



Entire Screen Builder

GUI Viewers

Version 4.3.1



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

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

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GUI Viewers

This section only applies to the following viewers: Windows Viewer, Web Viewer and Java Viewer.

Using the Entire Screen Builder GUI viewers (which run on the client workstations), you can display the host screens. The transformation rules that have been defined with the SDK will then be applied. Any input that the user applies to a host screen will be sent to the Entire Screen Builder Server.

Note:

The standard 24x80 terminal screen model (model 2) is supported for all GUI viewers. For the GUI viewers, no other terminal screen models are supported at this time.

With Entire Screen Builder's developer version (which includes the SDK), you can only connect one GUI viewer to the Entire Screen Builder Server. This is to enable reloading and testing of the rules during development.

The following topics are provided:

- Invoking the Windows Viewer
- Customizing the Web Viewer
- Customizing the Java Viewer
- Customizing the GUI Viewers for Open Systems
- Working with the GUI Viewers

Invoking the Windows Viewer

The Windows Viewer runs as a Windows application on a client workstation. This application contains the Entire Screen Builder ActiveX control. Therefore, it does not require a browser on the client workstation.

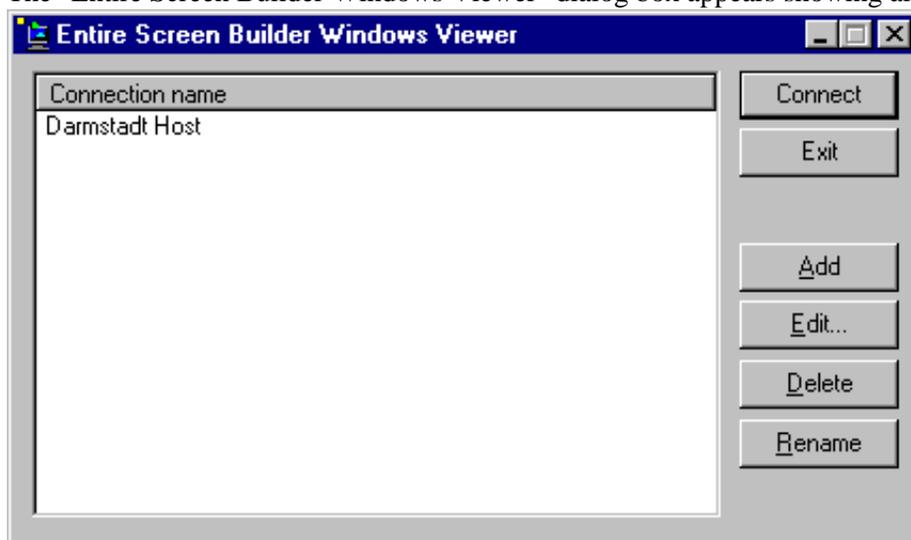
To make the Windows Viewer available to all users in your environment, the administrator has to copy the contents of the Entire Screen Builder folder "windows viewer" from the server to the client workstation.

The Windows Viewer can be invoked in different ways:

- The rules developer can invoke it from the SDK. See Working with Host Sessions in the SDK documentation for further information.
- All other users can invoke it as described below.

▶ To invoke the Windows Viewer

- Execute the file EWVViewer.exe in the Entire Screen Builder folder "windows viewer". The "Entire Screen Builder Windows Viewer" dialog box appears showing all defined connections.



The "Entire Screen Builder Windows Viewer" dialog box provides the following command buttons:

| | |
|----------------|--|
| Connect | Invoke the selected connection in the Windows Viewer. See Working with the GUI Viewers for further information. |
| Exit | Close the "Entire Screen Builder Windows Viewer" dialog box. |
| Add | Add a new connection. Specify a name of your choice for the new connection. After you have added the connection, you must edit it in order to define the client control properties. |
| Edit | Edit the selected connection. The "Client Control Properties" dialog box is shown. Specify at least the following: server address, server port and connection number. For detailed information, see the Overview of Client Control Properties in the User Exits documentation. |
| Delete | Delete the selected connection. |
| Rename | Rename the selected connection. |

Customizing the Web Viewer

The Entire Screen Builder Web Viewer runs in the browser of a client workstation. It runs in any browser which supports ActiveX controls (for example, Microsoft Internet Explorer Version 5).

