



z/Scope Anywhere

User's guide

Table of Contents

z/Scope	7
Introduction	8
Architecture	8
Getting to know z/Scope Anywhere	12
1 Installing z/Scope Anywhere	13
2 Starting the Application	17
3 The User Interface	19
Start Page	20
Connection Buttons	21
Toolbar	22
Connection View	23
Toolbar	24
Open Sessions List	26
Navigation	27
4 Establishing your first connection	28
Features	30
1 Connections	31
Setting up a private connection	32
Setting up a UNIX/VT/SSH Connection	34
SSH Connection	37
Setting up an IBM Mainframe or AS/400 Connection	39
Customizing a connection	42
Editing a Unix/VT connection	45
General	46
Host	47
Backup	48
Display	50
Socks	51
SSL	53
SSH	54
Preferences	55
Options	56
Char Table	57
HotSpots	58
Editing an IBM Mainframe or AS/400 Connection	60
General	60
Host	61
Backup	62
Display	64
Socks	65
SSL	67
Preferences	68
Char Table	69
HotSpots	70
Keypads	71
Connecting	72

Deleting a private connection	74
2 HotSpots.....	76
Enabling HotSpots	77
Using HotSpots	78
3 File Transfer.....	79
File Transfer Manager	80
Queue	81
FTP	83
IND\$FILE	87
KERMIT	90
XMODEM	92
YMODEM	94
ZMODEM	97
Files	100
History	102
Downloading	103
Uploading	105
4 Keyboard Support.....	107
Selecting the Keyboard	108
5 Keypads.....	109
Enabling Keypads	110
Using Keypads	112
6 Macros.....	113
Creating a Macro	114
Using Macros	115
Managing Macros	116
7 Screen Styles.....	118
Using Screen Styles	119
8 Admin Control Panel.....	120
Connections Management	121
Log & Statistics	124
9 Security and Encryption.....	127
Enabling SSL	128
Enabling SSH	129
10 Authentication modes.....	130
Mobile devices	131
1 Virtual Keyboards.....	132
2 Gestures.....	134
3 App Store Application.....	136
Advanced Settings	137
1 Shared Connections.....	139
Creating/Editing Shared Connections	140
Unix/VT Connections	142
General.....	142
Host	144
Backup	145
Display	147

Socks	149
SSL	150
SSH	151
Preferences	153
Options	154
HotSpots.....	156
Mainframe/AS400 Connections	158
General.....	158
Host	159
Backup	161
Display	163
Socks	164
SSL	166
Preferences	167
Char Table.....	168
HotSpots.....	170
Keypads.....	170
Deleting a Connection	172
2 Screen Styles.....	173
Creating/Editing Screen Styles	174
General.....	175
Cursor	176
Field Options	178
Color Mapping.....	180
5250 Attributes	181
VT Defaults.....	182
Deleting Screen Styles	184
3 Hotspots.....	185
Creating/Editing a HotSpot	186
General.....	187
Rules	188
Style	192
Deleting a HotSpot	194
4 Keyboard.....	195
Base	196
Host	197
Edition	199
Char	201
Custom	203
Keyboards	206
z/Scope Keyboard Map.....	207
IBM Keyboard Map.....	209
EXTRA Keyboard Map.....	212
IRMA Keyboard Map.....	215
RUMBA Keyboard Map.....	218
5 Macros.....	221
Editing Macros	223
Deleting Macros	227
6 Keypads.....	228
Creating/Editing a Keypad	229
Deleting a Keypad	232

7 Environment.....	233
Edit	234
Printer	235
Misc	236
Debug	239
Config Setup	241
8 Server Settings.....	241
Communication	243
Profiles	246
OAuth/2	248
OAuth/2 Users	250
Permissions	252
Web Auth Provider	254
Migration	255
Licenses	257
9 Gateway Manager.....	260
10 Configure HTTP Error Responses.....	261
11 Managing the SSL Certificate.....	264
The Default Embedded Certificate	265
A Self-Signed Certificate	266
A CA Certificate	267
12 Custom Settings.....	269
The customSettings Configuration Object	269
Changing Permissions by Using Custom Settings	269
Custom Settings Example	270
Scaling and Load Balancing	272
1 Scaling and Load Balancing Configurations.....	272
2 Installing Components.....	274
3 Configuring a Load Balancing Scenario.....	276
Appendix A - Character Conversion Tables	279
1 Internal Conversion Tables.....	280
2 Using an External Character Table.....	283
Appendix B - Regular Expressions	285
Appendix C - Google Account Integration	287
1 Google Client ID for web applications.....	289
Appendix D - Tailoring the interface	0
Appendix E - Programming Reference for Macros	293
1 Macro Script File Structure.....	295
2 Methods and Properties.....	297
cursorPos	298
type	299
typeV	301
setField	302
setFieldV	303

