move the mouse pointer over the border separating the frames until the pointer changes, showing two arrows pointing in opposite directions. Then drag the border using the mouse until the frames have the desired size.

Accessing the Administration Component for the Entire Screen Builder Server

The administration component for the Entire Screen Builder Server is shown in the tree-view frame.

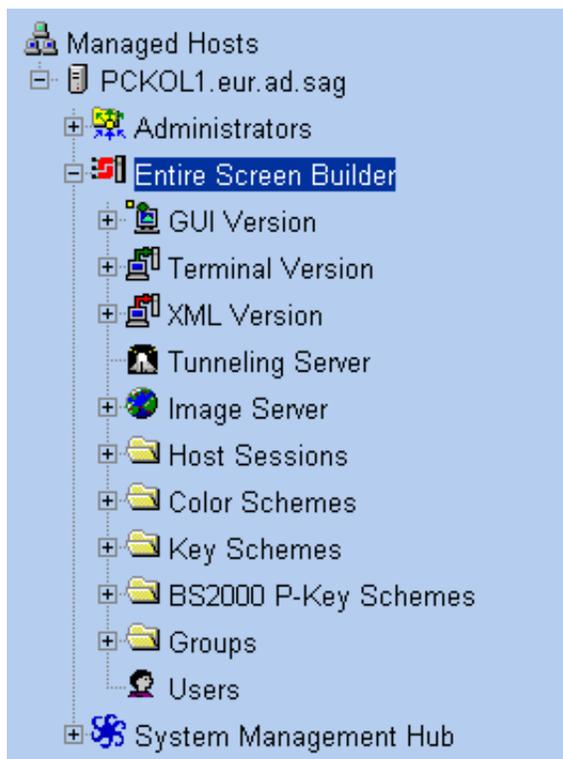
▶ To access the administration component

1. Expand the object that shows the host name.

The object "Entire Screen Builder" is now shown in the tree. This is the administration component for the Entire Screen Builder Server. See *Managing the Entire Screen Builder Server* for further information.

2. Expand the object "Entire Screen Builder".

This displays additional objects which can further be expanded.



For detailed information on these objects, see the corresponding sections later in this documentation.

When the Entire Screen Builder Server has been stopped, the icons for GUI Version, Terminal Version, XML Version, Tunneling Server and Image Server appear black and gray.

Caution:

If you close the browser window in which the System Management Hub is running or switch to another URL, you will also terminate the Entire Screen Builder administration component.

Refreshing the Display

The **Refresh** button is always available in the command frame. It is used to refresh the contents of the tree-view frame and the detail-view frame. Thus, you can check whether the status or information has changed.

Caution:

If you use the browser's **Refresh** command, this will terminate the Entire Screen Builder administration component.

 **To refresh the display**

- Choose the **Refresh** button in the command frame.

Administrators

The installation authorizes the user who is currently logged on to use the System Management Hub and the Entire Screen Builder Administration.

You can authorize other users to administrate the Entire Screen Builder Server. Note that these users must also be authorized for the System Management Hub.

This chapter covers the following topics:

- Overview of Defined Administrators
 - Adding an Administrator
 - Deleting an Administrator
-

Overview of Defined Administrators

When you select the "Administrators" object in the tree-view frame, a list of all products is shown in the detail-view frame.



Expand the object "Entire Screen Builder" (directly below the "Administrators" object). The administrators defined for Entire Screen Builder are now shown. When you select a specific administrator, the detail-view frame shows the products for which this administrator has been registered.

The screenshot is split into two parts. On the left is the tree-view frame, where 'Entire Screen Builder' under 'Administrators' is expanded. It shows two sub-items: 'admin1' (highlighted) and 'mydomain/myname'. Below these are 'System Management Hub', 'admin1', and 'mydomain/myname'. At the bottom are 'Entire Screen Builder', 'System Management Hub', and 'sunex1'. On the right is the 'Detail Administrator' frame. It has a title bar 'Detail Administrator'. Below it is 'Administrator admin1' with a small icon. Underneath is the text 'Registered for the following product(s):'. Below that is a table with two columns: 'Icon' and 'Product'.

Icon	Product
	Entire Screen Builder
	System Management Hub

Adding an Administrator

You do not have to stop the Entire Screen Builder Server. You can also add administrators when the server is running.

▶ To add an administrator

1. In the tree-view frame, select the "Administrators" object (i.e. the name next to the plus sign).
2. In the command frame, choose the **Add Administrator** button.

The Add Administrator dialog appears.

Icon	Product	Administrator
	Entire Screen Builder	<input type="checkbox"/>
	System Management Hub	<input type="checkbox"/>

3. Specify the name of the user that you want to add. The user must be one of the following:
 - A known user on the local node.
 - A known user in a domain. In this case, you have to specify the domain name with the user ID:

domain-name/user-name

4. Select the **Administrator** check boxes for Entire Screen Builder and for the System Management Hub.

In order to administrate Entire Screen Builder, a user must also be authorized for the System Management Hub.

5. Choose the **OK** button.

A message is now shown in the detail-view frame, indicating that the defined user has been processed to be added for the selected products.

6. Choose the **Close** button.

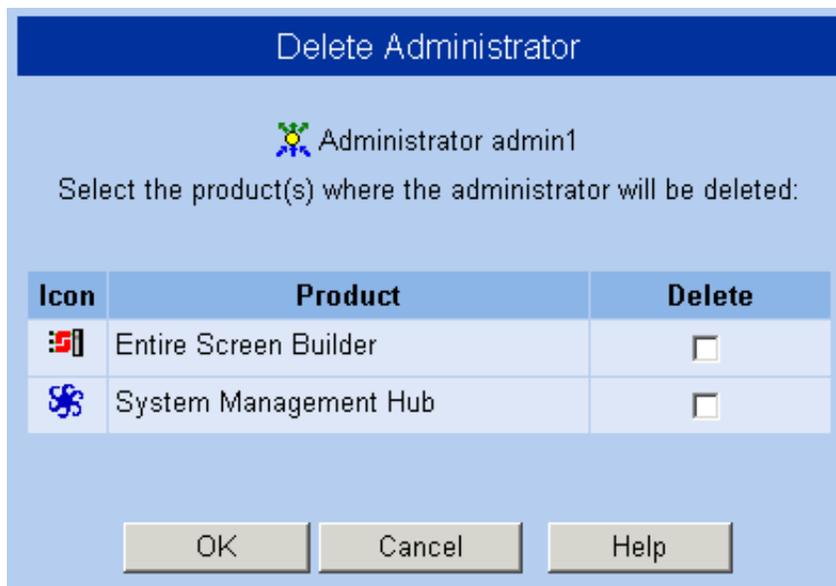
Deleting an Administrator

You do not have to stop the Entire Screen Builder Server. You can also delete administrators when the server is running.

▶ To delete an administrator

1. In the tree-view frame, expand the "Administrators" object.
2. In the tree-view frame, expand the "Entire Screen Builder" object.
3. Select the administrator that is to be deleted.
4. In the command frame, choose the **Delete Administrator** button.

The Delete Administrator dialog appears.



5. Select the **Delete** check box(es) for the product(s) for which the administrator is to be deleted.
6. Choose the **OK** button to confirm the deletion.

A message is now shown in the detail-view frame, indicating that the user has been deleted as an administrator for the selected products.

7. Choose the **Close** button.

Managing the Entire Screen Builder Server

This chapter covers the following topics:

- Starting and Stopping the Entire Screen Builder Server
 - Server Settings
 - Sending Messages
 - Traces Setup
 - License Files
-

Starting and Stopping the Entire Screen Builder Server

The properties of the Entire Screen Builder Server can only be modified when the Entire Screen Builder Server has been stopped. Edit controls are then available. Not all properties are shown when the Entire Screen Builder Server has been started.

When you stop the Entire Screen Builder Server, any running connections are terminated. As long as the Entire Screen Builder Server is stopped, it is not possible for the viewers to connect to a host session. You can send a message to all connected users to inform them that the Entire Screen Builder Server will be stopped (see *Sending Messages* below).

To stop the server and modify the properties

1. In the tree-view frame, select the "Entire Screen Builder" object (i.e. the name next to the plus sign).
2. In the command frame, choose the **Stop** button.

A message indicating that the server has been stopped is shown in the detail-view frame. This may take a while.

3. In the detail-view frame, choose the **OK** button.

The server settings can now be edited in the detail-view frame.

4. Modify the desired properties (see *Server Settings* below).
5. Choose the **Update Configuration** button.

 **To start the server**

1. In the tree-view frame, select the "Entire Screen Builder" object (i.e. the name next to the plus sign).
2. In the command frame, choose the **Start** button.

A message indicating that the server has been started is shown in the detail-view frame. This may take a while.

3. In the detail-view frame, choose the **OK** button.

When the server has been started, the server settings cannot be edited in the detail-view frame.

Server Settings

The server settings can only be modified when the Entire Screen Builder Server has been stopped.

- General Properties
- System Defaults for Terminal Viewer
- Modules
- Commands

General Properties

General Property	Value
 Service status:	Stopped
 Configuration file path:	C:\Program Files\Software AG\Entire Screen Builder 5\Data\inswcor <input data-bbox="630 390 808 422" type="button" value="Browse..."/>
 Administration port number:	<input data-bbox="630 447 751 489" type="text" value="22366"/>
 Monitoring port number:	<input data-bbox="630 510 751 552" type="text" value="22345"/>
 UNIX data transfer port number:	<input data-bbox="630 573 751 615" type="text" value="22341"/>
 Number of threads per processor:	<input data-bbox="630 636 719 678" type="text" value="3"/>
 Translation tables folder:	C:\Program Files\Software AG\Entire Screen Builder 5\Tables <input data-bbox="630 768 808 800" type="button" value="Browse..."/>
 Script files folder:	C:\Program Files\Software AG\Entire Screen Builder 5\Scripts <input data-bbox="630 877 808 909" type="button" value="Browse..."/>
 Maximum number of concurrent scripts:	<input data-bbox="630 936 735 978" type="text" value="16"/>
 Allow scripts for all users:	<input checked="" type="checkbox"/> Active
 Allow all sessions for all users:	<input checked="" type="checkbox"/> Active
 PC speaker beep on errors and warnings:	<input type="checkbox"/> Active
 Min. working set size [in MB]:	<input data-bbox="630 1203 768 1245" type="text" value="1"/>
 Max. working set size [in MB]:	<input data-bbox="630 1266 768 1308" type="text" value="16"/>
 Profiles folder:	C:\Program Files\Software AG\Entire Screen Builder 5\Data\Profiles <input data-bbox="630 1381 808 1413" type="button" value="Browse..."/>
 Temporary files path:	C:\Program Files\Software AG\Entire Screen Builder 5\Temp <input data-bbox="630 1493 808 1524" type="button" value="Browse..."/>
 XML/HTML character encoding:	<input data-bbox="630 1545 1052 1587" type="text" value="Windows-1252"/>

Service status

Shows the current status of the Entire Screen Builder Server (i.e. stopped or running). This property cannot be modified.

Configuration file path

The full path to the configuration file *nswconfig.xml*.

Administration port number

The number of the port where the Administration module listens.

Monitoring port number

The port number for Entire Screen Builder's Server Management tool. This is the snap-in for the Microsoft Management Console (MMC). See also: *Defining the Entire Screen Builder Server* in the *Server Management* documentation.

UNIX data transfer port number

The number of the port where the UNIX data transfer module listens. This module is used for the data transfer between Natural and Entire Screen Builder.

Number of threads per processor

The Entire Screen Builder Server will create the specified number of worker threads to handle the communications to hosts and clients and to generate screens.

The default value is 3, but this value should be increased when the responsiveness of the server drops (i.e. the time for a new screen to be processed for a client increases but the server processor time as seen in the Windows NT Task Manager remains low).

Translation tables folder

The full path to the folder in which the translation tables are stored.

Script files folder

The full path to the folder in which the script files are stored. See the *Script Files* documentation for further information.

Maximum number of concurrent scripts

Each JavaScript requires its own thread to run in, so this value defines the number of scripts that can be started by different clients. Once the specified number of concurrent scripts has been reached, further requests to run scripts will be queued until another script has completed.

This number should never be set to more than about 100. It is ideally kept to below 20 (the default value is 16). If you have many scripts that run frequently and request data from clients, you should increase this to the maximum value.

Allow scripts for all users

When this check box is selected, all scripts are automatically allowed for all users. Activate this property if you do not use the user profile feature. Note that this overwrites the settings for scripts in the user profiles.

Allow all sessions for all users

When this check box is selected, all sessions are automatically allowed for all users. Activate this property if you do not use the group profile feature. Note that this overwrites the settings for sessions in the group profiles.

PC speaker beep on errors and warnings

When this check box is selected, the PC speaker beeps when an error occurs or when a warning is issued. This is a default setting which does *not* overwrite the settings in the user profile.

Min./Max. working set size

These properties are not supported on UNIX. On UNIX, these text boxes are therefore set to read-only.

The minimum and maximum working set size values are used to reserve a fixed section of memory for the Entire Screen Builder Server. This reduces the number of page faults generated by the operating system and enhances the performance of the server. If the maximum memory requirement of the server is calculated using the values below, you can use these values as the minimum and maximum entries.

The number of concurrent connections per server depends on the amount of physical memory on the system. Approximately 75K of RAM is required per concurrent user. You should add approximately 4MB for server overhead and approximately 10MB of additional spare memory for system overheads.

The values set here are used in a call to the Windows function `SetProcessWorkingSetSize`. For a more exact description of this function, see the following Microsoft website:
<http://msdn.microsoft.com/library/default.asp?url=/library/en-us/dllproc/base/setprocessworkingsetsize.asp>.

Profiles folder

The full path to the folder in which the user and group profiles are stored.

Temporary files path

The full path to the folder in which the temporary Entire Screen Builder files are stored.

XML/HTML character encoding

The character encoding to be used for the XML Version and for data transfer with HTML and XML. Entire Screen Builder uses "windows-1252" as the default encoding.

If you want to change the encoding for a specific host session, see *General Properties* in the section *Host Sessions*.

Important:

The PC codepage used for the translation tables determines the character encoding for XML and HTML files and for the XML Version.

System Defaults for Terminal Viewer

These options apply to anonymous users.

System Defaults For Terminal Viewer	
 Input history (applies to anonymous users):	<input checked="" type="checkbox"/> Active
 Language (applies to anonymous users):	English 

Input history

When this check box is selected, the Terminal Viewer stores up to 50 user entries. These entries are provided for selection in the input history window of the Terminal Viewer. It is then possible to execute a previously entered command once more or insert previously entered text in a field. See *Input History* in the *Terminal Viewer* documentation.

If you want to enable the input history for a defined user, see *Users*.

Language

The language in which the user interface of the Terminal Viewer is to be displayed. The user interface is not shown in the selected language until you quit the Terminal Viewer and start it once more.

If you want to change the language for a defined user, see *Users*.

Modules

Modules (mark checkbox for autoload)	
	<input checked="" type="checkbox"/> GUI Version
	<input checked="" type="checkbox"/> Terminal Version
	<input checked="" type="checkbox"/> XML Version

When a module has been loaded and is working, its icon in the tree-view frame appears with color. Otherwise, the icon is black and gray.

Mark the check boxes for the modules that are to be loaded automatically when the Entire Screen Builder Server starts up.

GUI Version

For further information on this module, see *GUI Version* later in this documentation.

Terminal Version

For further information on this module, see *Terminal Version* later in this documentation.

XML Version

For further information on this module, see *XML Version* later in this documentation.

Commands

The available command buttons depend on the service status (i.e. whether the Entire Screen Builder Server has been stopped or is running). Command buttons that are currently not available are gray.

Start	Start the Entire Screen Builder Server. A message indicating the status is then shown in the detail-view frame.
Stop	Stop the Entire Screen Builder Server. A message indicating the status is then shown in the detail-view frame.
Send Message	Send a message to all currently connected clients. See below.
Traces Setup	Configure and activate tracing. See below.
License Files	Add new license files. See below.