This following information is provided below:

- General Information
 - HTML Page
-

General Information

After installation, the example HTML pages ExampleAdministratorPage.htm and ExampleEndUserPage.htm can be found in the Entire Screen Builder folder "web viewer". These pages need to be customized by the administrator.

To make the Web Viewer available to all users in your environment, copy the file NWWClientFull.cab and your customized HTML pages to the HTTP server. No installation is required on a client workstation. Inform all users of the URL that is to be used to open the end-user HTML page.

Note:

NWWClientFull.cab is a signed CAB file that is certified by the VeriSign company.

NWWClientFull-unsigned.cab can also be used if you want to use signing different from VeriSign.

When a browser supporting ActiveX controls opens the HTML page for the first time, it automatically downloads and installs the ActiveX control on the local PC. This control is downloaded and installed only once. Later when the same HTML page is opened again, the control is not downloaded again. The browser only downloads it once more, when the version number of the ActiveX control has changed.



Make sure that the security settings of your browser allow you to download and run ActiveX controls.

HTML Page

In addition to your script (e.g. JavaScript or VBScript), the HTML page must contain the following:

```
<object
id="cControl"
classid="CLSID:3BB4FE3B-7A37-11D3-A41E-0060080C03B3"
codebase="<URI>NWWClientFull.cab#Version=4,3,1,0"
align="baseline" border="0" width="750" height="575">
  <param name="BACKGROUND" value="192,192,192">
  <param name="EMBEDDED" value="1">
  <param name="SERVER" value="127.0.0.1">
  <param name="PORT" value="22367">
  <param name="CONNECTION" value="1">
  <param name="ANONYMOUS" value="1">
  <param name="REPOSITORY" value="ESB_Repository">
  <a name="control">Your browser doesn't support ActiveX controls </a>
</object>
```

Id Attribute

You can specify any value for the `id` attribute. This is the object name which is to be used in your script in order to communicate with the ActiveX control or to invoke methods of the ActiveX control. Example:

```
<script language="VBScript">
<!--
Sub window_onLoad()
    cControl.connect()
end sub
-->
</script>
```

Classid Attribute

You must not change the value for the `classid` attribute. This value identifies the ActiveX class.

Codebase Attribute

Substitute `<URI>` with the URI (Universal Resource Indicator) to the file `NWWClientFull.cab`. For example:

```
codebase="http://www.myserver/NSW/NWWClientFull.cab#Version=4,3,1,0"
```

The `NWWClientFull.cab` file contains all files, including the ActiveX control, for running the Entire Screen Builder Web Viewer on the client side. This file is downloaded and decompressed for the browser when the HTML page is opened.

Param Tag

With the `param` tag, you can set the values for a property of the control. The default values are used for those properties that have not been specified.

A detailed description for these properties can be found in the Overview of Client Control Properties which is part of the User Exits documentation.

See also: HTTP Tunneling in the Installation section.

Other Attributes

The attributes `align`, `border`, `width` and `height` define the object's appearance in the browser. In the above code, the object is shown without a border. Its width is 750 pixels and its height is 575 pixels.

You can use all attributes that are supported for the `OBJECT` element. See your HTML documentation for further information.

Customizing the Java Viewer

The Entire Screen Builder Java Viewer runs in the browser of a client workstation. It runs in Netscape Navigator Version 4.7.3. A prerequisite is that the Java Sun plugin 1.2.2 is installed on each workstation on which the Java Viewer is to be used. This is provided in the "Redist\SunJava122" folder of the Entire Screen Builder CD-ROM.

This following information is provided below:

- General Information
 - HTML Page
-

General Information

After installation, the example HTML page ExampleJavaEndUserPage.htm can be found in the Entire Screen Builder folder "java viewer". This page needs to be customized by the administrator. This folder also contains the page NoJava122.htm which will appear when the Java Sun plugin has not been installed.