pressAndWait	304
waitForField	305
waitForNewScreen	306
addNavigationPath	307
Appendix F - External Authentication	308
1 Apikey.....	309
2 Diffie Hellman Key Exchange	310
3 Building the Query String.....	312
4 Using z/Scope Anywhere In-Memory Dictionary.....	314
5 Integrating a Login Macro.....	315
6 Demo.....	317
7 Web Authentication Provider.....	319
Enabling z/Scope Anywhere ADS authentication	320
Enabling and Configuring the External Web Authentication Provider	321
How to Use the External Web Authentication Provider	322
How to Integrate your Custom Web Authentication Provider	323
Purchasing z/Scope Anywhere	325
1 Licensing Information.....	326
2 Registering z/Scope Anywhere Trial Version.....	326
3 How to place an order.....	328
Obtaining Technical Support	329

1 z/Scope



z/Scope Anywhere

User's guide

2 Introduction

z/Scope Anywhere is a Web-to-Host Terminal Emulator for accessing to IBM Mainframes, AS/400 and Unix systems. It is an HTML5 based product that allows users to access their Hosts Emulation from any browser or device.

Highlights:

- ✓ Browser-based Terminal Emulator client
- ✓ Cross-browser, cross-operating system and cross-device
- ✓ Multiple protocols: TN3270E, TN5250E and VT100/VT220/VT320/VT420/SSH1/SSH2 Telnet Servers
- ✓ Multi-session support: run several sessions on the same client instance
- ✓ File Transfer: exchange files between the mainframe and the web client
- ✓ Touch and virtual keyboard enabled
- ✓ No client installations (Pure HTML/Javascript client)
- ✓ SSL encrypted communication
- ✓ Secure SSL encrypted communication
- ✓ Admin Control Panel
- ✓ Load Balancing for a better performance on large deployments.
- ✓ Real-time Statistics

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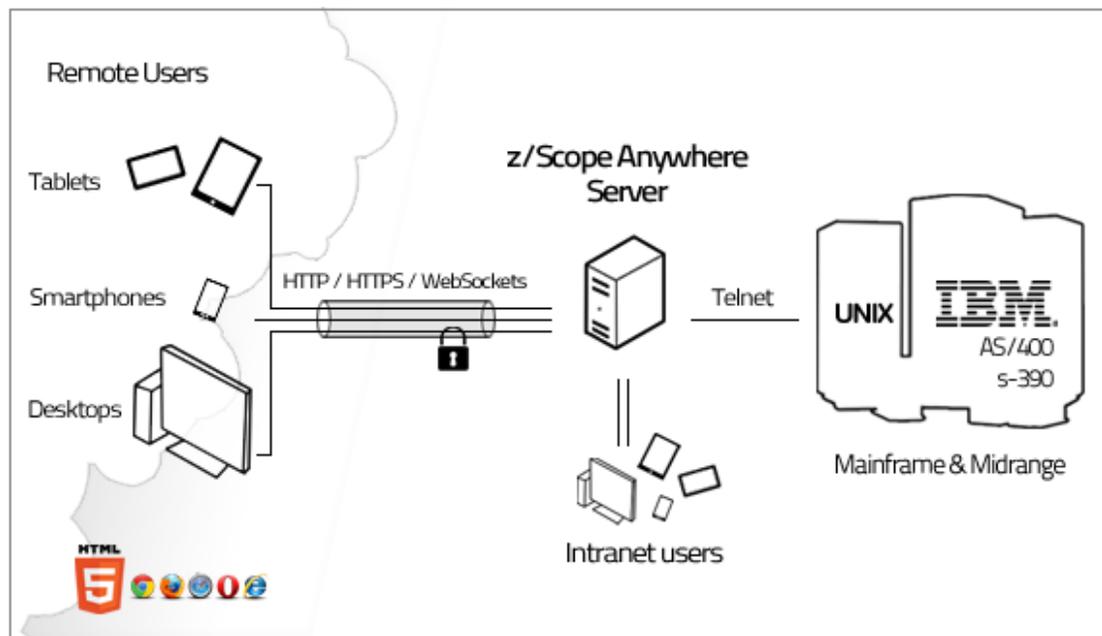
3 Architecture