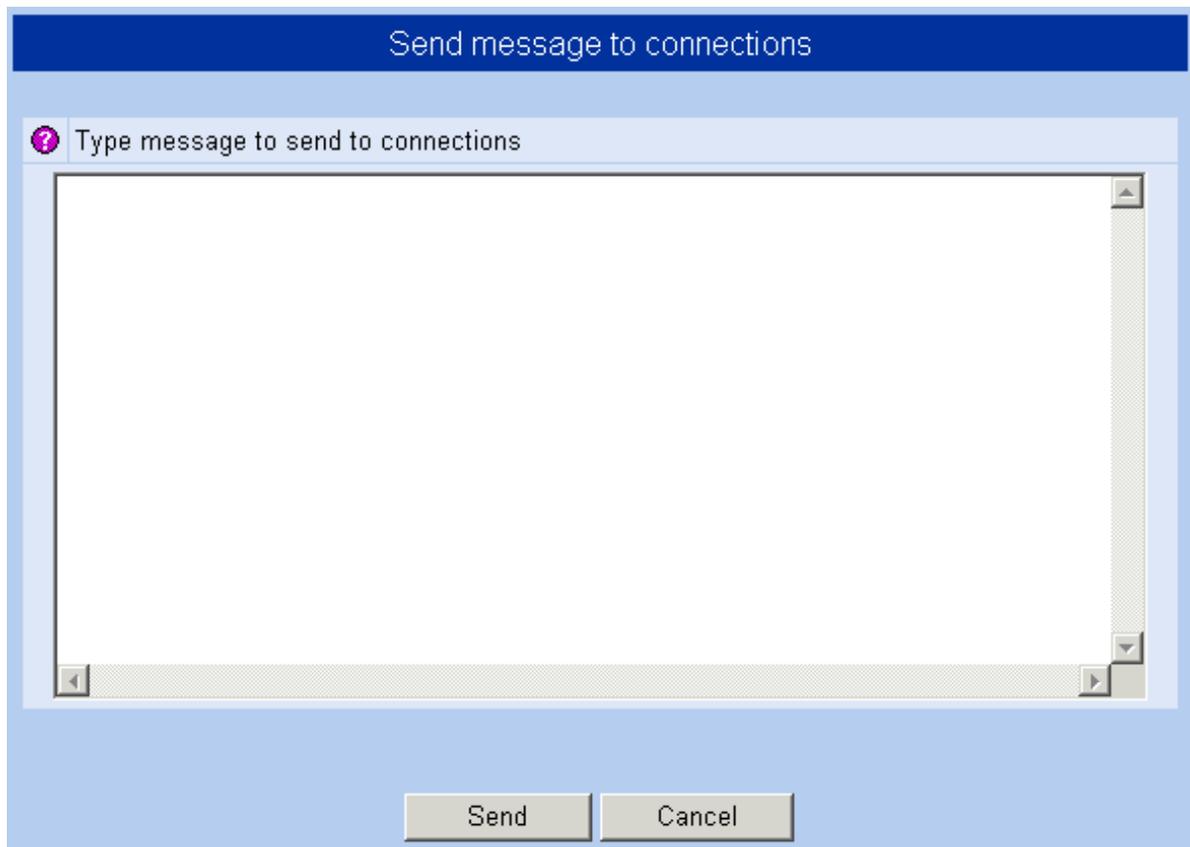
Sending Messages

When the server is running, you can send messages to all clients that are currently connected.

▶ To send messages

1. In the tree-view frame, select the "Entire Screen Builder" object (i.e. the name next to the plus sign).
2. Choose the **Send Message** button in the command frame.

The following dialog appears:



3. Enter the desired message.

For example: "Server will be rebooted in 10 minutes".

4. Choose the **Send** button.

Traces Setup

This function is intended for problem analysis. It should only be used under supervision of your technical support. Tracing should be deactivated at all other times as it impacts the performance of the server.

There are two types of traces which can be activated and deactivated independently of each other: server traces and communication traces.

The traces folder can only be changed when the Entire Screen Builder Server has been stopped. However, to activate or deactivate tracing or to configure the communication traces or server traces, the Entire Screen Builder Server must have been started.

▶ To change the traces folder

1. Make sure that the Entire Screen Builder Server has been stopped.
2. In the tree-view frame, select the "Entire Screen Builder" object (i.e. the name next to the plus sign).
3. Choose the **Traces Setup** button in the command frame.

The **Traces Setup** dialog appears.

Server Traces	
Property	Value
Status	Disabled
Level	None
Type	None
Selection	None

Communication Traces	
Property	Value
Monitoring Status	Off

4. Specify the full path to the traces folder.

Or:

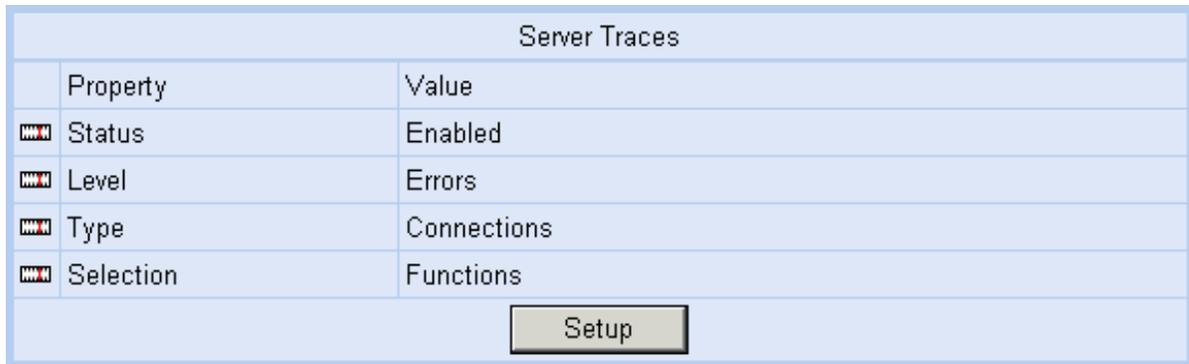
Choose the **Browse** button to select the folder from another dialog.

5. Choose the **Update Data** button.

▶ **To activate server traces**

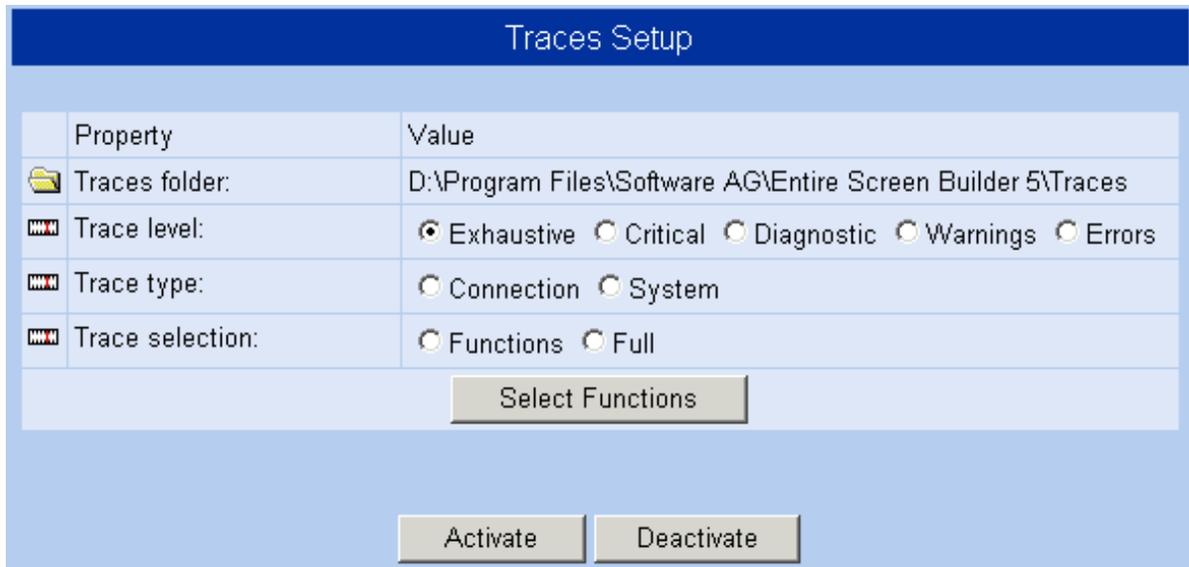
1. Make sure that the Entire Screen Builder Server has been started.
2. In the tree-view frame, select the "Entire Screen Builder" object (i.e. the name next to the plus sign).
3. Choose the **Traces Setup** button in the command frame.

The Traces Setup dialog appears. The upper part of the dialog applies to server traces.



4. Choose the **Setup** button.

The following dialog appears:



5. Modify the properties as advised by your technical support.
6. Choose the **Activate** button.

▶ **To activate communication traces**

1. Invoke the Traces Setup dialog as described above for the server traces.

The lower part of the dialog applies to communication traces.

Communication Traces	
Property	Value
 Monitoring Status	Off
<input type="button" value="Activate"/> <input type="button" value="Deactivate"/>	

2. Choose the **Activate** button.

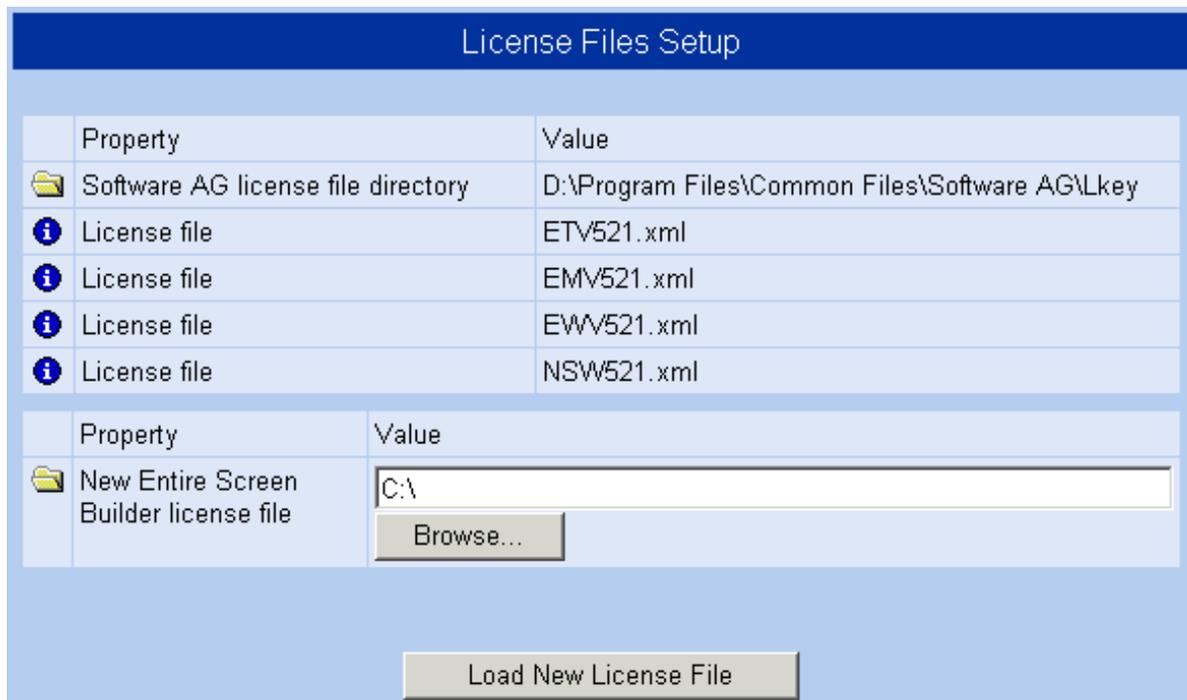
License Files

When the server is running, you can add new license files to your Software AG license file directory.

▶ To add a new license file

1. In the tree-view frame, select the "Entire Screen Builder" object (i.e. the name next to the plus sign).
2. Choose the **License Files** button in the command frame.

The following dialog appears:



3. Specify the full path to the location containing the new license file as well as the name of the file.

Or:

Choose the **Browse** button to select the license file from another dialog.

4. Choose the **Load New License File** button.

The specified license file is now copied to the Software AG license file directory which is also indicated in the above dialog. At the same time, the new license file is loaded to the Entire Screen Builder Server and is used.

Note:

If you load the license file for the Entire Screen Builder SDK (*NSWnnn.xml*) to an existing production environment, the SDK has higher priority and the Entire Screen Builder Server then runs in development mode.

GUI Version

This module is the graphical user interface for the Entire Screen Builder Server. It is responsible for getting the character screens and for creating a specific graphical user interface protocol to be sent to an Entire Screen Builder GUI viewer (Web Viewer or Windows Viewer) using the transformation rules defined by the developer.

The following topics are covered below:

- GUI Version Settings
- Log Connections

Note:

When the Entire Screen Builder Server has been stopped, only the settings can be displayed. The object "Log Connections" is not available.

GUI Version Settings

In the tree-view frame, select the "GUI Version" object (i.e. the name next to the plus sign).

When the Entire Screen Builder Server has been stopped, the following dialog appears:

Property	Value
Rules repository:	C:\Program Files\Software AG\Entire Screen Builder 5\Repository Browse...
Timeout:	0

Update Configuration

Listen address

DEFAULT (port 22367)

Add Edit Delete

Properties

The following properties can only be modified when the Entire Screen Builder Server has been stopped.

Rules repository

The directory containing the rules used for the Entire Screen Builder Server.

When specifying a network drive, you cannot use the **Browse** button. You have to enter the network drive and path information in the **Rules repository** text box.

If the rules repository is to be accessed using a network drive, an account must be associated with the Entire Screen Builder Service. The account must have access rights to the network drive on which the repository is stored. Make sure that the password of this account never expires. Otherwise, the repository cannot be accessed.

To associate the account with the Entire Screen Builder Service go to Services in the Control Panel, select **Software AG Entire Screen Builder Service** and display the properties. In the resulting dialog box, specify the account on the Log On page.

Timeout

Timeout in seconds for automatically disconnecting idle connections (0 means infinite). A connection is considered idle when there is no data traffic between the client and host.

Listen address

Since a computer can have several Ethernet cards, Entire Screen Builder provides a mechanism for listening to different IP addresses in the same system.

You can choose the **Add** button to define an additional address.

Property	Value
IP address:	<input type="text"/>
Port number:	<input type="text"/>

OK Cancel

- IP address**
 Specify the IP address to which a GUI Version thread is listening. If you do not specify an IP address, the GUI Version listens to the default IP address configured in the system.
- Port number**
 The number of the port where a GUI Version thread listens.

Commands

The following command buttons are only available when the server is running.

Load	Load the module if it is unloaded. The detail-view frame informs you whether the module has been loaded successfully.
Unload	Unload the module if it is loaded. The detail-view frame informs you whether the module has been unloaded successfully.
Send Message	Send a message to the clients currently connected through this module. See also <i>Sending Messages</i> .

Log Connections

By default, statistics information is deactivated. Statistics can only be activated when the server has been started. See *Starting and Stopping the Entire Screen Builder Server*.

You can activate this type of statistics to create a log entry for each client workstation that connects to the Entire Screen Builder Server. The log entry contains the IP address of the client workstation and the type of session that was used to connect.

Under Windows, the log entry is stored in the Windows Event Viewer. In the UNIX environment, the log entry is stored in the file *ewvserver.txt*.

Select "Log Connections" which is located under the "GUI Version" object.

Log Connections		
	Property	Value
	Monitoring Status	On

Commands

Activate	Activate this type of statistics.
Deactivate	Deactivate this type of statistics.

Terminal Version

This module is the character user interface for the Entire Screen Builder Server. It is responsible for getting the character screens to be sent to the Terminal Viewer.

The following topics are covered below:

- Terminal Version Settings
- Log Connections

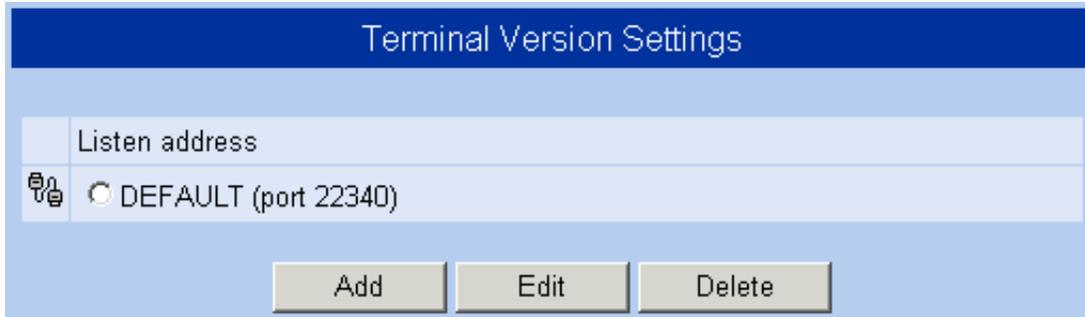
Note:

When the Entire Screen Builder Server has been stopped, only the settings can be displayed. The object "Log Connections" is not available.

Terminal Version Settings

In the tree-view frame, select the "Terminal Version" object (i.e. the name next to the plus sign).

When the Entire Screen Builder Server has been stopped, the following dialog appears:



Properties

Listen address

Since a computer can have several Ethernet cards, Entire Screen Builder provides a mechanism for listening to different IP addresses in the same system.

You can choose the **Add** button to define an additional address.



- IP address**
 Specify the IP address to which a Terminal Version thread is listening. If you do not specify an IP address, the Terminal Version listens to the default IP address configured in the system.
- Port number**
 The number of the port where a Terminal Version thread listens.

Commands

The following command buttons are only available when the server is running.

Load	Load the module if it is unloaded. The detail-view frame informs you whether the module has been loaded successfully.
Unload	Unload the module if it is loaded. The detail-view frame informs you whether the module has been unloaded successfully.
Send Message	Send a message to the clients currently connected through this module. See also <i>Sending Messages</i> .

Log Connections

By default, statistics information is deactivated. Statistics can only be activated when the server has been started. See *Starting and Stopping the Entire Screen Builder Server*.

You can activate this type of statistics to create a log entry for each client workstation that connects to the Entire Screen Builder Server. The log entry contains the IP address of the client workstation and the type of session that was used to connect.

Under Windows, the log entry is stored in the Windows Event Viewer. In the UNIX environment, the log entry is stored in the file *ewvserver.txt*.

Select "Log Connections" which is located under the "Terminal Version" object.

Log Connections		
	Property	Value
	Monitoring Status	On

Commands

Activate	Activate this type of statistics.
Deactivate	Deactivate this type of statistics.

XML Version

This is the zero client footprint module for the Entire Screen Builder Server. It is responsible for converting the character screens to XML which can be displayed in a browser following transformation into HTML using a stylesheet.

