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

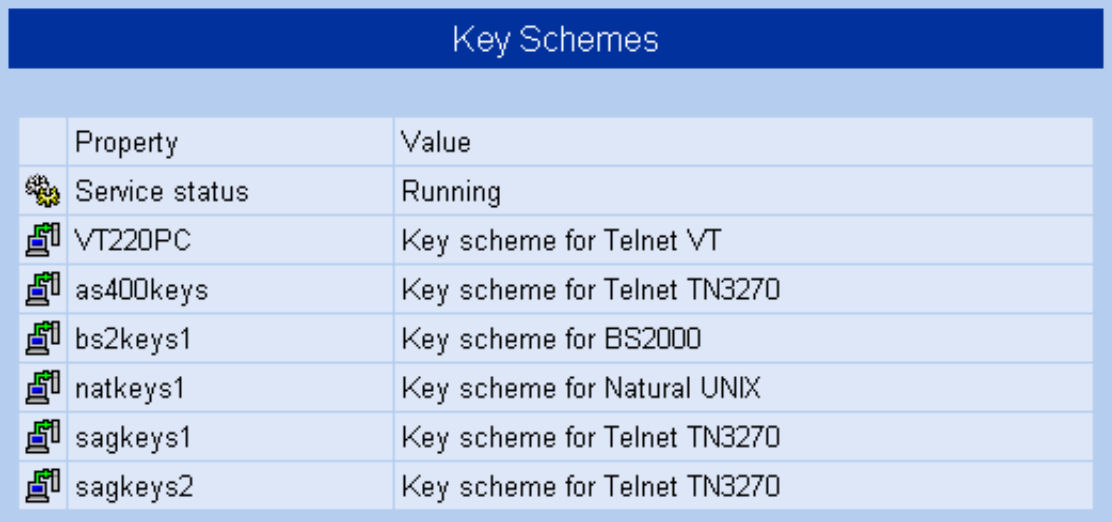
Predefined Key Schemes

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.



Commands

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

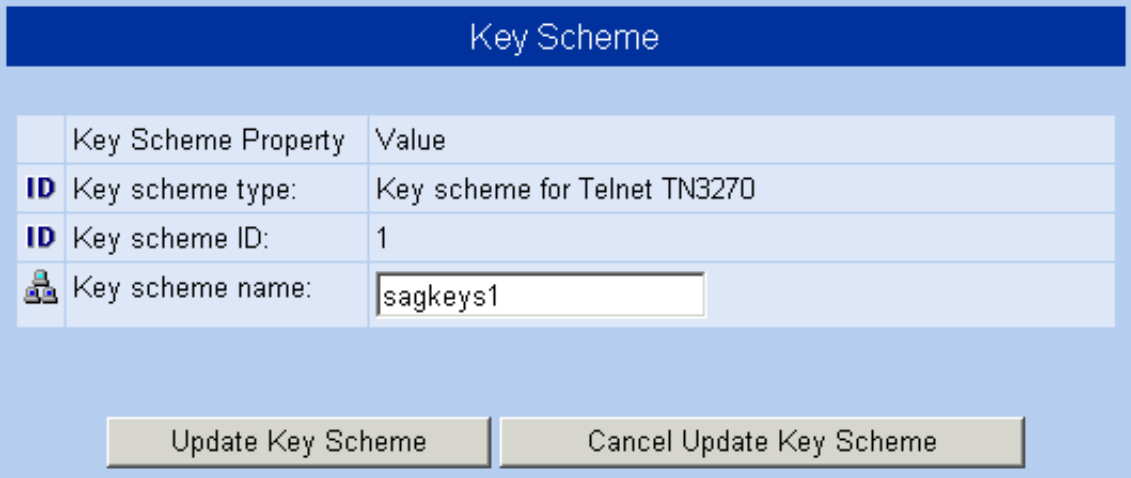
Add Key Scheme	Add a key scheme. See *Adding a Key Scheme* for detailed information.

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.