Z/Scope Anywhere is based on a 3-tier architecture composed by:

The client:
HTML5-capable Web Browser

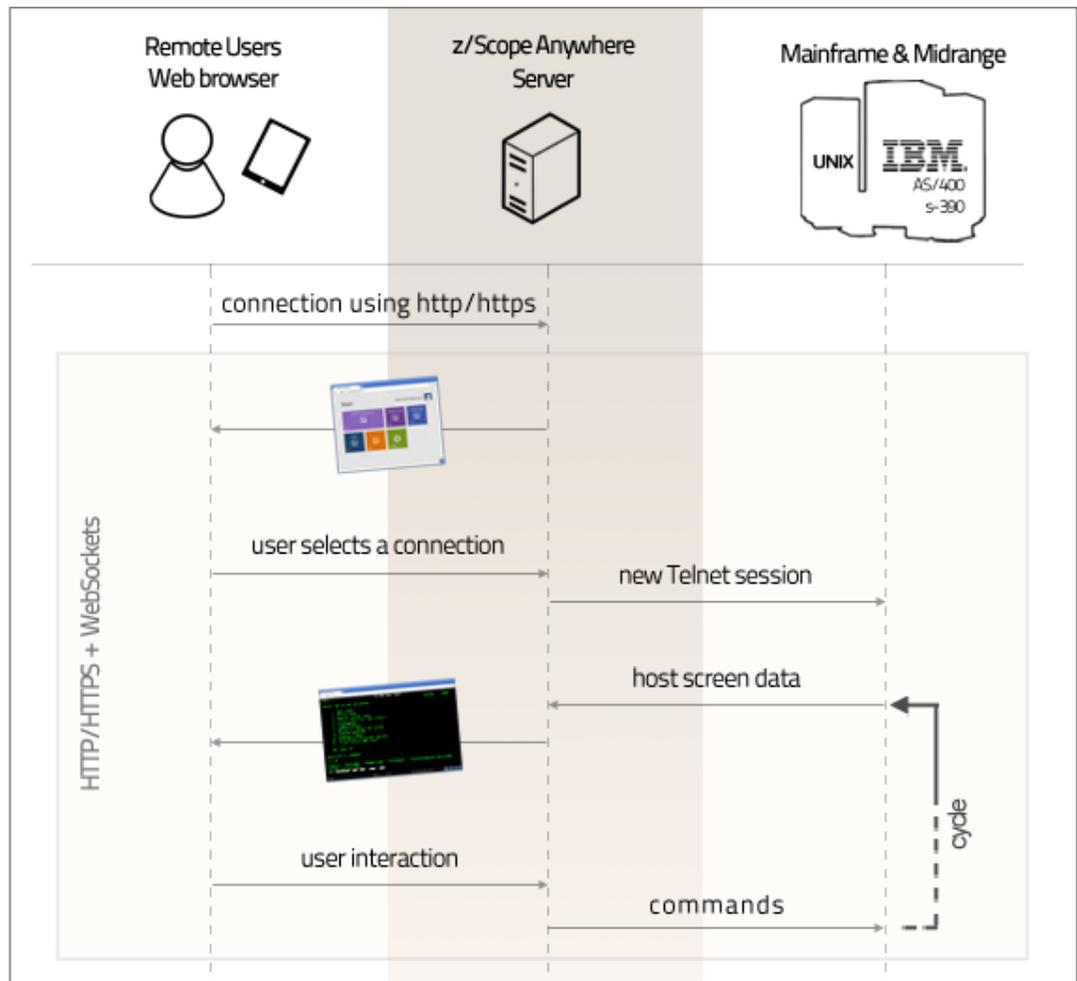
The server:
z/Scope Anywhere Server

The host:
IBM Mainframe, Midrange or Unix system.