To make the Java Viewer available to all users in your environment, copy the file NWWClient.jar, your customized HTML page and the file NoJava122.htm to the HTTP server. No installation is required on a client workstation. Inform all users of the URL that is to be used to open the HTML page.

When a browser opens the HTML page, it automatically downloads and installs the Java applet on the local PC. This applet is downloaded each time the HTML page is opened.



Make sure that the security settings of your browser allow you to download and run Java applets.

HTML Page

The HTML page must contain the following:

```
<embed type="application/x-java-applet;version=1.2.2"
  align="baseline" width="800" height="600"
  code="NWWClient.class" archive="NWWClient.jar"
  pluginspage="./NoJava122.htm"
  BACKGROUND="192,192,192"
  EMBEDDED="1"
  SERVER="127.0.0.1"
  PORT="22367"
  CONNECTION="1"
  ANONYMOUS="1"
  REPOSITORY="ESB_Repository"
  SECURE="0"
</embed>
```

Code Attribute

You must not change the value for the `code` attribute. This value contains the first class of the Java applet that is loaded into the browser.

Archive Attribute

You must not change the value for this attribute.

The `NWWClient.jar` file contains all classes for running the Entire Screen Builder Java Viewer in your browser. This file will be downloaded for the browser when the HTML page is opened.

Pluginspage Attribute

The page that is to be shown when the Java 1.2.2 runtime environment is not found on the PC.

Param Tag

With the `param` tag, you can set the values for a property of the control. The default values are used for those properties that have not been specified.

A detailed description for these properties can be found in the Overview of Client Control Properties which is part of the User Exits documentation.

The following applies to the `SECURE` property: if you want to use secure HTTP (SSL), the Java™ Secure Socket Extension (JSSE) is also required. You can download it from <http://java.sun.com/products/jsse/>.

See also: HTTP Tunneling in the Installation section.

Other Attributes

The attributes `align`, `width` and `height` define the object's appearance in the browser. In the above code, the object is shown without a border. Its width is 800 pixels and its height is 600 pixels.

Customizing the GUI Viewers for Open Systems

When logging on to UNIX and OpenVMS hosts, the following properties control the way how the logon credentials are picked up:

Force Open Systems Logon

For the Web Viewer and Java Viewer, this property is set in the HTML page. See the sections Customizing the Web Viewer and Customizing the Java Viewer.

For the Windows Viewer, this property is set in the "Client Control Properties" dialog box. See Defining the Client Control Properties in the SDK documentation.

This property can also be set with an Entire Screen Builder user exit. See Overview of Client Control Properties in the User Exits documentation.

Use logon credentials above

This property is set when defining host sessions using the System Management Hub. See Communication Properties for Open Systems in the Administration documentation.

The logon credentials (user ID and password) to be used are specified in the same dialog as the property "Use logon credentials above".