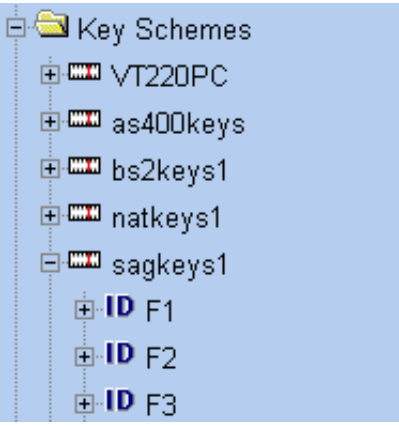
Information About a Key Scheme

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

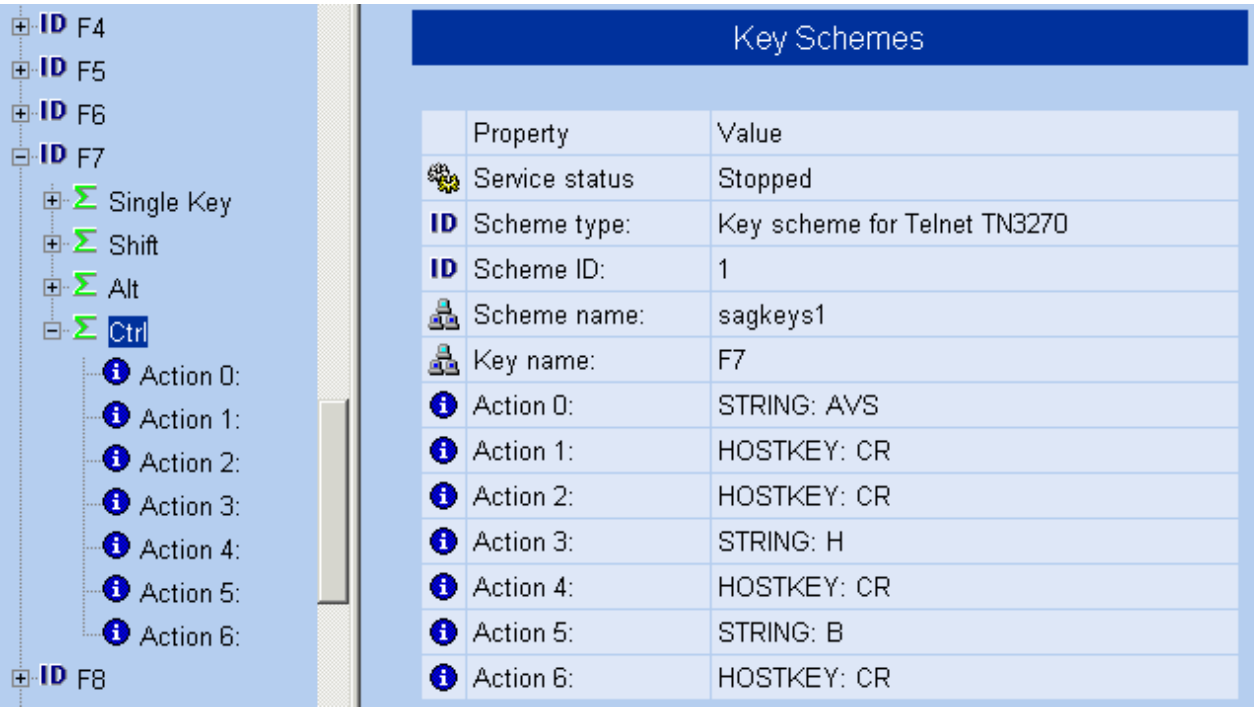


When the Entire Screen Builder Server has been stopped, you can rename the key scheme.

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:



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 *Adding Keys to a Key Scheme*.
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 *Adding Actions to a Key Combination*.
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:

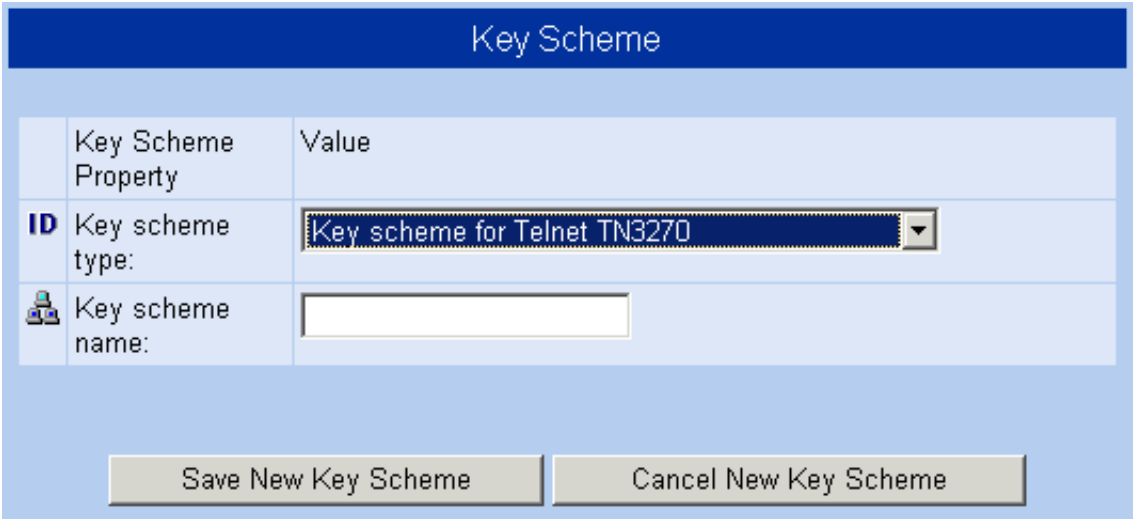
Insert Key Property	Insert a new key or string (action) to be sent to the host below the selected action. See *Adding Actions to a Key Combination*.
Delete Key Property	Delete the selected key or string (action). The key or string is deleted immediately. You are not asked to confirm the deletion.