How it works

The remote user connects to the z/Scope Anywhere server using any HTML5 compliant browser. Once the connection is established the server will start interpreting commands to the specific host/protocol and sends back the results after converting the updated screens to native web structures.



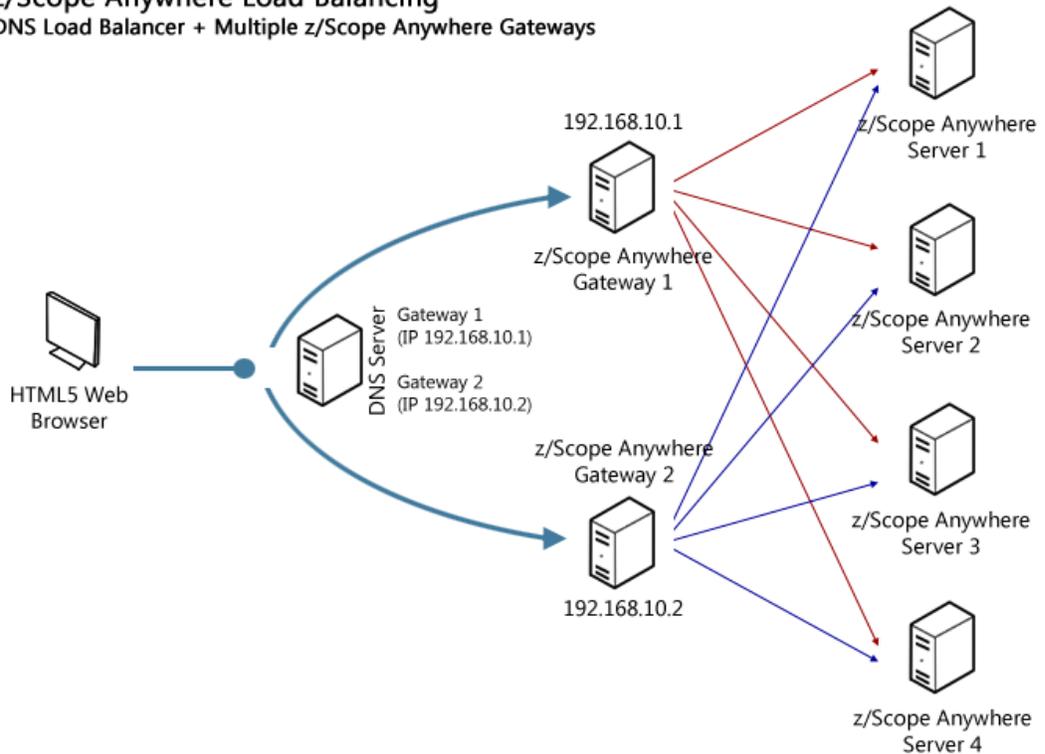
Load Balancing Architectures for z/Scope Anywhere

z/Scope Anywhere can be configured in two different load balancing architectures:

- z/Scope Anywhere Load Balancer
- z/Scope Anywhere Load Balancer with a DNS for multiple brokers

z/Scope Anywhere Load Balancing

DNS Load Balancer + Multiple z/Scope Anywhere Gateways



[Read more about load balancing.](#)

Requirements

Client

- OS independent
- HTML5-compliant Web Browser

Server

- Windows XP 32-bit / 64-bit
- Windows Vista 32-bit / 64-bit
- Windows 7 32-bit / 64-bit
- Windows Server 2003 32-bit / 64-bit
- Windows Server 2008 32-bit / 64-bit
- Windows Server 2012 32-bit / 64-bit

Host

- IBM Mainframe
- AS/400
- Unix

4 Getting to know z/Scope Anywhere

This section is intended to provide first-time users an initial approach to the basic functionality of z/Scope Anywhere.