The following topics are covered below:

- XML Version Settings
- Log Connections

Note:

When the Entire Screen Builder Server has been stopped, only the settings can be displayed. The object "Log Connections" is not available.

XML Version Settings

In the tree-view frame, select the "XML Version" object (i.e. the name next to the plus sign).

When the Entire Screen Builder Server has been stopped, the following dialog appears:

XML Version Settings	
Property	Value
 Rules repository:	C:\Program Files\Software AG\Entire Screen Builder 5\XMLRepositc <input type="button" value="Browse..."/>
 Timeout:	600
 Skip application detection:	<input checked="" type="checkbox"/> Active
Delete Characters Property	Value
 Activate delete characters:	<input type="checkbox"/> Active
 Characters to be deleted:	<input type="text"/>
<input type="button" value="Update Configuration"/>	
Listen address	
 <input type="radio"/> DEFAULT (port 22380)	
<input type="button" value="Add"/> <input type="button" value="Edit"/> <input type="button" value="Delete"/>	

Properties

The following properties can only be modified when the Entire Screen Builder Server has been stopped.

Rules repository

The directory containing the XSL style sheets.

When specifying a network drive, you cannot use the **Browse** button. You have to enter the network drive and path information in the **Rules repository** text box.

If the rules repository is to be accessed using a network drive, an account must be associated with the Entire Screen Builder Service. The account must have access rights to the network drive on which the repository is stored. Make sure that the password of this account never expires. Otherwise, the repository cannot be accessed.

To associate the account with the Entire Screen Builder Service go to Services in the Control Panel, select **Software AG Entire Screen Builder Service** and display the properties. In the resulting dialog box, specify the account on the Log On page.

Timeout

Timeout in seconds for automatically disconnecting idle connections (0 means infinite). A connection is considered idle when there is no data traffic between the client and host.

Skip application detection

If you are not using the Preview SDK to identify screens or to define the characters to be deleted in the XML Version, it is recommended that you select this check box to turn off application detection. This will enhance server performance.

Activate delete characters

Select this check box if you want to define the characters that are not to be displayed by the viewer.

In mainframe, UNIX and OpenVMS applications, specific characters are used to differentiate between unprotected and protected fields. Under Windows these characters are not required. When you specify the characters that are used in your legacy application in the text box below, these characters are no longer shown.

As the browser edit controls do not allow an "Overwrite" mode, we recommend that you define the delete character(s).

A delete character can also be defined with the Control Attributes rule of the Preview SDK.

Characters to be deleted

Specify the characters to be deleted in this text box.

If one, and only one, of the characters defined for this rule is contained in an output field, this output field will not be shown. If the output field contains other characters in addition to this character (either defined or undefined), this rule will not be applied. This rule can be used, for example, to delete fields containing the underscore (_) character. Blanks are ignored.

Listen address

Since a computer can have several Ethernet cards, Entire Screen Builder provides a mechanism for listening to different IP addresses in the same system.

You can choose the **Add** button to define an additional address.

Property	Value
IP IP address:	<input type="text"/>
 Port number:	<input type="text"/>

- IP address**
 Specify the IP address to which an XML Version thread is listening. If you do not specify an IP address, the XML Version listens to the default IP address configured in the system.
- Port number**
 The number of the port where an XML Version thread listens.

Commands

The following command buttons are only available when the server is running.

Load	Load the module if it is unloaded. The detail-view frame informs you whether the module has been loaded successfully.
Unload	Unload the module if it is loaded. The detail-view frame informs you whether the module has been unloaded successfully.
Send Message	Send a message to the clients currently connected through this module. See also <i>Sending Messages</i> .

Log Connections

By default, statistics information is deactivated. Statistics can only be activated when the server has been started. See *Starting and Stopping the Entire Screen Builder Server*.

You can activate this type of statistics to create a log entry for each client workstation that connects to the Entire Screen Builder Server. The log entry contains the IP address of the client workstation and the type of session that was used to connect.

Under Windows, the log entry is stored in the Windows Event Viewer. In the UNIX environment, the log entry is stored in the file *ewvserver.txt*.

Select "Log Connections" which is located under the "XML Version" object.

Log Connections		
	Property	Value
	Monitoring Status	On

Commands

Activate	Activate this type of statistics.
Deactivate	Deactivate this type of statistics.

Tunneling Server

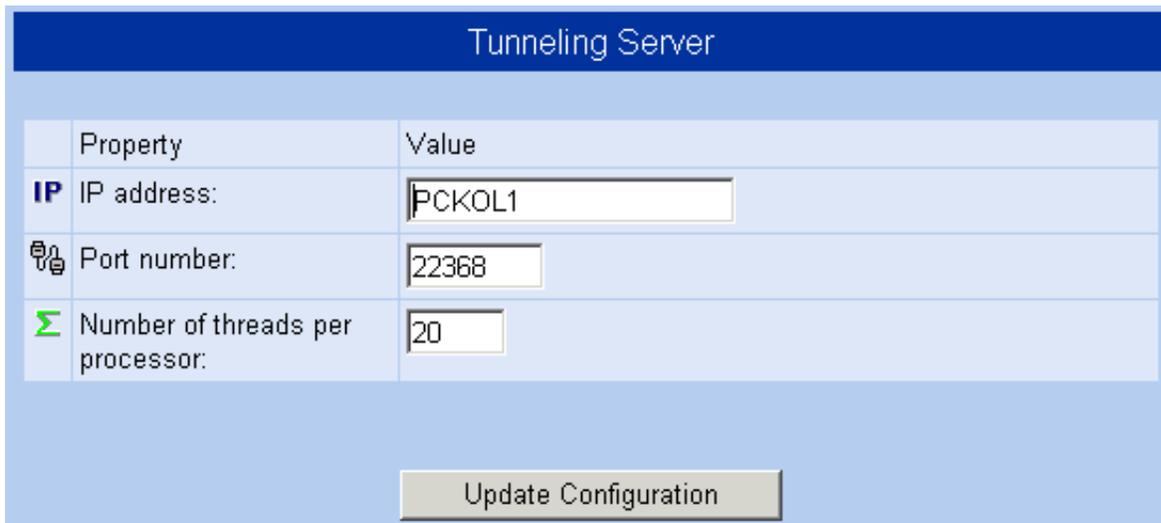
The tunneling server, which is part of the Entire Screen Builder Server, is used when the tunneling mechanism has been enabled for the Entire Screen Builder viewers (Web Viewer, Windows Viewer and Terminal Viewer). See the *Overview of Client Control Properties* in the *User Exits* documentation.

The tunneling server is used for the communication between the Entire Screen Builder Server and the Web servers (such as Apache or Microsoft Internet Information Server).

Tunneling Server Settings

To display the properties, select the "Tunneling Server" object (i.e. the name next to the plus sign) in the tree-view frame.

When the Entire Screen Builder Server has been stopped, the following dialog appears:



Property	Value
IP address:	PCKOL1
Port number:	22368
Number of threads per processor:	20

Update Configuration

Properties

The following properties can only be modified when the Entire Screen Builder Server has been stopped.

IP address

The IP address or host name of the machine on which the Entire Screen Builder Server is running.

Port number

The number of the port where the tunneling server listens.

Number of threads per processor

The Entire Screen Builder Server will create the specified number of worker threads to handle the tunneling requests from the Web servers.

Image Server

The image server, which is part of the Entire Screen Builder Server, is an internal server that can be used by the Entire Screen Builder GUI viewers (Web Viewer and Windows Viewer) to get the images. This internal image server has limited functionality. It only supports the GET request. You can also use any other Web server (HTTP server) for this purpose.

The image server that is to be used is defined in the client control properties `HttpServer` and `HttpPort`. See the *Overview of Client Control Properties* in the *User Exits* documentation.

The information in this section only applies to the internal image server. It does not apply to an external Web server.

Detailed descriptions of the settings and objects under "Image Server" are provided below:

- Image Server Settings
- Alias List

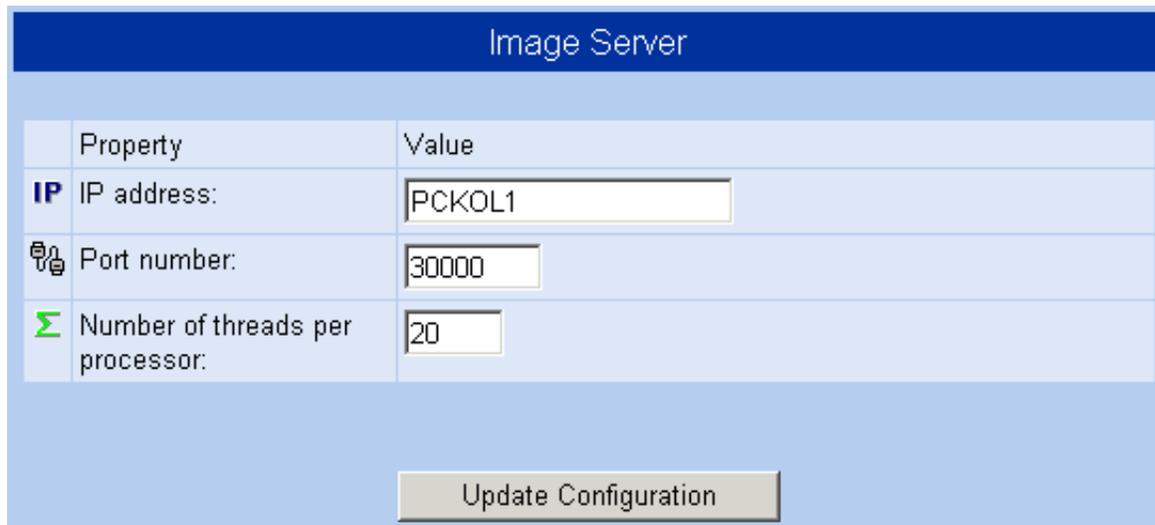
Note:

When the Entire Screen Builder Server has been stopped, only the settings of the image server can be displayed. All other objects are not available.

Image Server Settings

To display the properties, select the "Image Server" object (i.e. the name next to the plus sign) in the tree-view frame.

When the Entire Screen Builder Server has been stopped, the following dialog appears:



Property	Value
IP IP address:	PCKOL1
 Port number:	30000
 Number of threads per processor:	20

Update Configuration

Properties

The following properties can only be modified when the Entire Screen Builder Server has been stopped.

IP address

The IP address or host name of the machine on which the Entire Screen Builder Server is running.

Port number

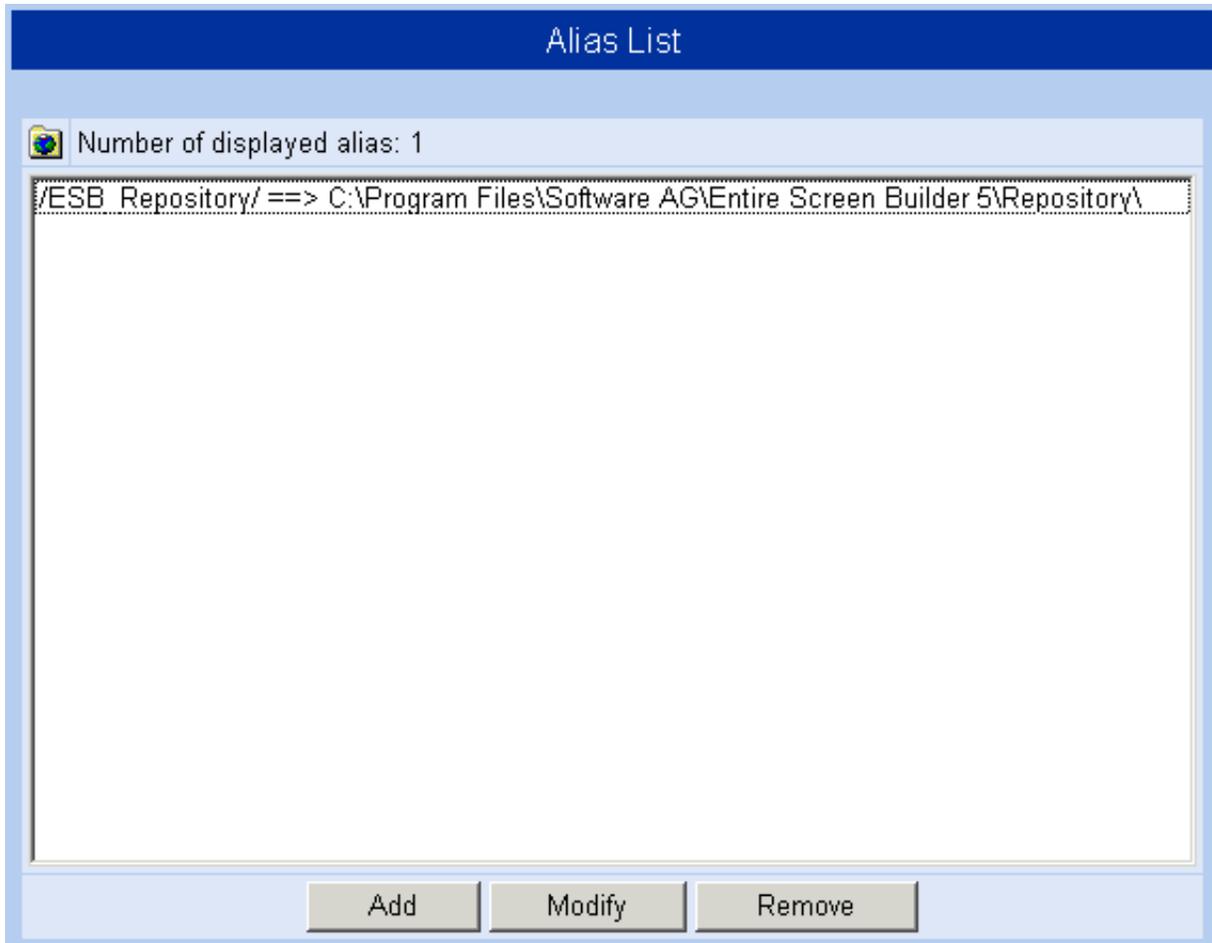
The number of the port where the internal image server listens.

Number of threads per processor

The Entire Screen Builder Server will create the specified number of worker threads to handle the image requests from the GUI viewers.

Alias List

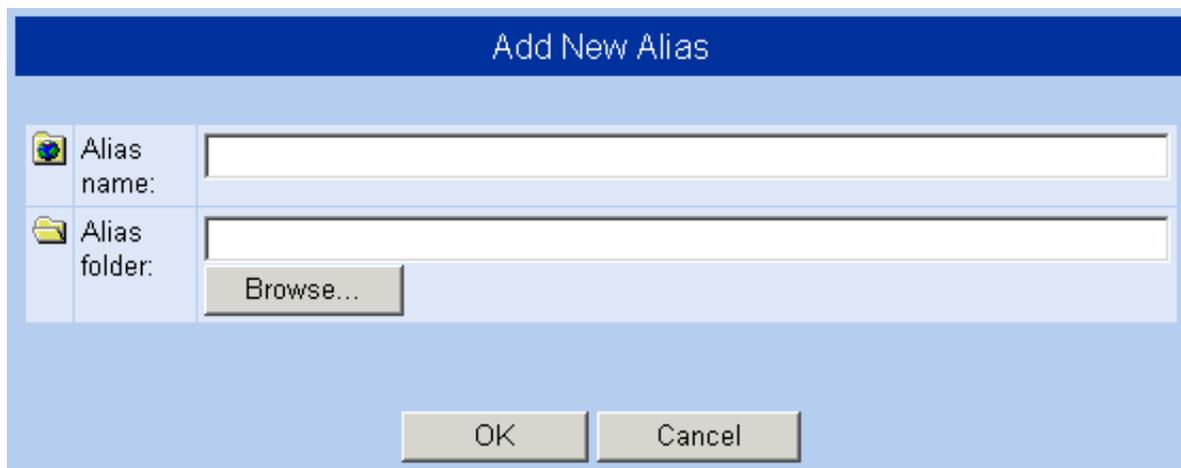
This list contains all aliases defined in the internal image server. An alias points to a folder containing the images for the transformation rules that have been defined with the SDK. Select "Alias List" which is located under the "Image Server" object.



▶ **To add an alias**

1. Choose 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:". The "Alias folder:" field has a "Browse..." button next to it. At the bottom of the dialog are "OK" and "Cancel" buttons.

2. Specify an alias name.
3. Specify the path to the folder containing the images.
4. Choose the **OK** button.

▶ **To modify an alias**

1. Select the alias in the alias list.
2. Choose the **Modify** button.
3. Modify the alias name and/or the alias folder.
4. Choose the **Update** button.

▶ **To remove an alias**

1. Select the alias in the alias list.
2. Choose the **Remove** button.

Host Sessions

This object is used to define and administrate host sessions.

You can define all settings for a session. These include the type of host session (e.g. Telnet TN3270) and many other properties that define the behavior of the session.

Note:

The standard 24x80 terminal screen model (model 2) is supported for all types of viewers. For the GUI viewers, no other terminal screen models are supported at this time. The Terminal Viewer, however, also supports the 3270 terminal models 3, 4 and 5.

Communication-specific properties are required to successfully open a host session. Therefore, these properties do not have default values. You must set them explicitly to allow the successful establishment of the session. Other session properties are predefined or carry default values.

You can define a number of different sessions. For each session, you can define different properties. Each session must have a different name.