Values from client

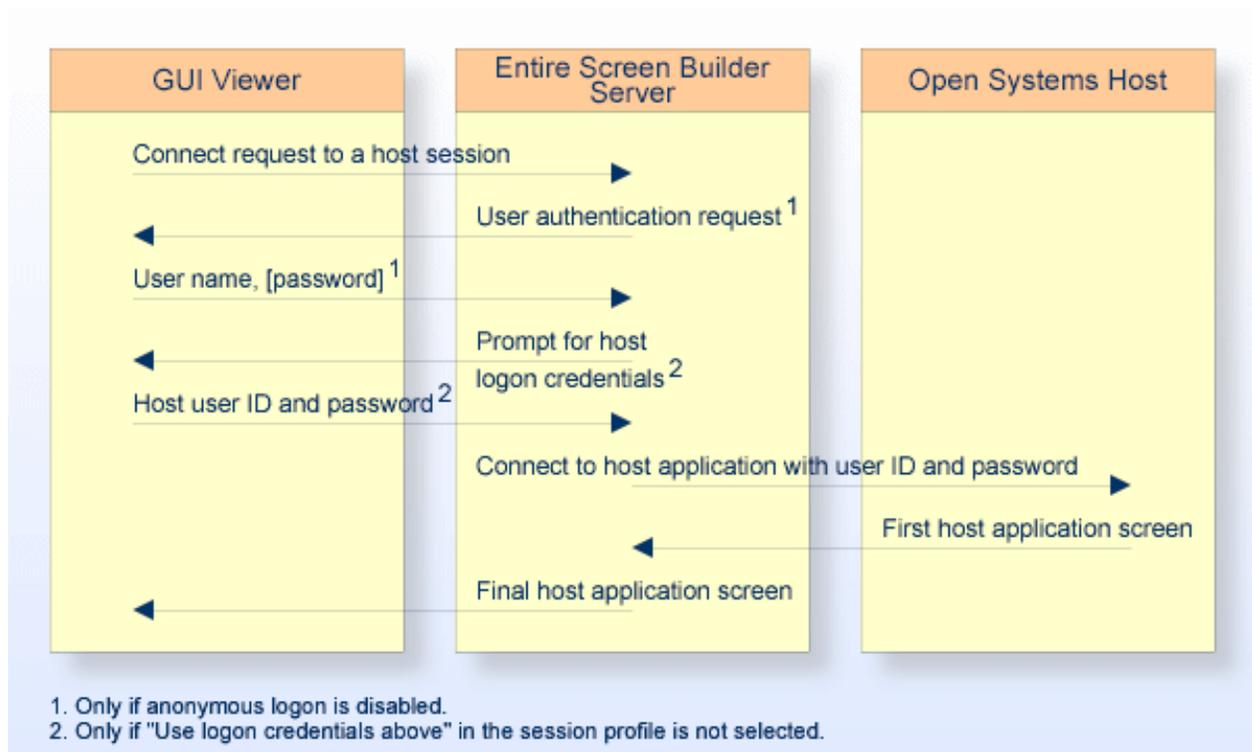
These are the logon credentials (user ID and password) that the user enters in the "Open Systems User Authentication" dialog box. The "Open Systems User Authentication" dialog box is only shown if the property "Force Open Systems Logon" has been enabled.

The following table shows the possible combinations of the above properties.

| Force Open Systems Logon | Use logon credentials above | Values from client | Action |
|---------------------------------|------------------------------------|---------------------------|-----------------------------------|
| On | Off | Filled | Send values from client. |
| On | Off | Empty | Send empty string. |
| On | On | Filled | Send values from client. |
| On | On | Empty | Send values from session profile. |
| Off | On | Not applicable | Send values from session profile. |
| Off | Off | Not applicable | Send empty string. |

Two different types of logon dialog box may appear: one for specifying the Open Systems logon credentials (see above) and, before that, another for specifying the user name as defined with the System Management Hub (when anonymous logon is not enabled); see Users in the Administration documentation.

The following graphic explains the user authentication process:



Working with the GUI Viewers

The information in this section applies to the Web Viewer, Java Viewer and Windows Viewer.