Learn how to:

- [Install z/Scope Anywhere](#)
- [Start the application](#)

Discover z/Scope Anywhere:

- [The User Interface](#)
- [Establishing a connection](#)

4.1 Installing z/Scope Anywhere

Z/Scope Anywhere can be installed very easily:

1. Download the installer from one of the links below:

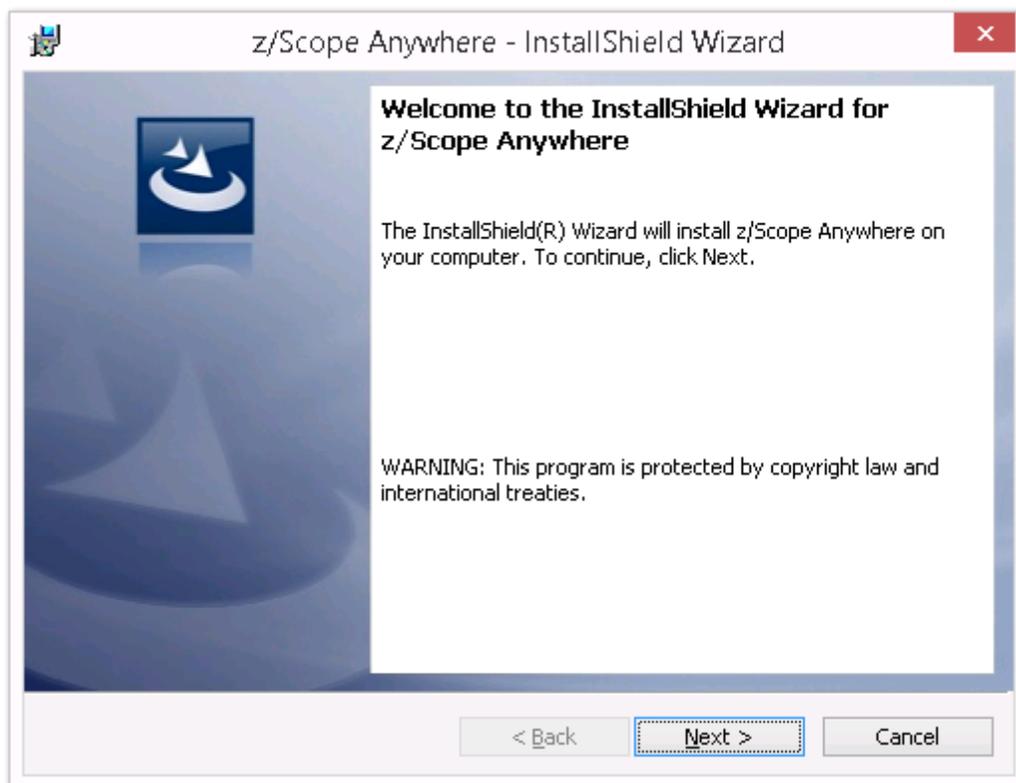
Exe File

<http://www.cybelesoft.com/downloads/zawsetup.exe>

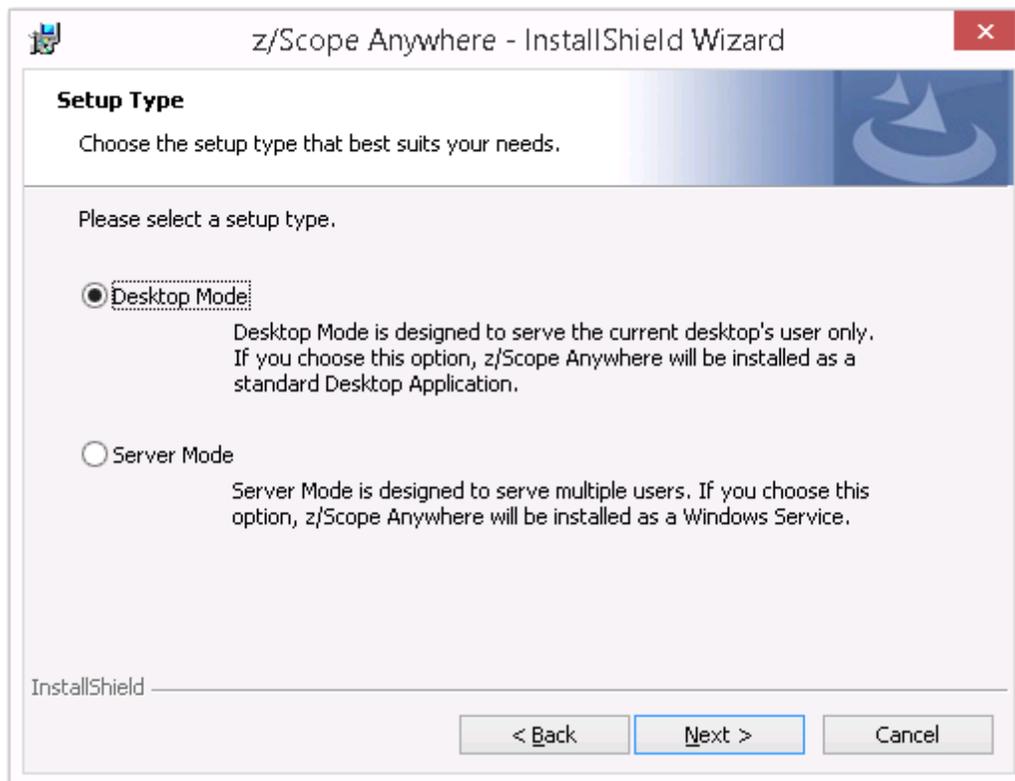
Zip File

<http://www.cybelesoft.com/downloads/zawinstall.msi>