This chapter covers the following topics:

- Overview of Defined Host Sessions
- Adding a Session
- Updating a Session
- General Properties
- Communication Properties for Telnet TN3270
- Communication Properties for Telnet VT
- Communication Properties for BS2000
- Communication Properties for Natural UNIX
- Display Properties for Telnet TN3270
- Display Properties for Telnet VT
- Display Properties for BS2000
- Terminal Properties
- Terminal Viewer Properties
- Data Transfer Properties
- National Properties

See also: *Supported Communication Methods* in the *Installation and Configuration* documentation.

Overview of Defined Host Sessions

When you select the "Host Sessions" object in the tree-view frame, a list of all defined host sessions is shown in the detail-view frame.

Host Sessions			
	Property	Value	Session ID
	Service status	Stopped	
	NatUnix	Natural UNIX	3
	VT	Telnet VT - Terminal Viewer only	4
	ibm	Telnet TN3270	1
	si14	BS2000	2

Commands

When the Entire Screen Builder Server has been stopped, the following command buttons are available in the command frame:

Add Telnet TN3270 Session	Add a Telnet 3270 session.
Add BS2000 Session	Add a BS2000 session.
Add Natural UNIX Session	Add a Natural UNIX or Natural OpenVMS session.
Add Telnet VT Session	Add a Telnet VT session.

In addition to the above command buttons, the following command buttons are available when a host session is selected in the tree-view frame:

Copy Session	Copy the selected session. Specify a name in the resulting dialog and choose the Save New Session button.
Delete Session	Delete the selected session. You will be asked to confirm the deletion.

Adding a Session

It is only possible to add a session when the Entire Screen Builder Server has been stopped.

To add a session

1. Select the "Host Sessions" object in the tree-view frame.
2. Choose the **Add** button for the desired session type (e.g. **Add Telnet TN3270 Session**).
3. In the resulting dialog, specify all required properties (see the property descriptions below).
4. Choose the **Save New Session** button at the bottom of the detail-view frame.

Updating a Session

It is only possible to update a session when the Entire Screen Builder Server has been stopped.

When the server is running, you can only view the properties. In this case, the values ON or OFF are shown instead of the check boxes that appear when updating.

To update a session

1. Select the desired session in the tree-view frame.
2. In the resulting dialog, modify all required properties (see the property descriptions below).
3. Choose the **Update Session** button at the bottom of the detail-view frame.

General Properties

These properties are valid for all session types.

Host Session		
	General Property	Value
	Session type:	Telnet TN3270
ID	Session ID:	
	Session name:	<input type="text"/>
	Color scheme:	<input type="text" value="ibm3279"/>
	Key scheme:	<input type="text" value="sagkeys1"/>
	XML/HTML character encoding:	<input type="text" value="Windows-1252"/>

Session type

Displays the session type. This property cannot be modified.

Session ID

Displays the session ID. This property cannot be modified. A session ID is automatically created for each host session that is added.

This session ID is used by the GUI viewers. It corresponds to the connection number property in the viewers. The viewer sends the session ID to the Entire Screen Builder Server with the connect request. The Entire Screen Builder Server then accesses the configuration file and uses the session ID as a key for getting the session properties (host name or host IP address, port number, etc.). The connection with the host is then established using the corresponding session properties.

Session name

The name that has been defined for this session. It may contain blanks.

Color scheme

Select the desired color scheme from this drop-down list box. See *Color Schemes* for further information.

Not available for Natural UNIX sessions.

Key scheme

Select the appropriate key scheme for the current session type from this drop-down list box. See *Key Schemes* for further information.

XML/HTML character encoding

When creating a new session, the character encoding from the server settings is used as a default.

Note:

This text box is blank for sessions that have been created with an earlier version of Entire Screen Builder. In this case, the default encoding from the server settings is used.

You can specify the encoding that is to be

- written to downloaded XML and HTML files (see below),
- used by the XML parser to interpret XML files correctly during upload,
- used by the XML Version.

Note:

The encoding is not used for the upload of HTML files.

For download, the encoding is written to the file exactly as it has been specified it in this text box (including all possible errors). The application that is used to open the downloaded file (for example, Internet Explorer or Excel) uses the defined character set for displaying the contents of the file. The contents of the file (letters, numbers, special characters) are not converted to another format. The encoding is written to the downloaded file as follows:

- **XML**

The encoding is written to the encoding declaration which is part of the XML text declaration. Example:

```
<?xml version="1.0" encoding="windows-1252"?>
```

For further information on character encodings, see <http://www.w3.org/TR/REC-xml#charencoding>.

- **HTML**

The encoding is written to the META declaration. Example:

```
<meta http-equiv=Content-Type content="text/html; charset=windows-1252">
```

For further information on character encodings, see <http://www.w3.org/TR/html4/charset.html#h-5.2>.

If a character encoding is not specified for a session, the encoding which is currently defined in the server settings is written to the encoding declaration (XML) or META declaration (HTML) during download.

The following table lists some important character sets:

Character Set	Description
ISO-8859-1	ISO Latin 1
UTF-8	Unicode
windows-1250	Windows Central Europe
windows-1251	Windows Cyrillic
windows-1252	Windows Western Europe
windows-1253	Windows Greek
windows-1254	Windows Turkish
windows-1255	Windows Hebrew
windows-1256	Windows Arabic
windows-1257	Windows Baltic
windows-1258	Windows Vietnamese
windows-874	Windows Thai

Note:

The character encoding for data transfer with HTML and XML can be overwritten with the script file method `SetXMLEncoding`.

Communication Properties for Telnet TN3270

See also: *Telnet 3270(E)* in the *Installation and Configuration* documentation.

	Communication Property	Value
	Host name / IP address:	<input type="text"/>
	Port number:	<input type="text" value="23"/>
	Terminal type:	IBM3278-2 (24x80); all types of Viewer 
	End of screen delay:	<input type="text" value="6"/>
	TN3270E protocol:	<input checked="" type="checkbox"/> Active
	AS/400 session:	<input type="checkbox"/> Active
	Device name (if TN3270E protocol active):	<input type="text"/>

Host name / IP address

Specify the address of the host with which you want to communicate. The TCP/IP address format is w.x.y.z, where w, x, y and z are numbers which can have 1 to 3 digits. Example: 23.218.4.90.

Alternatively, if you have a name server installed in your network, you can specify the name of the host to which you want to connect.

Port number

Specify the desired port number. The TCP/IP port number must be the same as the Telnet port number defined on the host.

Terminal type

Select the desired terminal type from this drop-down list box. Available are the standard terminal types 3278 and 3279 and the enhanced terminal types 3278E and 3279E. All standard and enhanced terminal types are available with different screen sizes.

End of screen delay

This option only applies to line mode. It determines the length of time in tenths of a second that the viewer will delay before assuming that the screen is complete (end of screen). Valid input ranges from 0 to 30. This timer is reset each time data is transmitted from the mainframe. It is used to detect a logical end of screen, since no physical data signals the end of screen. If you specify an invalid value, the default value 6 is used.

TN3270E protocol

When this check box is selected, TN3270E is used for communication. A prerequisite is that the Telnet server is capable of processing TN3270E. Otherwise, the TN3270 protocol is used.

AS/400 session

For AS/400 hosts connected via Telnet 3270, PF keys require a leading PA key to be sent to the host in order to be recognized.

When this check box is selected, the session is defined as an AS/400 session. PF keys are then sent in AS/400 style. The PF keys PF1 through PF12 are sent as PA1+PF1 through PA1+PF12, and the PF keys PF13 through PF24 are sent as PA2+PF1 through PA2+PF12.

This applies to the following features:

- the basic rule Function Keys,
- the host communication method `SendKey` of the script language.
- the screen interface method `SendKey` of the user exits.

Note:

Entire Screen Builder provides a key scheme with a special layout for AS400 host systems. See *Key Schemes*.

Device name

Applies only when the **TN3270E protocol** check box has been selected. Specify one of the following:

- **Display LU name**
When a display LU name has been specified, the Telnet server tries to open this specific LU session. If this LU is already used, an error message is shown.
- **Resource name**
When a resource (e.g. an LU pool) has been specified, the Telnet server tries to open any LU from the specified LU pool.

When you specify a name, the Telnet server uses this name to open a session with this LU name or a LU from a pool with this name. If no specific LU with this name and no LU pool with this name is defined on the Telnet server, an error message is shown.

When you leave this text box empty, a "generic" session is created. In this case, any generic display LU of the Telnet server is used. A prerequisite is that at least one generic session has been defined on the Telnet server.

Communication Properties for Telnet VT

This type of communication can only be used with the Terminal Viewer.

See also: *Telnet VT* in the *Installation and Configuration* documentation.

	Communication Property	Value
	Host name / IP address:	<input type="text"/>
	Port number:	<input type="text" value="23"/>
	Terminal type:	<input type="text" value="VT100"/>
	End of screen delay:	<input type="text" value="6"/>
	Return key send option:	<input type="text" value="CR + NULL"/>

Host name / IP address

Specify the address of the host with which you want to communicate. The TCP/IP address format is w.x.y.z, where w, x, y and z are numbers which can have 1 to 3 digits. Example: 23.218.4.90.

Alternatively, if you have a name server installed in your network, you can specify the name of the host to which you want to connect.

Port number

Specify the desired port number. The TCP/IP port number must be the same as the Telnet port number defined on the host.

Terminal type

Select the desired terminal type from this drop-down list box.

End of screen delay

This option determines the length of time in tenths of a second that the viewer will delay before assuming that the screen is complete (end of screen). Valid input ranges from 0 to 30. This timer is reset each time data is transmitted from the mainframe. It is used to detect a logical end of screen, since no physical data signals the end of screen. If you specify an invalid value, the default value 6 is used.

Return key send option

Select the data from this drop-down list box that is to be send to the host when the return key is pressed.

Communication Properties for BS2000

See also: *BS2000 TCP/IP* in the *Installation and Configuration* documentation.

	Communication Property	Value
	Host name:	<input type="text"/>
	Port number:	<input type="text" value="102"/>
	Station name:	<input type="text"/>
	BS2000 application:	<input type="text" value="\$DIALOG"/>
	End of screen delay:	<input type="text" value="6"/>
	BS2000 P-key scheme:	<input type="text" value="--- None ---"/>

Host name

Specify the address of the host with which you want to communicate. The TCP/IP address format is w.x.y.z, where w, x, y and z are numbers which can have 1 to 3 digits. Example: 23.218.4.90.

Alternatively, if you have a name server installed in your network, you can specify the name of the host to which you want to connect.

Port number

Specify the desired port number. The TCP/IP port number must be the same as the port number defined on the host.

Station name

If you do not specify a station name, Entire Screen Builder automatically creates an internal name (e.g. STN1, STN2 etc.) when this session is opened. This is recommended if you want to establish several connections to the BS2000 host using the same host session.

Optional. You can also specify the name of the station which is used to connect to the host. The station name may include the following characters: A to Z, 0 to 9, \$, # and @. The first character must not be a number. The name can be up to 8 characters long. When you specify a station name, only one host session with this name can be active. When this host session is opened once more, the previously opened host session is automatically closed.

When using station names, you should create several host sessions with different station names.

BS2000 application

Specify the name of the application on the BS2000 host to which you want to connect. \$DIALOG is provided as the default name. The name can be up to 8 characters long. The connection will be established using an "open" command with no parameters.

If this field is empty, you are prompted for a BS2000 application name when you open the host session. You can then enter the "open" command followed by the application name (for example "o \$DIALOG"). This is helpful if you want to use different BS2000 applications.

End of screen delay

This option only applies to unformatted screens. It determines the length of time in tenths of a second that the viewer will delay before assuming that the screen is complete (end of screen). Valid input ranges from 0 to 30. This timer is reset each time data is transmitted from the mainframe. It is used to detect a logical end of screen, since no physical data signals the end of screen. If you specify an invalid value, the default value 6 is used.

BS2000 P-key scheme

Select the desired P-key scheme from this drop-down list box. See *BS2000 P-Key Schemes* for further information.

When a P-key scheme has been defined, this P-key scheme is automatically loaded when a connection with the host is established.

Communication Properties for Natural UNIX

These communication properties apply to Natural UNIX and Natural OpenVMS hosts.

See also: *Natural UNIX* in the *Installation and Configuration* documentation.

	Communication Property	Value
	User ID:	<input type="text"/>
	Password:	<input type="text"/>
	Use logon credentials above:	<input type="checkbox"/> Active
	Service name:	<input type="text"/>
	Host name:	<input type="text"/>
	Port number:	<input type="text" value="23"/>
	Compressed:	<input type="checkbox"/> Active

User ID

Specify the user name that is to be used to log on to the system.

Password

Specify the password that is to be used to log on to the system.

Use logon credentials above

When this check box is selected, the above logon ID and password are used to log on to the system. See also: *Using the Viewers with Natural on UNIX and OpenVMS Hosts* in the *Installation and Configuration* documentation.

Service name

The service name must be the same as the service name defined on the host. See *Installing Natural for Entire Screen Builder on UNIX Hosts* in the *Installation and Configuration* documentation for further information.

Host name

Specify the address of the host with which you want to communicate. The TCP/IP address format is w.x.y.z, where w, x, y and z are numbers which can have 1 to 3 digits. Example: 23.218.4.90.

Alternatively, if you have a name server installed in your network, you can specify the name of the host to which you want to connect.

Port number

The TCP/IP port number must be the same as the port number defined on the host. See *Installing Natural for Entire Screen Builder on UNIX Hosts* in the *Installation and Configuration* documentation for further information.

Compressed

When this check box is selected, the compression method is enabled. This improves performance and reduces line load.

Display Properties for Telnet TN3270

Display Property	Value
 Ignore extended attributes:	<input type="checkbox"/> Active

Ignore extended attributes

When this check box is selected, the extended color attribute bytes sent by the host are ignored. This means that the colors are not taken from the data stream; only the field colors are used for display. Other extended attributes are displayed (e.g. blinking oder underlined).

Display Properties for Telnet VT

Display Property	Value
 Line size:	80 characters per line

Line size

Specify whether 80 or 132 characters are to be displayed per line.

Display Properties for BS2000

Display Property	Value
 Display NIL characters:	<input checked="" type="checkbox"/> Active

Display NIL characters

When this check box is selected, the BS2000 NIL characters (dots) are shown instead of blanks.

Terminal Properties

These properties do not apply to the session type Natural UNIX.

	Terminal Property	Value
	Enable nonconversational writes:	<input type="checkbox"/> Active
	Accept empty startup host screens:	<input type="checkbox"/> Active

Enable nonconversational writes

Normally, the viewer waits for a complete screen from the host and the keyboard unlock condition before displaying a new host screen. This avoids screen flickering. Some host applications, however, send screens to the terminal repetitively or without unlocking the keyboard. When this check box is selected, the viewer immediately displays every new screen it receives.

Accept empty startup host screens

Select this check box, if an empty startup screen causes a timeout during the initialization of the session.

Terminal Viewer Properties

These properties only apply to the Terminal Viewer.

Terminal Viewer Property	Value
 Session font:	Courier New
 Cursor size:	Small
 Cursor blink rate:	250
 Text blink rate:	750
 Allow alphanumeric input in numeric fields:	<input type="checkbox"/> Active
 Enable insert mode toggling:	<input type="checkbox"/> Active
 Autoskip to next unprotected field:	<input type="checkbox"/> Active
 Enable right to left support:	<input type="checkbox"/> Active

Note:

The above screenshot applies to sessions of type Telnet TN3270.

Session font

Currently, a fixed TrueType font (Courier New) is used as the default for the client. The session font can be changed locally in the client. See *Modifying the Font for a Host Session* in the *Individual Session Settings* documentation.

Cursor size

Select the cursor size to be used for this session from the drop-down list box.

Cursor blink rate

Specify the cursor blink rate in milliseconds. Valid input ranges from 100 to 2000. If you specify an invalid value, the default value 250 is used.

Text blink rate

Specify the text blink rate in milliseconds. Valid input ranges from 100 to 2000. If you specify an invalid value, the default value 750 is used.

Allow alphanumeric input in numeric fields

Not available for sessions of type Telnet VT.

When this check box is selected, you can enter alphanumeric characters in numeric entry fields while in terminal emulation (for example, to enable you to enter plus or minus signs).

Enable insert mode toggling

Not available for sessions of type Telnet VT.

When this check box is selected, the INSERT key in terminal emulation mode acts like the INS key in other Windows applications (such as Word); it changes from insert mode to overwrite mode. When this check box is not selected, the INSERT key only switches to insert mode; a new screen from the host resets the mode to overwrite mode.

Autoskip to next unprotected field

Not available for sessions of type Telnet VT.

When the last possible character has been entered in an unprotected field, further behavior of the cursor depends on the field attribute and this check box. When this check box is selected, the cursor jumps to the next unprotected field. When this check box is not selected, the cursor jumps to the next position or jumps to the next unprotected field if the field contains the skip attribute.

Enable right to left support

Only available for sessions of type Telnet TN3270.

When this check box is selected, right-to-left mode is supported in terminal emulation.

Prompt user for logon credentials

Only available for sessions of type Natural UNIX.

When this check box is selected and a session is opened with the Terminal Viewer, a logon dialog box appears prompting for user name and password for the UNIX or OpenVMS host before the session is opened.

The logon is processed as described in the section *Using the Viewers with Natural on UNIX and OpenVMS Hosts* in the *Installation and Configuration* documentation.