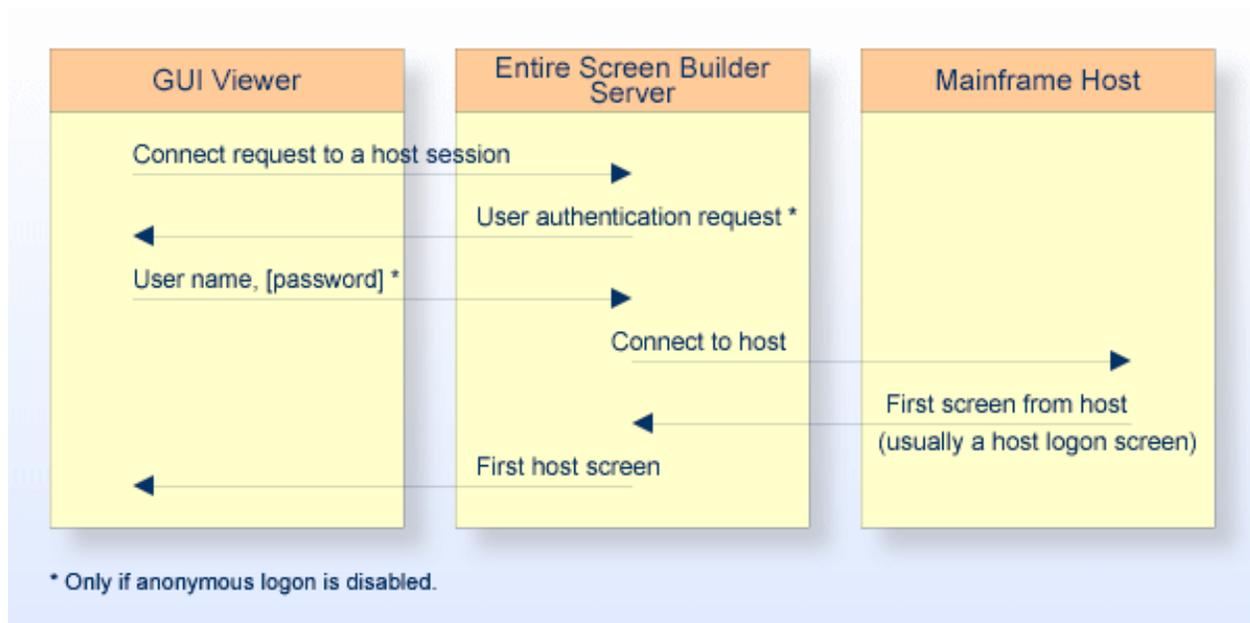
The following topics are covered below:

- User Authentication
- Elements of the Viewer Window
- Reloading the Rules
- Printing the Contents of a Host Screen
- Transferring Data Using the Clipboard
- Invoking Help for an Application
- Terminating a Host Session

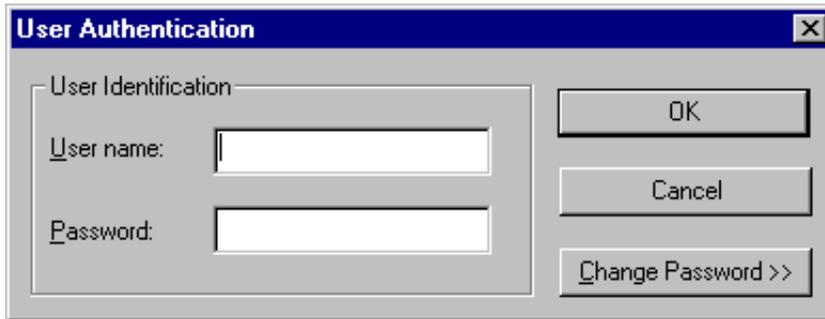
User Authentication

The Web Viewer and the Java Viewer run in a browser. Ask your administrator which URL to use to open the HTML page which connects you to a specific viewer. The Windows Viewer runs as a Windows application, see Invoking the Windows Viewer.

The following graphic explains the user authentication process for a mainframe host (the user authentication process for an Open Systems host is explained in Customizing the GUI Viewers for Open Systems):



When a user name is required for connecting to the Entire Screen Builder Server, the "User Authentication" dialog box appears.



The administrator defines whether this dialog is to appear or not. It does not appear if anonymous logon has been defined.

▶ **To logon to the Entire Screen Builder Server if user authentication is required**