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.



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.

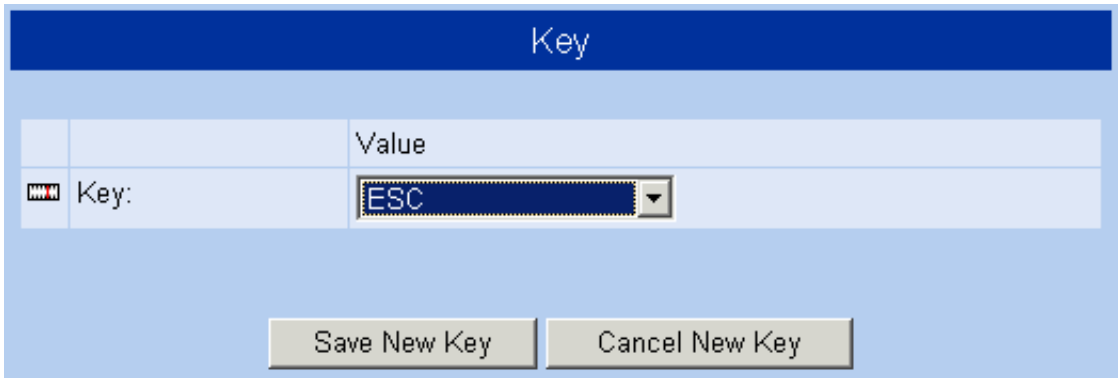
Adding Keys to a Key Scheme

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:

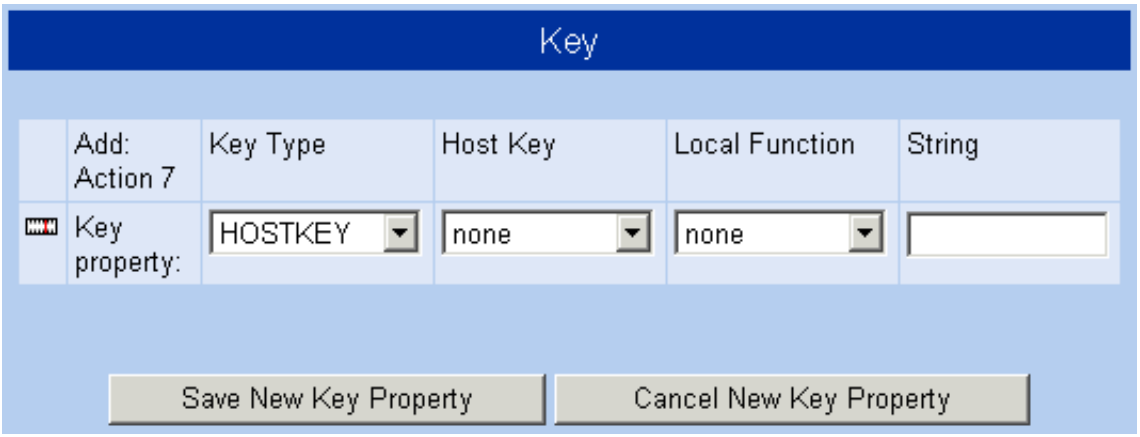
- **Add Key Property**
  Available when a key combination (for example, "Ctrl") has been selected. This adds a new action below the last defined action in the list.

- **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:



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
DEVCNCL
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 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.