Data Transfer Properties

These properties are valid for all session types.

	Data Transfer Property	Value
	Keep trailing blanks at the end of downloaded records:	<input type="checkbox"/> Active
	Send a form feed to the printer after download:	<input type="checkbox"/> Active
	Form feed handling in NCD upload:	<input type="checkbox"/> Active
	Ignore leading form feed in download report:	<input type="checkbox"/> Active

Keep trailing blanks at the end of downloaded records

Normally, Entire Screen Builder does not write to disk trailing blanks at the end of downloaded records. However, when this check box is selected, the trailing blanks are also written to disk, thus creating fixed length records in NCD format.

Send a form feed to the printer after download

Normally, Entire Screen Builder routes downloaded data to the printer transparently. However, when this check box is selected, a form feed is sent to the printer at the end of the download.

Form feed handling in NCD upload

When you upload an ASCII file containing the ASCII form feed character (x'12') from the PC to the host, this ASCII character is converted to an EBCDIC space character (x'40).

To convert the ASCII form feed character to something other than a space on the host, you must mark this check box and edit the translation table for the appropriate communication method. The defined form feed character will then be used. The translation tables can be found in the *tables* folder of Entire Screen Builder.

Ignore leading form feed in download report

When you are downloading a report, an empty page precedes the report. However, when this check box is selected, an empty page is not generated.

National Properties

This property does not apply to the session type Natural UNIX.

National Property	Value
 Translation table:	<input type="text" value="N3270Latin"/>

Translation table

Select the translation table to be used for host communication from the drop-down list box.

A translation table defines the translation of characters from the codepage that is used on the host to the codepage to which the PC is set up (Windows ANSI), and vice versa.

The names of the translation tables that are provided in the drop-down list box are the names of the translation table files in the *tables* folder of Entire Screen Builder. Each name of a translation table file supplied with Entire Screen Builder indicates the type of communication. Several names are followed by a country or region indicator (for example, "us", "gr" or "Latin"). When a country or region indicator is not provided, this is a default table which does no translation because translation is not required. Translation tables are identified by the extension "tra". A comment in the top section of each file gives information about its contents. All translation tables supplied with Entire Screen Builder, except *N3270_rus.tra*, use the standard encoding "windows-1252" for the PC codepage.

Important:

The PC codepage used for the translation tables determines the character encoding for XML and HTML files and for the XML Version.

In a translation table there are actually two tables: one for sending and one for receiving. For example, the file *N3270Latin.tra* contains the two Latin (Western European) translation tables - ASC2(Ansi)EBCDICLatin and EBCDICLatin(Ansi)2ASC - which can be used for the communication method Telnet TN3270. The definitions for each table are located directly below the name of the corresponding table.

The following conventions are used for the table names in the translation table files:

- ***ASC2hostcodepage-and-language***
Used to translate data from the PC codepage to the host codepage.
- ***hostcodepage-and-language2ASC***
Used to translate data from host codepage to the PC codepage.

If you want to create your own translation tables, *hostcodepage* and *language* should be meaningful names. "ASC2" or "2ASC" as part of the name is interpreted as a keyword. The first translation table in each file must be the *ASC2hostcodepage-and-language* table.

Default translation tables for the different session types (in the above drop-down list box):

Session Type	Translation Table
BS2000	Bs2000_us
Telnet TN3270	N3270Latin
Telnet VT	Vtxxx

Color Schemes

You can define color schemes for the different host sessions.

Note:

The color scheme can also be defined directly from the Terminal Viewer. See *Modifying the Color Scheme for a Host Session* in the *Individual Session Settings* documentation

This chapter covers the following topics:

- Predefined Color Schemes
 - Overview of Defined Color Schemes
 - Renaming a Color Scheme
-

Predefined Color Schemes

Entire Screen Builder is installed with certain default assignments for supported host systems. The following color schemes are supplied:

Color Scheme	Description
SagBlue	Blue background.
bs2cols	Default color scheme for sessions of type BS2000. Mixed background.
ibm3279	Default color scheme for sessions of type Telnet TN3270. Black background.
monochrome1	White on black background.
monochrome2	Black on white background.
sagcolors	Gray background.
VTCOLORS	Default color scheme for sessions of type Telnet VT and Natural UNIX. Black background.

Overview of Defined Color Schemes

When you select the "Color Schemes" object in the tree-view frame, a list of all defined color schemes appears in the detail-view frame.

Color Schemes		
	Property	Value
	Service status	Stopped
	SagBlue	2
	VTCOLORS	7
	bs2cols	3
	ibm3279	4
	monochrome1	5
	monochrome2	6
	sagcolors	1

Commands

When the Entire Screen Builder Server has been stopped and a color scheme has been selected, the following command buttons are available in the command frame:

Copy Color Scheme	Copy the selected color scheme. Specify a name in the resulting dialog and choose the Save New Color Scheme button.
Delete Color Scheme	Delete the selected color scheme. You will be asked to confirm the deletion.

The default color schemes "ibm3279", "bs2cols" and "VTCOLORS" cannot be deleted or renamed.

Important:

When you delete or rename a color scheme, any session using this color scheme will then use the default color scheme for the corresponding type of session.

Note:

It is not possible to add color schemes using the System Management Hub. It is only possible to rename or copy a color scheme. If you want to add color schemes, you have to use Entire Screen Builder's Server Management tool; see *Adding a Color Scheme* in the *Server Management* documentation.

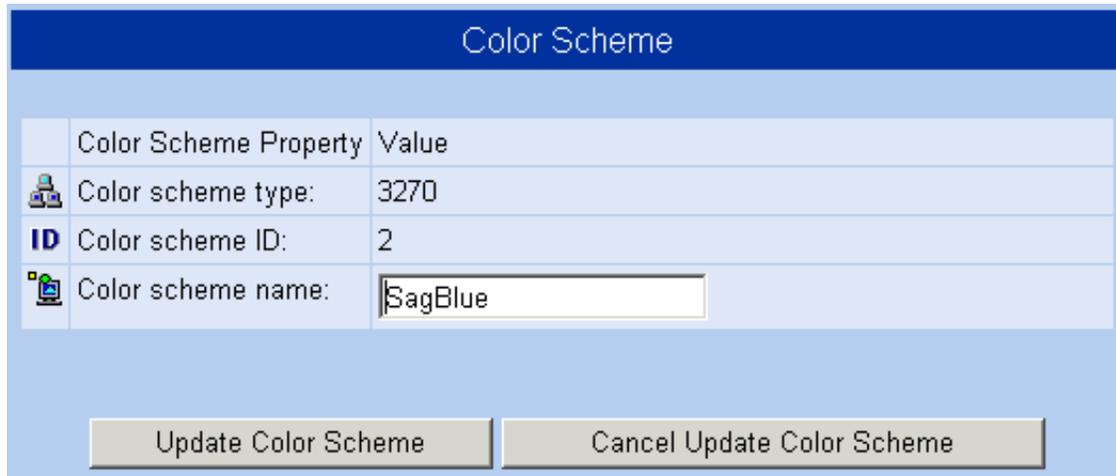
Renaming a Color Scheme

It is only possible to rename a color scheme when the Entire Screen Builder Server has been stopped.

When the server is running, you can only view the properties.

▶ To rename a color scheme

1. Select the desired color scheme in the tree-view frame.
2. In the resulting dialog, rename the color scheme.



	Color Scheme Property	Value
	Color scheme type:	3270
ID	Color scheme ID:	2
	Color scheme name:	<input type="text" value="SagBlue"/>

3. Choose the **Update Color Scheme** button.

Key Schemes

Using key schemes, you can assign host keys to your PC keyboard. You can define key schemes for the different host sessions. This can be one of the key schemes as provided with Entire Screen Builder or a key scheme you have defined yourself.

Note:

The key scheme can also be defined directly from the viewers. See *Modifying the Key Scheme for a Host Session* in the *Individual Session Settings* documentation

This chapter covers the following topics:

- Predefined Key Schemes
- Overview of Defined Key Schemes
- Information About a Key Scheme
- Adding a Key Scheme
- Adding Keys to a Key Scheme
- Adding Actions to a Key Combination
- Terminal Emulation Keys
- Local Function Keys

Predefined Key Schemes

Entire Screen Builder is installed with certain default assignments for supported host systems. The following key schemes are supplied:

Key Scheme	Description
as400keys	Layout for AS400 host systems.
bs2keys1	Default key scheme for sessions of type BS2000. Layout for Siemens BS2000 host systems.
natkeys1	Default key scheme for sessions of type Natural UNIX. Layout for Natural on UNIX and OpenVMS.
sagkeys1	Default key scheme for sessions of type Telnet TN3270. PC-style layout for 3270 host systems.
sagkeys2	IRMA-style layout for 3270 host systems.
VT220PC	Default key scheme for sessions of type Telnet VT. Layout for UNIX and OpenVMS VT220 host systems.

Overview of Defined Key Schemes

When you select the "Key Schemes" object in the tree-view frame, a list of all defined key schemes appears in the detail-view frame.

Key Schemes		
	Property	Value
	Service status	Running
	VT220PC	Key scheme for Telnet VT
	as400keys	Key scheme for Telnet TN3270
	bs2keys1	Key scheme for BS2000
	natkeys1	Key scheme for Natural UNIX
	sagkeys1	Key scheme for Telnet TN3270
	sagkeys2	Key scheme for Telnet TN3270

Commands

When the Entire Screen Builder Server has been stopped, the following command button is available in the command frame:

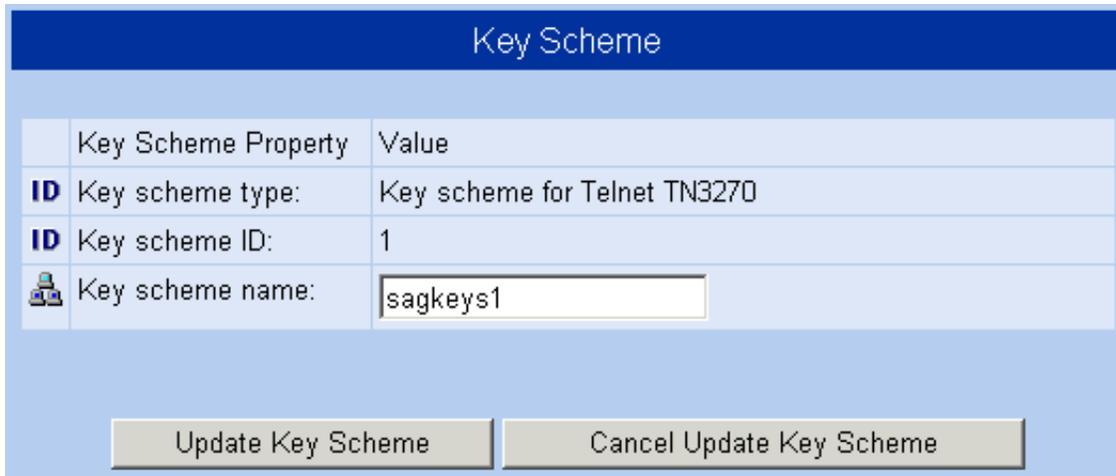
Add Key Scheme	Add a key scheme. See <i>Adding a Key Scheme</i> for detailed information.
-----------------------	--

In addition to the above command button, the following command buttons are available when a key scheme is selected in the tree-view frame:

Copy Key Scheme	Copy the selected key scheme. Specify a name in the resulting dialog and choose the Save New Key Scheme button.
Delete Key Scheme	Delete the selected key scheme. You will be asked to confirm the deletion.

Information About a Key Scheme

When you select a key scheme in the tree-view frame, information about the key scheme appears in the detail-view frame.



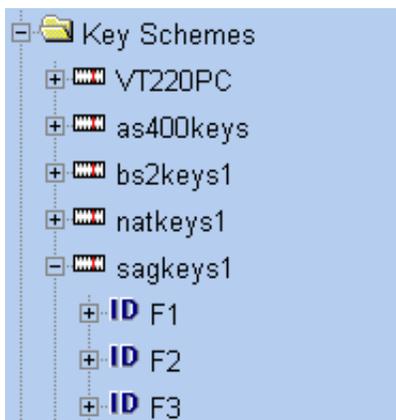
The screenshot shows a window titled "Key Scheme" with a table of properties and two buttons at the bottom.

	Key Scheme Property	Value
ID	Key scheme type:	Key scheme for Telnet TN3270
ID	Key scheme ID:	1
	Key scheme name:	<input type="text" value="sagkeys1"/>

Update Key Scheme Cancel Update Key Scheme

When the Entire Screen Builder Server has been stopped, you can rename the key scheme.

When you expand the node for a key scheme, a list of all currently defined keys appears in the tree-view frame.



Each node for a key can further be expanded. This displays the nodes for possible key combinations. When you expand the node for a key combination, all defined actions for this key combination are shown. Each action represents one key or string to be sent to the host. The following is an example for the key combination CTRL+F7:

The screenshot shows the 'Key Schemes' interface. On the left is a tree view with nodes for F4, F5, F6, F7, and F8. The F7 node is expanded to show 'Single Key', 'Shift', 'Alt', and 'Ctrl'. The 'Ctrl' node is further expanded to show 'Action 0' through 'Action 6'. On the right, a table titled 'Key Schemes' displays the following data:

Property	Value
Service status	Stopped
ID Scheme type:	Key scheme for Telnet TN3270
ID Scheme ID:	1
Scheme name:	sagkeys1
Key name:	F7
Action 0:	STRING: AVS
Action 1:	HOSTKEY: CR
Action 2:	HOSTKEY: CR
Action 3:	STRING: H
Action 4:	HOSTKEY: CR
Action 5:	STRING: B
Action 6:	HOSTKEY: CR

Commands

The available command buttons are determined by the object which is currently selected in the tree-view frame.

Key Scheme

When a key scheme (for example, "bs2keys1") is selected, the following command buttons are available in the command frame:

Add Key	Add a new key to the selected key scheme. See <i>Adding Keys to a Key Scheme</i> .
Copy Key Scheme	Copy the selected key scheme. Specify a name in the resulting dialog and choose the Save New Key Scheme button.
Delete Key Scheme	Delete the selected key scheme. You will be asked to confirm the deletion.

The default key scheme "sagkeys1" cannot be deleted or renamed.

Important:

When you delete or rename a key scheme, any session using this key scheme will then use the default key scheme "sagkeys1".

Key

When a key (for example, F7) is selected, the following command button is available in the command frame:

Delete Key	Delete the selected key. The key is deleted immediately. You are not asked to confirm the deletion.
-------------------	---

Key Combination

When the node for a key combination (for example, "Ctrl") is selected, the following command buttons are available in the command frame:

Add Key Property	Add a new key or string (action) to be sent to the host. See <i>Adding Actions to a Key Combination</i> .
Delete All Key Properties	Delete all keys or strings (actions). The keys or strings are deleted immediately. You are not asked to confirm the deletion.

Key Property

When a key property (for example, "Action 1") is selected, the following command buttons are available in the command frame:

Insert Key Property	Insert a new key or string (action) to be sent to the host below the selected action. See <i>Adding Actions to a Key Combination</i> .
Delete Key Property	Delete the selected key or string (action). The key or string is deleted immediately. You are not asked to confirm the deletion.

Adding a Key Scheme

It is only possible to add a key scheme when the Entire Screen Builder Server has been stopped.

▶ To add a key scheme

1. Select the "Key Schemes" object in the tree-view frame.
2. Choose the **Add Key Scheme** button.
3. In the resulting dialog, select the type of key scheme from a drop-down list box.

Key Scheme Property	Value
ID Key scheme type:	Key scheme for Telnet TN3270
Key scheme name:	

Save New Key Scheme Cancel New Key Scheme

4. Enter a name for the new key scheme.
5. Choose the **Save New Key Scheme** button.
6. Add all required keys to the key scheme as described below.

Adding Keys to a Key Scheme

It is only possible to add keys to a key scheme when the Entire Screen Builder Server has been stopped.

Caution:

The shortcut keys that are displayed next to a menu command in a viewer window (e.g. CTRL+V for pasting text) are not available when the active key scheme uses them for different purposes.

▶ To add a key

1. In the tree-view frame, select the key scheme to which you want to add a key.
2. Choose the **Add Key** button.
3. In the resulting dialog, select the desired key from the drop-down list box.



4. Choose the **Save New Key** button.

The new key is now shown in the tree-view frame. The nodes for the key combinations ("Single Key", "Shift", "Alt" and "Ctrl") are automatically provided for each new key.

5. Add all required actions to a key as described below.

Adding Actions to a Key Combination

It is only possible to add actions to a key combination when the Entire Screen Builder Server has been stopped.

An action represents one key or string to be sent to the host. You can define several actions for each key combination. Thus you can define, for example, a logon sequence consisting of several steps that are executed by pressing a single key.

To add an action, you choose one of two buttons:

- **Add Key Property**

Available when a key combination (for example, "Ctrl") has been selected. This adds a new action below the last defined action in the list.

- **Insert Key Property**

Available when a key property (for example, "Action 1") has been selected. This inserts a new action below the selected action.

▶ **To add an action to a key combination**

1. In the tree-view frame, select a key combination or key property.
2. Choose the **Add Key Property** or **Insert Key Property** button.

The following dialog appears:

Add:	Key Type	Host Key	Local Function	String
Action 7	HOSTKEY	none	none	
Key property:				

Save New Key Property Cancel New Key Property

3. From the **Key Type** drop-down list box, select the type of key you want to define.
 - **HOSTKEY**
A key to be sent to the host (for example, CR).