2. Execute the installer on the target machine.



3. Select the setup type:



Desktop Mode

Designed for serving the current desktop user only. If you choose this mode, z/Scope Anywhere will be installed as a standalone application. On this mode, there will be only one personal preference corresponding to the logged user.

Server Mode

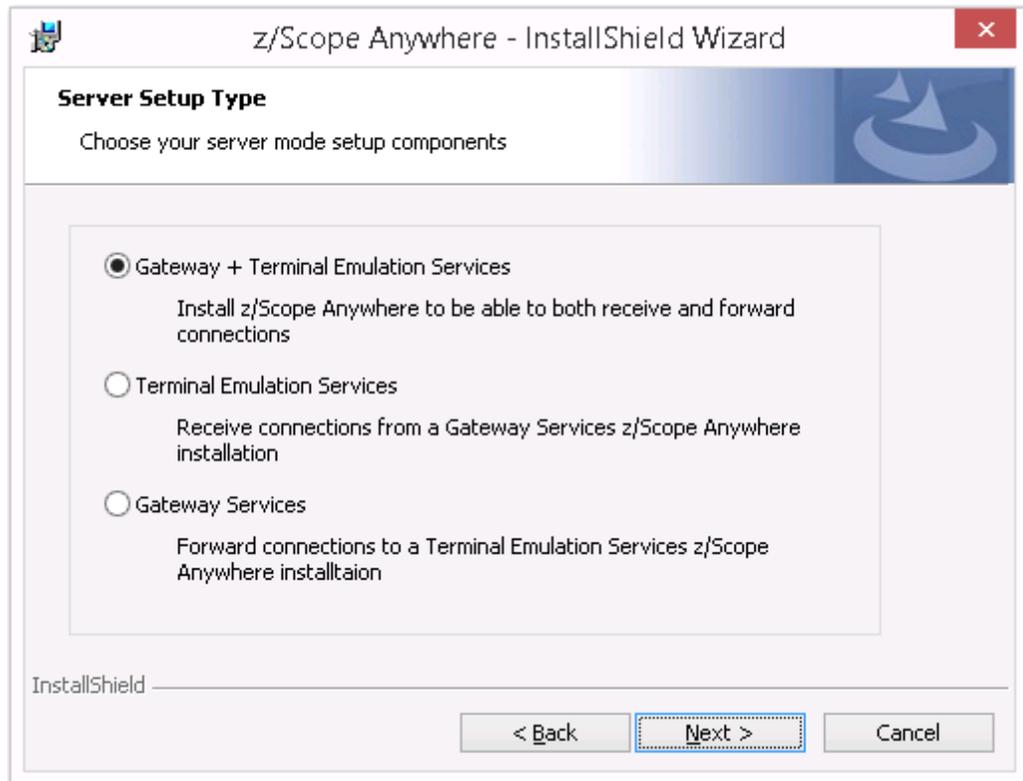
Designed for serving remote users. If you choose this mode, z/Scope Anywhere will be installed as a Windows Service and will manage remote users accessing their connections.