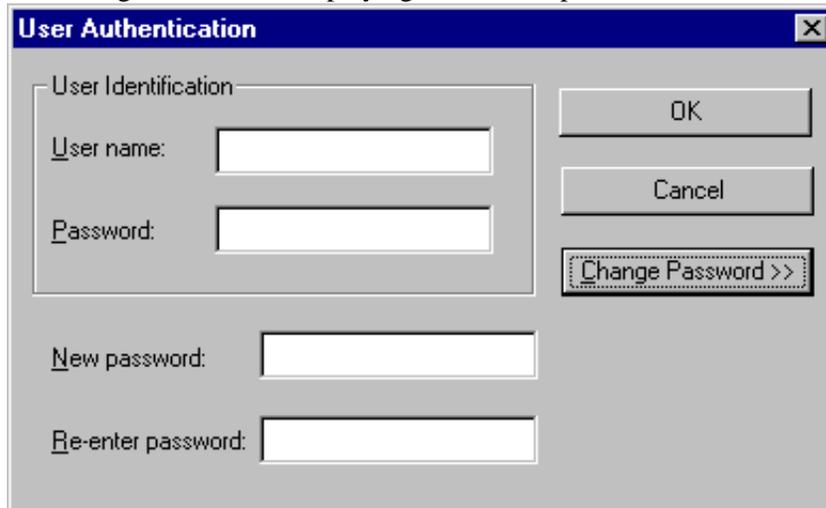
1. Enter your user name as defined on the Entire Screen Builder Server.
2. Enter your password, if required.
3. Choose the **OK** button.

You are now connected to the host session, with the rights that have been defined for you.

▶ **To change your password**

1. Enter your user name as defined on the Entire Screen Builder Server.
2. Enter your password.
3. Choose the **Change Password** button.

The dialog box unfolds, displaying additional options.



4. Enter the new password.
5. Enter the new password once more.
6. Choose the **OK** button.

The password is changed and you are connected to the host session, with the rights that have been defined for you.

Elements of the Viewer Window

The following topics are covered below:

- Menus
- PF Keys Toolbar
- Status Bar

Menus

For the Web Viewer and Java Viewer, the developer can define whether the dialog is shown inside the HTML page (embedded) or not. When it is embedded, you can click the right mouse button to invoke a context menu. When is it not embedded, a menu bar is shown instead.

For the Web Viewer and Java Viewer, the developer can also define that no context menus (also called popup menus) are shown at all.

The following menus are available:

| | |
|--------------------|--|
| File | Using the commands in this menu, you can print the current host screen and terminate the host session. |
| Edit | Using the commands in this menu, you can copy or cut information and paste it in a different location. |
| View | Using the commands in this menu, you can show or hide the status bar or PF key toolbar. |
| Utilities | Using the command in this menu, you can execute and cancel script files. See the Script Files documentation for further information. |
| Options | Using the command in this menu, you can define that the cursor is automatically positioned to the next edit control when the current edit control has completely been filled (autoskip). |
| Development | Using the command in this menu, you can reload the latest rules. |
| Help | When you choose About from this menu, information about Entire Screen Builder is shown. When you choose Software AG on the Web from this menu, you can check the Software AG web site for the latest information on products or events. When you choose Application Help from this menu, you can invoke help for the current application if this has been defined by the developer. |

PF Keys Toolbar

For session types Telnet TN3270 and NWSAA, the system function keys PA1, PA2, PA3, CLR, ATT, RST and SYS are always shown in the PF keys toolbar. They are not shown for the session types BS2000 and Open Systems.

When the Function Keys rule has been enabled, additional toolbar buttons are shown for the function keys detected in the current screen.

When the Function Keys Toolbar rule has been used to define images for the different function keys, these images are shown on the toolbar buttons. When an image has not been defined, a default image is shown.

When a tooltip has been defined, this text is shown when you move the mouse pointer over the toolbar button.



Example:

The function key PF1 has been detected. The default image and tooltip are shown.

▶ To switch the PF keys toolbar display on and off

- From the **View** menu, choose **PF Keys Toolbar**.
When the PF keys toolbar is displayed in the viewer, a check mark is shown next to this menu command.

Status Bar

Depending on the transformation rules that have been defined, information from the character screen (such as message line or date) can be shown in the status bar.

The right side of the status bar shows the following information:

- **INS** or **OVR**
You can click this information to toggle the status. This corresponds to pressing the INS key. When the overwrite function is active, **OVR** is shown in the status bar and existing text is overwritten as you type. This function is helpful, if an edit control contains filler characters.
- **SKIP** or **STAY**
You can click this information to toggle the status. This corresponds to choosing **Autoskip** from the **Options** menu. When the autoskip function is active, **SKIP** is shown in the status bar and the cursor is automatically positioned to the next edit control when the current edit control has completely been filled.