See also: *Terminal Emulation Keys*.
 - **LOCALFN**
A key for a function that is to be executed on the client (for example, a TAB key). The key is not sent to the host.

See also: *Local Function Keys*.
 - **STRING**
A string to be sent to the host.
4. Depending on the key type defined in the previous step, select a host key or a local function from the corresponding drop-down list box, or specify a string in the corresponding text box. Do not define all three of them at the same time.
5. Choose the **Save New Key Property** button.

The new action is now shown in the tree-view frame.

Caution:

Do not define a host key, local function and a string at the same time.

Terminal Emulation Keys

A distinction is made between terminal function keys and physical function keys:

- Terminal Function Keys

This terms refers to all host keys that start a terminal function. Different host systems have different terminal functions and associated keys. Examples for IBM 3270 hosts: PF1, PF2, ATTN, PA1. Examples for Siemens hosts: K1, FKT1, DUE1.

- Physical Function Keys

This terms refers to all keys on the physical keyboard (that is: the PC keyboard) that can be used as function keys. Examples: F1, F2, CTRL+F3, CTRL+A, ALT+B. Entire Screen Builder has a unique name for each function key.

Terminal Function Keys

Some terminal function key names are found on all host systems, others are specific to a given host system. Entire Screen Builder supports the following:

- 3270 Function Key Names
- 9750 Function Key Names
- Natural UNIX and Natural OpenVMS Function Key Names
- OS/400 Function Key Names
- VT Function Key Names

3270 Function Key Names

The following key names can be assigned to your PC keyboard in order to transmit the corresponding 3270 key to the host:

ATTN
CLEAR
CR
DEVCONCL
EEOF
ERASEINP
PA1 to PA3
PF1 to PF24
RESET
SYSREQ

If any of the following key names is assigned to your PC keyboard, Entire Screen Builder will automatically wait for a response from the host before continuing:

ATTN
CLEAR
CR
PA1 to PA3
PF1 to PF24

9750 Function Key Names

The following key names can be assigned to your PC keyboard in order transmit the corresponding 9750 key to the Siemens BS2000 host:

AFG
AFZ
DUE1
DUE2
EFG
EFZ
ENDM
FKT1 to FKT24
K1 to K14
LSP
LVD
LZE
LZF
MAR
P1 to P20
RU
SBA
SDZ
SML
SMO
SMR
SMU
SNZ
SZA
TABL
TABR

Natural UNIX and Natural OpenVMS Function Key Names

The following key names can be assigned to your PC keyboard in order to transmit the corresponding Natural UNIX or Natural OpenVMS key to the host:

NAT_CR
NAT_PF1 to NAT_PF48

OS/400 Function Key Names

The following key names can be used in the host communication method `SendKey` of the script language:

AS_PF1 to AS_PF12

For OS/400 type sessions, the single keys PF1 to PF12 are sent to the host. They reflect the Telnet TN3270 keyboard setting:

PF1	5250 HELP key
PF2	3270 keyboard help
PF3	Clear display
PF4	Print display
PF5	Display attributes
PF6	Test request
PF7	Page up (roll down)
PF8	Page down (roll up)
PF9	Attention (ATTN)
PF10	Keyboard error reset
PF11	System request (SYSREQ)
PF12	Record backspace

VT Function Key Names

The following key names can be assigned to your PC keyboard in order to transmit the corresponding VT-type key to the host:

AKEY1 to AKEY15
CTRL_A to CTRL_Z

Physical Function Keys

Physical function keys are all keys and key combinations that can be used as function keys by Entire Screen Builder. Using the System Management Hub, you can assign an emulation key to a function key. When the function key is pressed in the viewer, the assigned action is executed.

All physical function keys have symbolic names in Entire Screen Builder. These symbolic names are displayed in the System Management Hub.

The following tables list the Entire Screen Builder physical function keys and indicates the combinations in which these keys can be used.

Key	single key	Shift	Ctrl	Alt
0 through 9			X	X
A through Z			X	X
CR	X	X	X	X
ESC		X*		
F1 through F12	X	X	X	X
GRAY-DELETE	X	X	X	X
GRAY-END	X	X*	X	
GRAY-HOME	X	X*	X	
GRAY-INSERT	X	X	X	X
GRAY-PGUP	X	X*	X	
GRAY-PGDN	X	X*	X	
TEENTER			X	

* This key combination is only available for the Terminal Viewer.

Note:

TEENTER is the right CTRL key.

Numeric keypad (NUMLOCK must be enabled for the "NUMPAD_" keys):

Key	single key	Shift	Ctrl	Alt
CENTER	X			
END	X			
GRAY *	X	X	X	X
GRAY /	X	X	X	X
GRAY -	X	X	X	X
GRAY +	X	X	X	X
GRAYCR	X	X	X	X
HOME	X			
NUMPAD_0	X			
NUMPAD_1	X			
NUMPAD_2	X			
NUMPAD_3	X			
NUMPAD_4	X			
NUMPAD_5	X			
NUMPAD_6	X			
NUMPAD_7	X			
NUMPAD_8	X			
NUMPAD_9	X			
NUMPAD_DOT	X			
PGDN	X			
PGUP	X			

Special 3270 type keyboard function keys:

Key	single key	Shift	Ctrl	Alt
ATTN	X			
CRSEL	X			
EREOF	X			
EXSEL	X			
F13 through F24	X	X	X	X
NONAME	X			
OEM_CLEAR	X			
PA1	X			
PLAY	X			
ZOOM	X			

Note:

Entire Screen Builder supports the above function keys of the 3270 type keyboards only if the keys generate the correct key events in the Windows operating system. You may need the appropriate device driver for your keyboard from the keyboard supplier.

Local Function Keys

Local function keys are used to execute functions on the client. There is no communication with the host.

The following local functions can be assigned to your PC keyboard:

Local Function	Description
BACKTAB	Set the cursor to the beginning the previous input field.
BEGINOFFIELD	Set the cursor to the beginning of the current input field.
EEOF	Erase all text from the current cursor position to the end of the input field.
ERASEINP	Clear all input fields.
HOME	Set the cursor to the beginning of the first input field on the screen.
PREVIOUSLINE	Set the cursor to the beginning of the first input field in the previous line.
NEWLINE	Set the cursor to the beginning of the first input field in the next line.
RESETSTATUS	Reset the BS2000 status line. Can only be used for sessions of type BS2000.
TAB	Set the cursor to the beginning the next input field.

BS2000 P-Key Schemes

P-keys (programmable keys) are only available for sessions of type BS2000.

Note:

The P-key scheme can also be defined directly from the viewers. See *Modifying the P-Key Scheme for a Host Session* in the *Individual Session Settings* documentation

This chapter covers the following topics:

- Overview of Defined P-Key Schemes
- Adding a P-Key Scheme
- Defining the P-Key Content

Overview of Defined P-Key Schemes

When you select the "BS2000 P-Key Schemes" object in the tree-view frame, a list of all defined P-key schemes appears in the detail-view frame.

BS2000 P-Key Schemes		
	Property	Value
	Service status	Stopped
	Admin1	1
	Admin2	2
	Test	3

Commands

When the Entire Screen Builder Server has been stopped, the following command button is available in the command frame:

Add BS2000 P-Key Scheme	Add a P-key scheme. See <i>Adding a P-Key Scheme</i> for detailed information.
--------------------------------	--

In addition to the above command button, the following command buttons are available when a P-key scheme is selected in the tree-view frame:

Copy BS2000 P-Key Scheme	Copy the selected P-key scheme. Specify a name in the resulting dialog and choose the Save New P-Key Scheme button.
Delete BS2000 P-Key Scheme	Delete the selected P-key scheme. You will be asked to confirm the deletion.

Adding a P-Key Scheme

It is only possible to add a P-key scheme when the Entire Screen Builder Server has been stopped.

▶ To add a P-key scheme

1. Select the "BS2000 P-Key Schemes" object in the tree-view frame.
2. Choose the **Add BS2000 P-Key Scheme** button.
3. In the resulting dialog, enter a name for the new P-key scheme.
4. Define all required P-keys as described below.
5. Choose the **Save New BS2000 P-Key Scheme** button.

Defining the P-Key Content

It is only possible to define the content of a P-key when the Entire Screen Builder Server has been stopped.

The following dialog appears when you add a P-key scheme.

BS2000 P-Key Scheme	
BS2000 P-Key Scheme Property	Value
P-key scheme name:	<input type="text"/>
P1:	<input type="text"/>
P2:	<input type="text"/>
P3:	<input type="text"/>
P4:	<input type="text"/>
P5:	<input type="text"/>
P6:	<input type="text"/>
P7:	<input type="text"/>
P8:	<input type="text"/>

When the server has been stopped, this dialog also appears when you select an existing P-key scheme in the tree-view frame.

 **To define the P-key content**

1. Add one of the following in the text box for the desired P-key:

- a command string, or
- a 9750 terminal function (see *9750 Function Key Names*), or
- a mixture of both.

All 9750 function codes must be enclosed in brackets. For example:

<AFG>

If a code has more than 6 characters (including the brackets), it is treated as pure text.

The P-key content can be up to 500 characters long.

2. Choose the **Update BS2000 P-Key Scheme** button.

User and Group Concept

The viewers can connect to the Entire Screen Builder Server either anonymously or with named users. The user profile is then created based on administrator-defined user and group settings stored in the server configuration files. This profile controls access to the server resources (e.g. sessions and scripts) and certain personalized settings (e.g. color profile).

This chapter covers the following topics:

- Profile Creation Parameters
 - Controlling Session Access with the User and Group Mechanism
 - Controlling Script Access with the User Mechanism
 - Changing Session Parameters with the User and Group Mechanism
-

Profile Creation Parameters

The parameters controlling profile creation are:

1. The following server settings: **Allow scripts for all users** and **Allow all sessions for all users**.
2. The client control property `AnonymousLogon`.
3. The user profile.
4. The group profile.

The server settings **Allow scripts for all users** and **Allow all sessions for all users** have the highest priority. If true, they allow complete access to scripts and sessions regardless of other settings in the group and user profiles.

The client control property `AnonymousLogon` defines whether you connect as a named or anonymous user.

The administrator can also create a user profile called "anonymous" to control the access for `AnonymousLogon` sessions.

Note that the user name "anonymous" cannot be entered in the viewers - the client control property `AnonymousLogon` must be set to true.

The installation values for the server settings **Allow scripts for all users** and **Allow all sessions for all users** together with the default for the client control property `AnonymousLogon` are all true. This reflects the behavior of the previous versions of Entire Screen Builder (4.1.1 and 4.2.1) so that after an upgrade installation to version 4.3.1, the server works in the same way as before.

To limit access to sessions, you must set the server value **Allow all sessions for all users** to false. Once this value is cleared, only defined users included in defined groups will have access to the server. This includes the anonymous user which must be added and then included in a group.

To limit access to scripts, you must set the server value **Allow scripts for all users** to false. Once this value is cleared, users will only be able to run scripts defined for them.

One exception to this are the debug scripts held in the folder `scripts\test`. Any user with **Debug permission** set to true can access all test scripts - this feature is only available for the Terminal Viewer.

The minimum user and group profiling required is the creation of the user called "anonymous" and one group with the user "anonymous" as a member. You then define the allowed sessions in the group and the allowed scripts in the "anonymous" user profile. In this scenario, all users have to connect with the client control property `AnonymousLogon` set to true.

Controlling Session Access with the User and Group Mechanism

The following steps are required to control session access:

1. Set the server setting **Allow all sessions for all users** to false.
2. Define named users and, if required, the "anonymous" user.
3. Create one or more groups.
4. Define the allowed sessions for the groups.
5. Add the users to the group(s).

Connections made from the GUI viewers will be allowed only if the requested host session has been allowed for that user. This includes the connection ID 0 (the default session for the user).

All groups that the user is a member of will be checked for the session.

If the user connects from the Terminal Viewer, the Open Session dialog box will contain only the sessions allowed in the groups to which this user belongs.

Controlling Script Access with the User Mechanism

The following steps are required to control script access:

1. Set the server setting **Allow scripts for all users** to false.
2. Define named users and, if required, the "anonymous" user.
3. Define the allowed scripts for each user.

The scripts shown in the Select Script dialogs for all viewers are limited to those allowed for the current user profile. If an attempt is made to start a script to which access is not allowed, this will be rejected.

Changing Session Parameters with the User and Group Mechanism

Certain session parameters can be configured on a group basis. This is done with the Configured Sessions in the group profile. You can then override session parameters defined for the host, for example, the key scheme. If no session parameters are configured, the defaults for that session will be used.

In the user profile, several Terminal Viewer specific entries can be set, for example, allowing debug permission.

You should try to avoid using Configured Sessions when more than one group containing the same sessions has the same users as members. In this case, the server will use the first group it finds containing the session configuration - this may result in inconsistent results.

Users

You can define user names, passwords and other user-specific properties in a user profile. The user profile is activated when the user connects and logs on to the Entire Screen Builder Server.

This chapter covers the following topics:

- User Types
 - Overview of Defined User Profiles
 - Adding a User Profile
 - Updating a User Profile
 - General Properties
 - Allowed Scripts
 - Startup Script
 - Groups
 - Terminal Viewer and GUI Viewer Properties
 - Terminal Viewer Properties
-

User Types

Entire Screen Builder distinguishes the following types of users:

- Anonymous User
- Defined User

Anonymous User

All users who connect to the Entire Screen Builder Server with anonymous logon enabled are anonymous users. Logon information is not required when connecting to the server.

Normally, anonymous users do not have a user profile. However, the administrator can create a special user called "anonymous" with profile settings for all users connecting anonymously. This feature allows the administrator to set values such as startup scripts and a default session.

If you want to limit the sessions that are available to the anonymous users, create a group first and then add the user "anonymous" to this group. The group properties will then be picked up as usual.

If you do not want to use the user and group concepts, make sure that **Allow scripts for all users** and **Allow all sessions for all users** have been activated in the server settings. Otherwise, there will be no sessions and no scripts for users connecting anonymously. After installation, these two properties are activated by default.

See the *Overview of Client Control Properties* in the *User Exits* documentation for further information on anonymous logon.

Note:

The user "anonymous" cannot be used in the User Authentication dialog box which is used to log on to the Entire Screen Builder Server.

Defined User

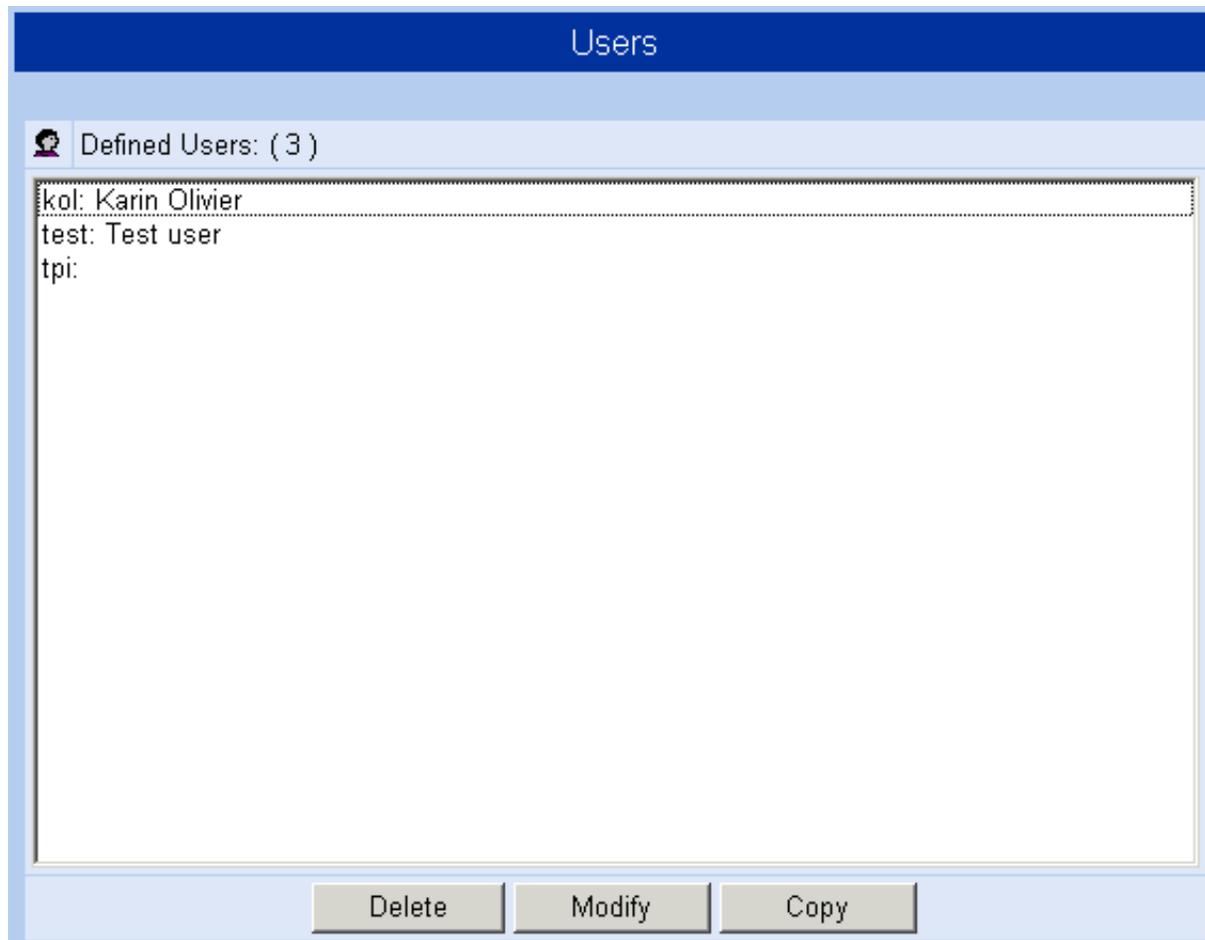
Logon information is required when users want to connect to the Entire Screen Builder Server using their own profiles. The administrator creates the user profiles for the users who want to use their own profiles. See *Adding a User Profile* below for further information.