This mode saves the users preferences separately and allows every user to have its own saved environment.

The [Google Account Authentication mode](#) will be available only for this installation mode.

Also, choose this mode if you want to use [Load Balancing](#).

If you choose Server Mode, you will be presented with the following screen:



Gateway + Terminal Emulation Services

Choose this option for a server mode standalone installation. Both a Gateway and a Server are installed in the same computer. Also this installation can work together with other z/Scope Anywhere Terminal Emulation Services and Gateway installations in a [Load Balancing architecture](#).

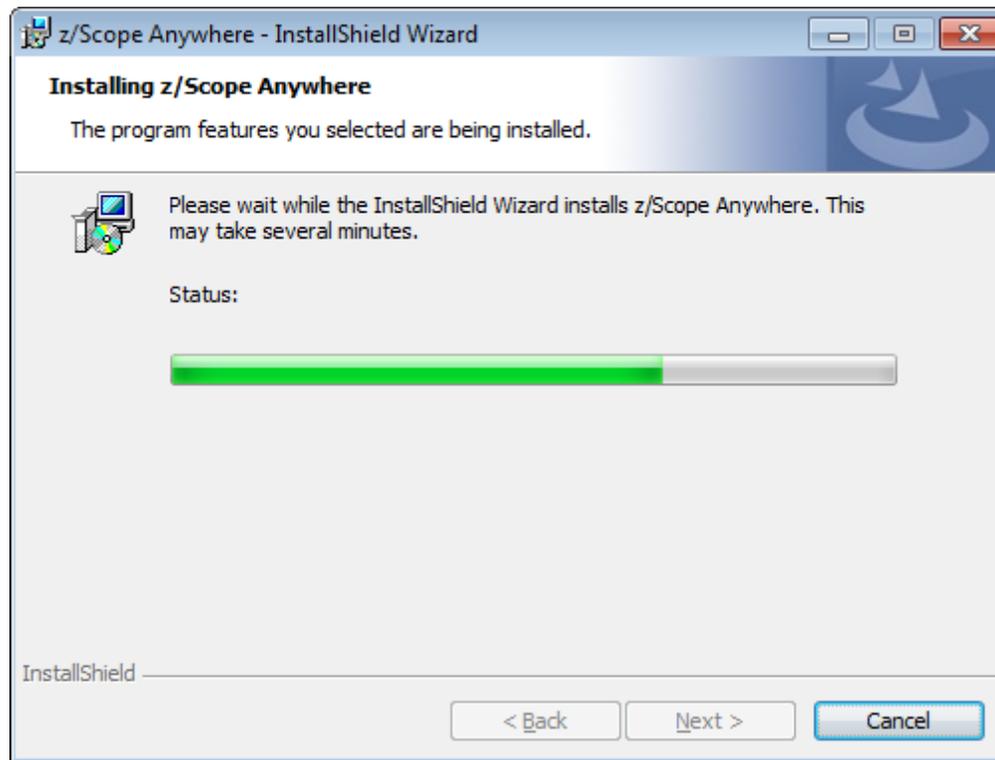
Terminal Emulation Services

The Terminal Emulation Services installation is only used when you have a [Load Balancing architecture](#).

Gateway Services

The Gateway Services installation is only used when you have a [Load Balancing architecture](#).

4. Press Next and wait for the installation process to finish. When it is done, press the "Finish" button.



Read the next topic: learn how to [Start the Application](#) for both of the installation modes.

4.2 Starting the Application

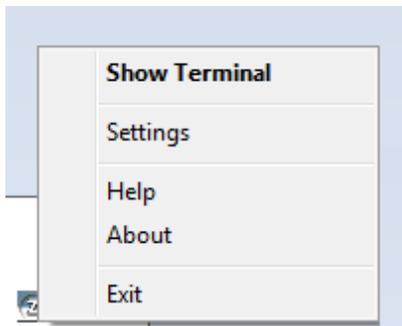
The application will be available under different menus, depending on the mode you have selected on the installation:

Desktop Mode

If the application is already started you should look for the z/Scope icon on the tray icon bar and click on it.

Otherwise you will should open the application first on the Start Menu, by clicking on the "z/Scope Anywhere" menu item.