▶ To switch the status bar display on and off

- From the **View** menu, choose **Status Bar**.
When the status bar is displayed in the viewer, a check mark is shown next to this menu command.

Reloading the Rules

This option is only available when you have installed a development version of Entire Screen Builder.

When the viewer is started, the latest rules are always applied.

You can also reload the latest rules when the viewer is already active. This is helpful, if you have defined new rules using the SDK and now want to view how these rules are applied.

To reload the rules

- From the **Development** menu, choose **Reload Rules**.

Printing the Contents of a Host Screen

You can print the contents of the current screen on a printer that is defined under Windows. The printout corresponds to the actual screen as coming from the host. The transformation rules are not applied.

Note:

If you want to print the dialog with all transformation rules applied, you can use, for example, an application that is able to capture images from your computer screen.

To print the screen contents

1. From the **File** menu, choose **Print**.
The "Print" dialog box appears.
2. Choose the **OK** button to print the current screen.

Transferring Data Using the Clipboard

This information only applies to the Web Viewer and Windows Viewer. It does not apply to the Java Viewer.

Using the commands from the **Edit** menu, you can copy or cut a host screen (or part of it) and paste it somewhere else (for example, in another host screen or in a PC application such as Microsoft Word). You can also copy or cut text from a PC application and paste it in a host screen. Cut or copied data is stored on the Windows clipboard.

You must first select the desired text before you can use the **Cut** or **Copy** command.

The following applies for a host screen:

- You can only cut text from unprotected fields. If protected fields have been selected, they are copied.
- When you use the **Cut** or **Copy** command, the content of the clipboard is deleted and replaced with the new text.
- When you then choose the **Paste** command, the content of the clipboard is inserted at cursor position.
- You can only paste text into unprotected fields. If the field is not long enough, it is filled up to its maximum size. Example: the text to be pasted is DISPLAY and the cursor is located in a two character long input field. In this case, only the first two characters (DI) are pasted into the input field.

Unless indicated otherwise, the left mouse button is always used. The **right** mouse button is used to select the **Edit** menu commands from a context menu.

To select part of a host screen

1. Move the mouse pointer to the beginning of the text you want to select.
2. Press and hold down the left mouse button.
3. Drag the mouse until all desired text is selected.
4. Release the mouse button.
You can now cut or copy the selected text.

To cancel the selection

- Click another screen position.
The existing selection is canceled.

To delete the selection in an unprotected field

- From the **Edit** menu, choose **Clear**.
Or press DEL.
The selection is deleted. It is not transferred to the clipboard.

▶ **To cut the selection and transfer it to the clipboard**

- From the **Edit** menu, choose **Cut**.
Or press CTRL+X.
The selection is deleted and transferred to the clipboard. Exception: protected fields are not deleted; they are copied.

▶ **To copy the selection to the clipboard**

- From the **Edit** menu, choose **Copy**.
Or press CTRL+C.

▶ **To paste the content of the clipboard into a host screen**

1. Move the cursor to the position at which the text is to be inserted.
2. From the **Edit** menu, choose **Paste**.
Or press CTRL+V.
The content of the clipboard is inserted at cursor position.

▶ **To undo your last action**

- From the **Edit** menu, choose **Undo**.
Or press CTRL+Z.

Invoking Help for an Application

When the developer has created a help file for an application, the user can invoke it when viewing the application.

▶ **To invoke help for the current application**

- From the **Help** menu, choose **Application Help**.
When a help file is found, it is shown.

Terminating a Host Session

When you quit the viewer, the host session is automatically disconnected. In addition, the **View** menu settings are stored in the local registry for the Web Viewer and the Windows Viewer. They are not stored for the Java Viewer.

▶ **To terminate the host session**

- From the **File** menu, choose **Disconnect**.
Or choose **Close** from the Control menu.
Or click the corresponding standard button in the title bar.