The user then has to specify the user name as defined in the user profile in the User Authentication dialog box. If defined by the administrator, the user must also provide password.

A user may have a personal profile and may be a member of one or more groups.

Overview of Defined User Profiles

When you select the "Users" object in the tree-view frame, a list of all defined user profiles appears in the detail-view frame.



Commands

The following command buttons are available:

Add New User	Available in command frame. Add a new user profile. See <i>Adding a User Profile</i> .
Delete	Available in detail-view frame. Delete the selected user profile. You will be asked to confirm the deletion.
Modify	Available in detail-view frame. Display and/or modify the selected user profile. See <i>Updating a User Profile</i> .
Copy	Available in detail-view frame. Copy the selected user profile. Specify a name in the resulting dialog and choose the Save button.

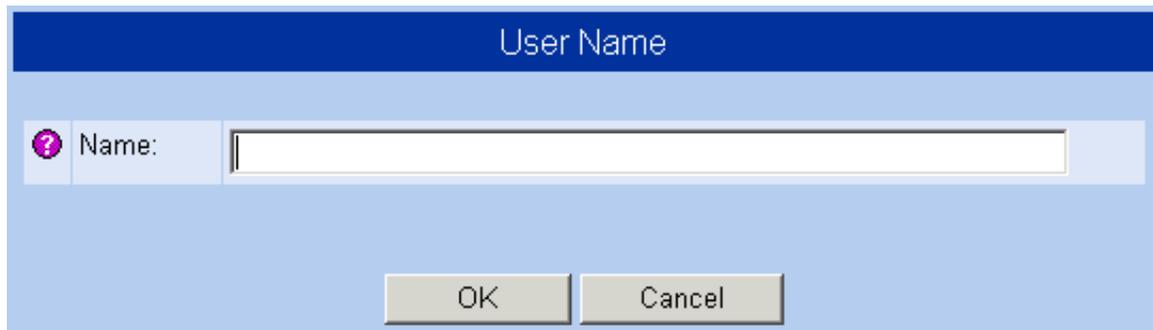
Adding a User Profile

You do not have to stop the Entire Screen Builder Server. You can also add user profiles when the server is running.

▶ To add a user profile

1. Select the "Users" object in the tree-view frame.
2. Choose the **Add New User** button.

The User Name dialog appears.

A screenshot of a dialog box titled "User Name". The dialog has a blue header bar with the title "User Name" in white. Below the header, there is a light blue background. On the left side, there is a purple circular icon with a white dot in the center, followed by the label "Name:". To the right of the label is a white text input field with a thin border. At the bottom of the dialog, there are two buttons: "OK" and "Cancel", both with a light gray background and a thin border.

3. Specify a name for the user.
 4. Choose the **OK** button.
- The Create User dialog appears.
5. Specify all required properties (see the property descriptions below).
 6. Choose the **Update User** button at the bottom of the detail-view frame.

Updating a User Profile

You do not have to stop the Entire Screen Builder Server. You can also update a user profile when the server is running.

▶ To update a user profile

1. Select the desired user in the list of defined user profiles.
2. Choose the **Modify** button.

The Modify User dialog appears.

3. Modify all required properties (see the property descriptions below).
4. Choose the **Update User** button at the bottom of the detail-view frame.

General Properties

	Property	Value
	User name:	tpi
	User description:	<input type="text"/>
	Password:	<input type="password"/>
	Password required:	<input type="checkbox"/> Required
	Default session:	<input type="text" value="ibm1"/>

User name

A user name can be up to 32 alphanumeric characters (case-insensitive) long and must not contain blanks. It must not already exist. This can only be specified when adding a new user profile. Later, this text box cannot be modified.

User description

A brief description for the user (e.g. last name and first name or a title).

Password

The password ensures the security of the user's Entire Screen Builder environment. It consists of 1 to 32 alphanumeric characters. The password is case-sensitive. It is used when the user logs on to the Entire Screen Builder Server.

Password required

When this check box is selected, the password must be supplied at logon.

Default session

Select the default host session from this drop-down list box.

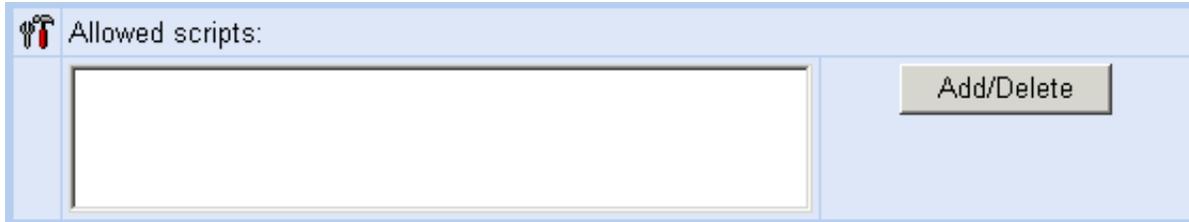
If **Allow all sessions for all users** has been activated in the server settings, this drop-down list box shows all defined host sessions. If it has not been activated, this drop-down list box only shows the host sessions which are defined for the group to which the user belongs.

GUI viewers: The default session is used when the session ID 0 (zero) has been specified in the HTML page and there is no startup script for the user.

Terminal Viewer: The default session is automatically selected in the Open Session dialog box. See *Starting a Host Session* in the *Terminal Viewer* documentation.

Allowed Scripts

You can allow any script that has previously been added to the *production* folder. See the *Script Files* documentation.



When scripts have already been allowed for the user, they are shown in the list box.

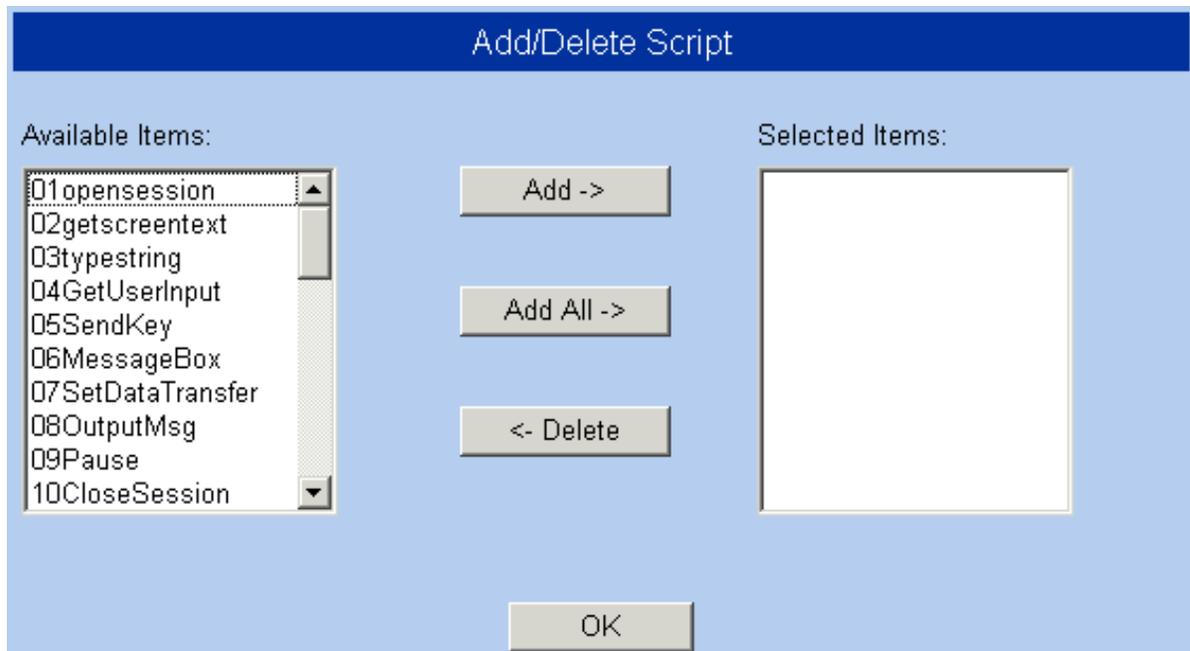
If **Allow scripts for all users** has been activated in the server settings, the settings in the user profile are overwritten. Each script can then be selected as the startup script (see below).

If **Allow scripts for all users** has been deactivated, the allowed scripts are considered. In this case, it is only possible to select a startup script that has been allowed.

▶ To allow or disallow scripts

1. Choose the **Add/Delete** button.

The Add/Delete Script dialog appears.



All scripts in the *production* folder that have not yet been allowed are shown in the Available Items list box on the left. Scripts that have already been allowed are shown in the Selected Items list box on the right.

2. Choose one of the following command buttons:

Add	Add the selected available item to the list of allowed scripts.
Add All	Add all available items to the list of allowed scripts.
Delete	Delete the selected item from the list of allowed scripts.

3. Choose the **OK** button.

Startup Script

 Use startup script below:	<input type="checkbox"/> Active
 Startup script:	01opensesion 

Use startup script below

When this check box is selected, the startup script specified below will be used.

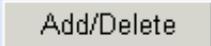
Startup script

From the drop-down list box, select the name of the script file that is to be executed immediately after the user has logged on to the Entire Screen Builder Server. The drop-down list box provides for selection the script files stored in the *production* folder.

See also: *General Information on Script Files* in the *Script Files* documentation.

Groups

You can add the user to any group that has previously been defined. See *Groups*.

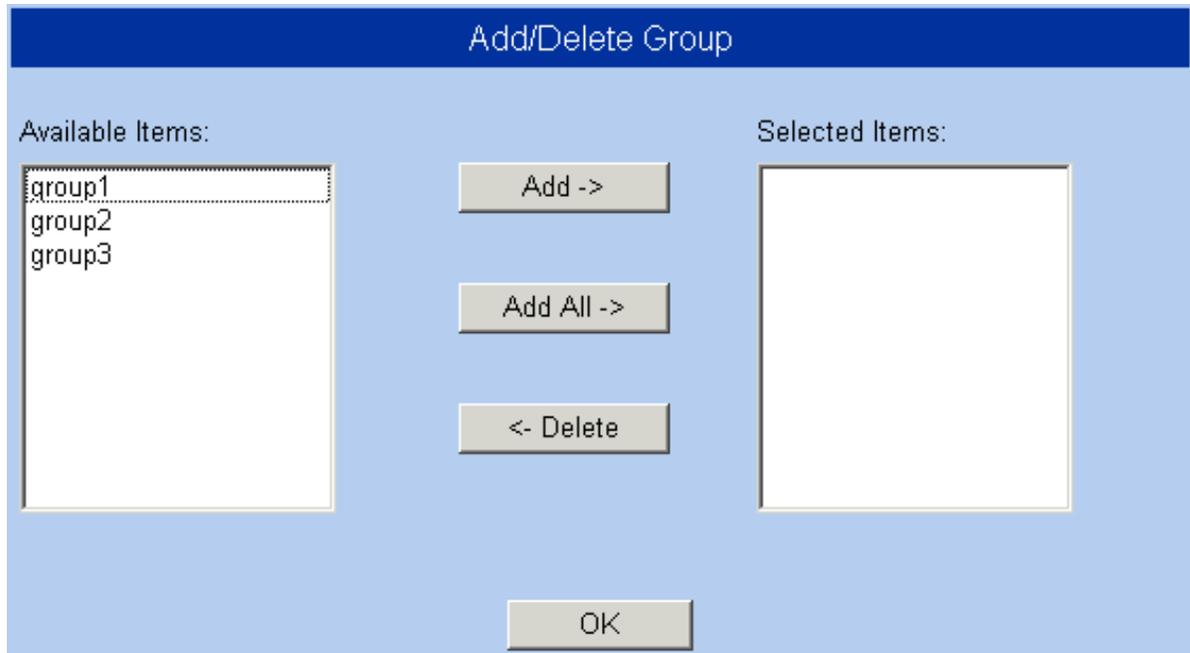
 Groups:	
<div style="border: 1px solid black; height: 50px; width: 100%;"></div>	

When the user has already been added to one or more groups, they are shown in the list box.

▶ **To add or remove the user to/from a group**

1. Choose the **Add/Delete** button.

The Add/Delete Group dialog appears.



All groups to which the user has not yet been added are shown in the Available Items list box on the left. Groups to which the user has already been added are shown in the Selected Items list box on the right.

2. Choose one of the following command buttons:

Add	Add the user to the selected available group.
Add All	Add the user to all available groups.
Delete	Delete the user from the selected group.

3. Choose the **OK** button.

Terminal Viewer and GUI Viewer Properties

These properties only apply to the Terminal Viewer and the GUI viewers.

Terminal Viewer And GUI Viewer Only	
 PC speaker beep on errors and warnings:	<input type="checkbox"/> Yes
 Key scheme editing allowed:	<input checked="" type="checkbox"/> Yes
 P-key scheme editing allowed:	<input checked="" type="checkbox"/> Yes

PC speaker beep on errors and warnings

When this check box is selected, the PC speaker beeps when an error occurs or when a warning is issued.

Key scheme editing allowed

When this check box is selected, the user is allowed to create and modify key schemes. See *Working with Key Schemes* in the *Individual Session Settings* documentation.

When this check is not selected, the corresponding command is disabled in the viewer.

P-key scheme editing allowed

When this check box is selected, the user is allowed to create and modify P-key schemes. See *Modifying the P-Key Scheme for a BS2000 Host Session* in the *Individual Session Settings* documentation.

When this check is not selected, the corresponding command is disabled in the viewer.

Terminal Viewer Properties

These properties only apply to the Terminal Viewer.

Terminal Viewer Only	
 Autolock:	<input type="text" value="0"/>
 Cursor size:	<input type="text" value="Small"/>
 Text blink rate:	<input type="text" value="750"/>
 Cursor blink rate:	<input type="text" value="250"/>
 Debug permission:	<input checked="" type="checkbox"/> Granted
 Color scheme editing allowed:	<input checked="" type="checkbox"/> Yes
 Font editing allowed:	<input checked="" type="checkbox"/> Yes
 Input history:	<input type="checkbox"/> Yes
 Language:	<input type="text" value="English"/>

Autolock

Specify the length of time, in minutes, that the user can be inactive before the session is locked. Valid input is any integer from 1 through 60.

When the session is locked, "locked" appears in the title bar of the viewer. If you choose **Lock/Unlock Session** from the **Utilities** menu, the Entire Screen Builder Logon dialog box appears. To unlock your session, enter your password, if required, and choose the **OK** button.

Cursor size

Select the cursor size from this drop-down list box. This parameter applies only to Entire Screen Builder and does not affect other Windows applications.

This has no effect on the cursor size if the INS key is pressed. In insert mode, the cursor is always shown as a large block.

Text blink rate

Specify the text blink rate in milliseconds. Valid input ranges from 100 to 2000. If you specify an invalid value, the default value 750 is used. This overwrites the value defined in the host session.

Cursor blink rate

Specify the cursor blink rate in milliseconds. Valid input ranges from 100 to 2000. If you specify an invalid value, the default value 250 is used. This overwrites the value defined in the host session.

Debug permission

When this check box is selected, the user is allowed to use the script debugger. See *Debugging a Script File* in the *Script Files* documentation.

When this check is not selected, the **Debug** button in the Select Script dialog box is disabled.

Color scheme editing allowed

When this check box is selected, the user is allowed to create and modify color schemes. See *Modifying the Color Scheme for a Host Session* in the *Individual Session Settings* documentation.

When this check is not selected, the corresponding command is disabled in the viewer.

Font editing allowed

When this check box is selected, the user is allowed to select a different font. See *Modifying the Font for a Host Session* in the *Individual Session Settings* documentation.

When this check is not selected, the corresponding command is disabled in the viewer.

Input history

When this check box is selected, the Terminal Viewer stores up to 50 user entries. These entries are provided for selection in the input history window of the Terminal Viewer. It is then possible to execute a previously entered command once more or insert previously entered text in a field. See *Input History* in the *Terminal Viewer* documentation.

Language

Select the language in which the user interface of the Terminal Viewer is to be displayed. The user interface is not shown in the selected language until you quit the Terminal Viewer and start it once more.

Groups

Once a profile for a user has been defined, the user can be assigned to one or more user groups. The user inherits all authorizations and session profiles defined for the groups to which he or she is assigned.

This chapter covers the following topics:

- Overview of Defined Groups
 - Information About a Group
 - Adding a Group
 - Updating a Group
 - General Properties
 - Users
 - Allowed Sessions
 - Configured Sessions
-

Overview of Defined Groups

When you select the "Groups" object in the tree-view frame, a list of all defined groups appears in the detail-view frame.

Groups Properties		
	Property	Value
	Service status	Stopped
	Number of Groups	4
	group1	Description for Group1
	group2	Description for Group2
	group3	Description for Group3
	testgroup	Group for testing

Commands

The following command button is available in the command frame:

Add New Group	Add a new group. See <i>Adding a Group</i> .
----------------------	--

Information About a Group

When you expand the "Groups" object and then select a group in the tree-view frame, a list of all defined users and allowed sessions appears in the detail-view frame.

Group Details	
Property	Value
 testgroup	Group for testing
 kol	Karin Olivier
 test	Test user
 tpi	
Allowed sessions	
 BS2000	
 IBM	

Commands

The following command buttons are available in the command frame:

Delete Group	Deletes the selected group. You will be asked to confirm the deletion.
Modify Group	Display and/or modify the selected group. See <i>Updating a Group</i> .
Copy Group	Copies the selected group. Specify a name in the resulting dialog and choose the Save button.

Adding a Group

You do not have to stop the Entire Screen Builder Server. You can also add groups when the server is running.

▶ To add a group

1. Select the "Groups" object in the tree-view frame.
2. Choose the **Add New Group** button.

The Group dialog appears.



3. Specify a name for the group.
 4. Choose the **OK** button.
- The Add New Group dialog appears.
5. Specify all required properties (see the property descriptions below).
 6. Choose the **Update Group** button at the bottom of the detail-view frame.

Updating a Group

You do not have to stop the Entire Screen Builder Server. You can also update groups when the server is running.

▶ To update a group

1. Expand the "Groups" object and select the desired group in the tree-view frame.
2. Choose the **Modify Group** button.

The Modify Group dialog appears.

3. Modify all required properties (see the property descriptions below).
4. Choose the **Update Group** button at the bottom of the detail-view frame.

General Properties

Add New Group	
Property	Value
 Group name:	testgroup
 Group description:	<input type="text"/>

Group name

The name can only be specified when adding a new group. Later, this text box cannot be modified.

Group description

A brief description for the group.

Users

You can add any user that has previously been defined. See *Users*.

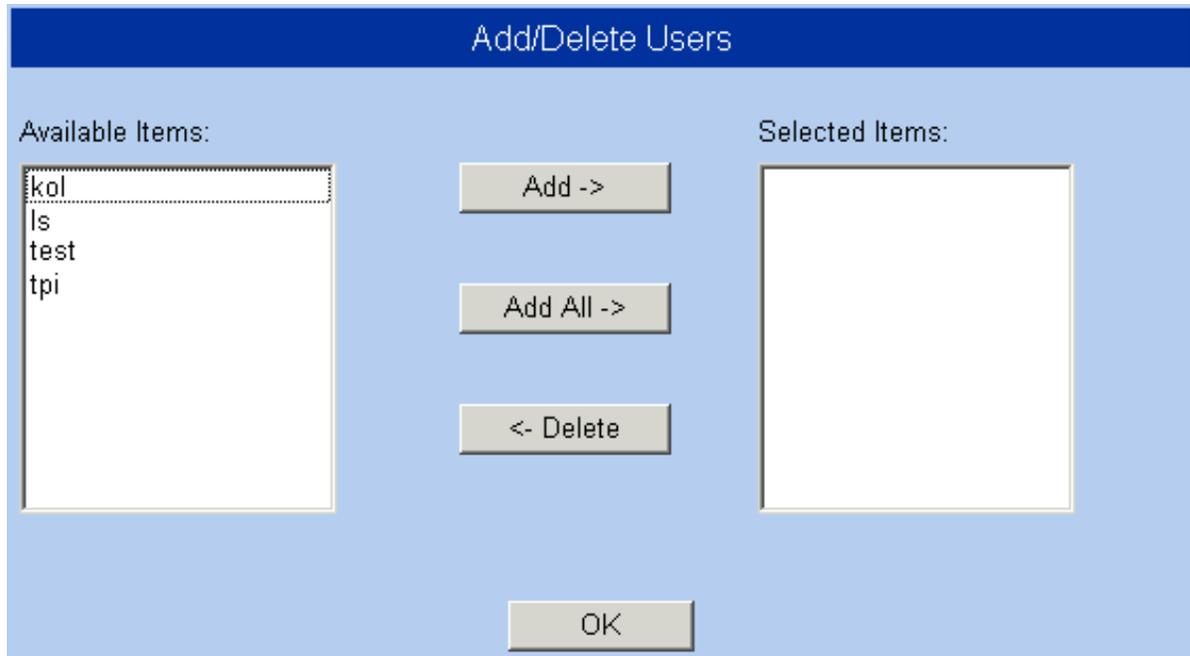
 Users:	<input type="text"/>	<input type="button" value="Add/Delete"/>
--	----------------------	---

When users have already been added to the group, they are shown in the list box.

▶ **To add or remove users to/from the group**

1. Choose the **Add/Delete** button.

The Add/Delete User dialog appears.



All users that have not yet been added to the group are shown in the Available Items list box on the left. Users that have already been added are shown in the Selected Items list box on the right.

2. Choose one of the following command buttons:

Add	Add the selected available user to the group.
Add All	Add all available users to the group.
Delete	Delete the selected user from the group.

3. Choose the **OK** button.

Allowed Sessions

You can allow any session that has previously been defined. See *Host Sessions*.

If **Allow all sessions for all users** has been activated in the server settings, this overwrites the settings for the groups.

Important:

You have to allow at least one session for the group. Otherwise, the users in this group cannot start a host session.

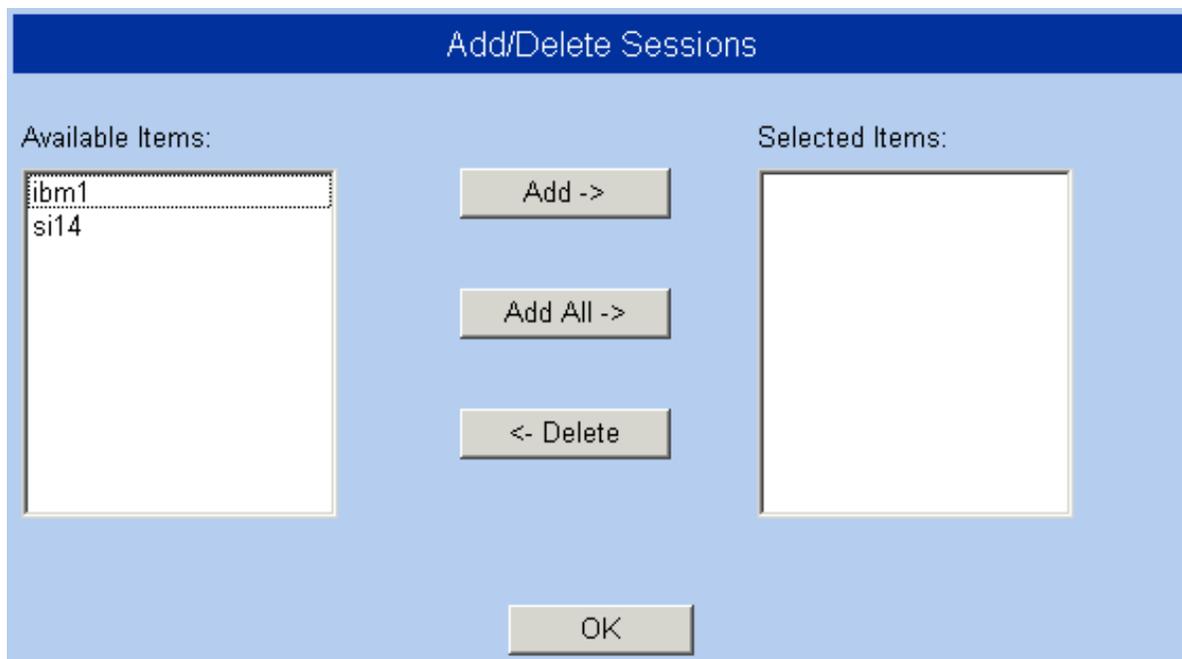


When sessions have already been allowed for the group, they are shown in the list box.

▶ To allow or disallow sessions for the group

1. Choose the **Add/Delete** button.

The Add/Delete Sessions dialog appears.



All sessions that have not yet been allowed for the group are shown in the Available Items list box on the left. Sessions that have already been allowed are shown in the Selected Items list box on the right.

2. Choose one of the following command buttons:

Add	Allow the selected available session.
Add All	Allow all available sessions.
Delete	Disallow the selected session.

3. Choose the **OK** button.

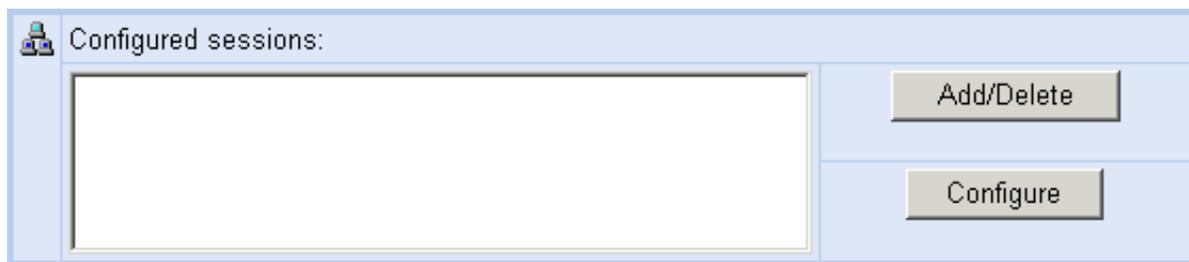
Configured Sessions

You can modify some of the session properties (for example, color scheme and key scheme).

If **Allow all sessions for all users** has been activated in the server settings, each session can be configured. The allowed sessions (see above) are not considered in this case.

If **Allow all sessions for all users** has been deactivated, the allowed sessions are considered. In this case, it is only possible to configure the sessions that have been allowed.

Two steps are required: first, you select a session for configuration and then you configure the session (see below).

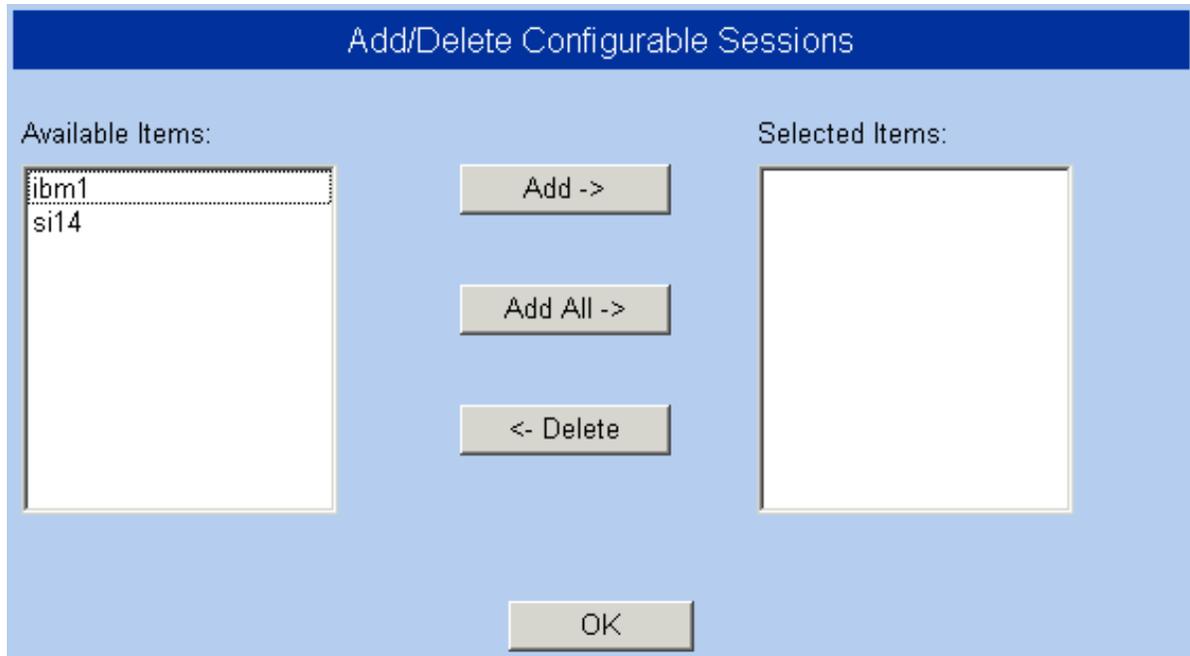


When sessions have already been selected for configuration, they are shown in the list box.

▶ **To select a session for configuration**

1. Choose the **Add/Delete** button.

The Add/Delete Configurable Sessions dialog appears.



The sessions that have not yet been selected for configuration are shown in the Available Items list box on the left. Sessions that have already been selected for configuration are shown in the Selected Items list box on the right.

2. Choose one of the following command buttons:

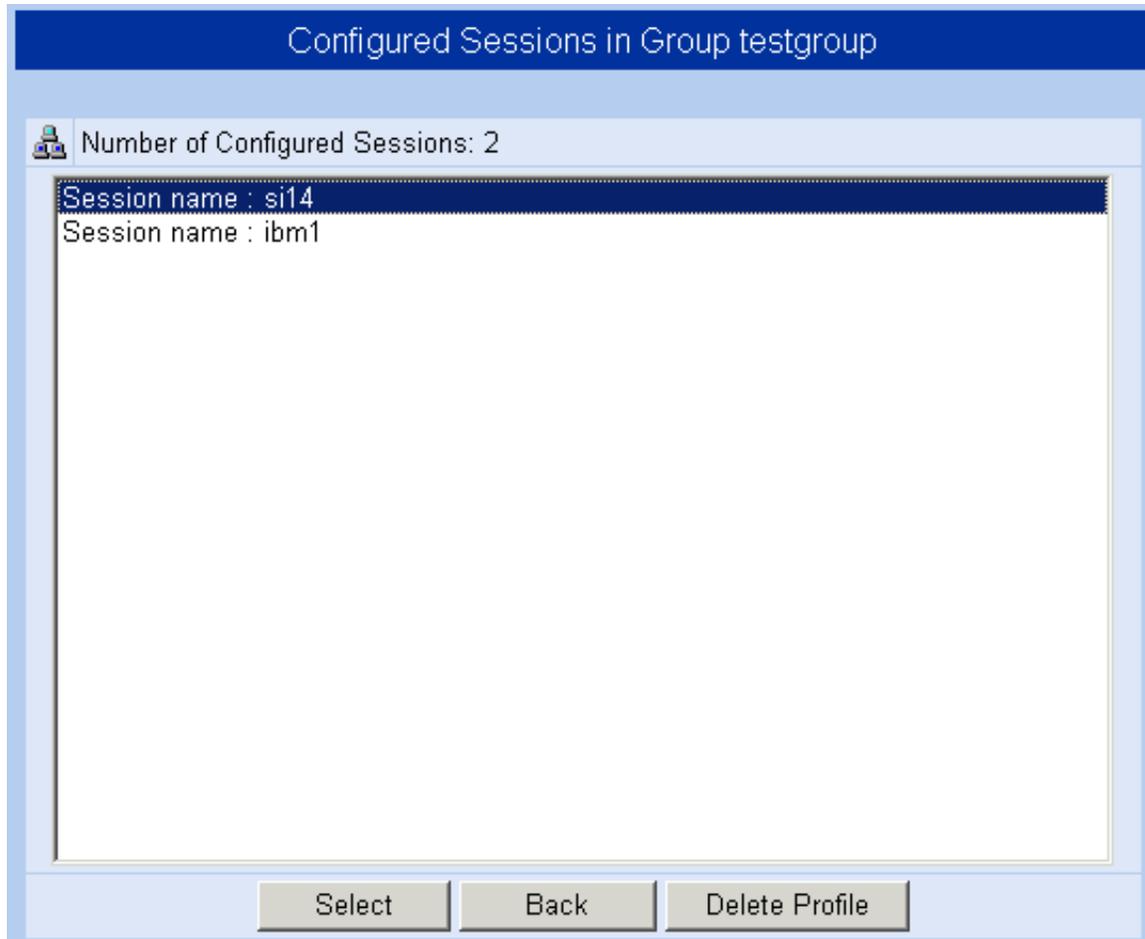
Add	Add the selected available session.
Add All	Add all available sessions.
Delete	Delete the selected session.

3. Choose the **OK** button.

▶ **To configure a session**

1. Choose the **Configure** button.

The Configured Sessions in Group dialog appears.



2. Select the session to be configured.
3. Choose the **Select** button.

The Configure Session dialog appears. For example:

Configure Session si14	
Terminal Viewer Property	Value
 Text blink rate:	<input type="text" value="750"/>
 Cursor blink rate:	<input type="text" value="250"/>
 Session font:	<input type="text" value="Courier New"/>
Property	Value
 Color scheme:	<input type="text" value="bs2cols"/>
 Key scheme:	<input type="text" value="bs2keys1"/>
 BS2000 P-key scheme:	<input type="text" value="--- None ---"/>

4. Modify all required properties.

A detailed description of these properties can be found in the section *Host Sessions*.

The following properties apply only to Terminal Viewer sessions: **Text blink rate**, **Cursor blink rate** and **Session font**.

The property **BS2000 P-key scheme** is only shown for sessions of type BS2000.

5. Choose the **Update Session** button to save your modifications.

To delete a configured session

1. Choose the **Configure** button.

The Configured Sessions in Group dialog appears.

2. Select the session to be deleted.
3. Choose the **Delete Profile** button.