Tray icon menu



Show Terminal

Opens the z/Scope web user interface on the machine default web browser. Another possible way to open the web interface is by opening a web browser and typing in the [z/Scope Anywhere address](#).

Settings

It will take you to the Configuration Manager. There you will be able to configure most of the application features and settings.

Help

Opens the on line z/Scope help.

About

The about screen will inform you the version of z/Scope anywhere you have installed on your machine.

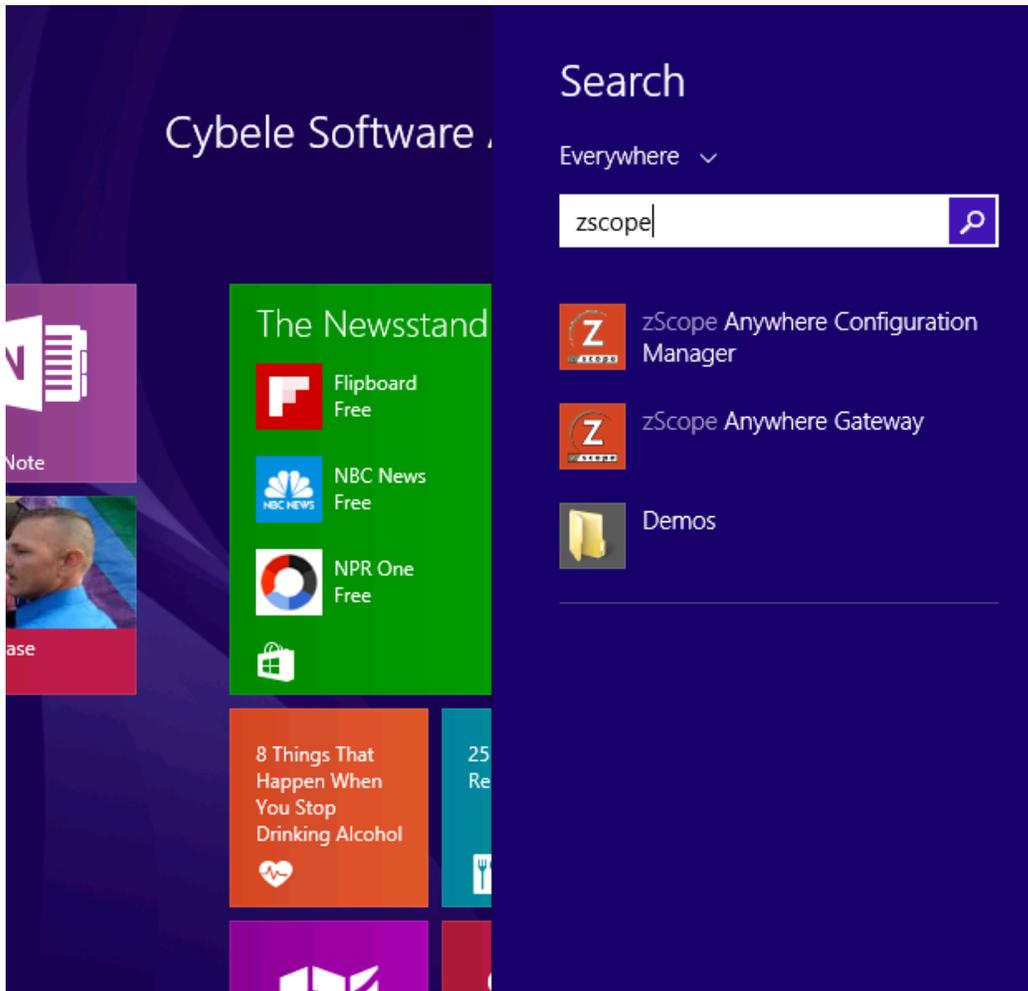
Exit

The Exit button closes the application. To open the application back go to the "Start Menu" and click on the "z/Scope Anywhere" menu item.

Server Mode

The server mode installation starts the application automatically every time Windows Operational System starts. To use the web application you should open a browser and type in the server address.

The Configuration Manager can be opened through the Start Menu as well, by clicking on the "z/Scope Anywhere-Configuration Manager" menu item.



Read more:

- [The User Interface](#)
- [Establishing Your First Connection](#)

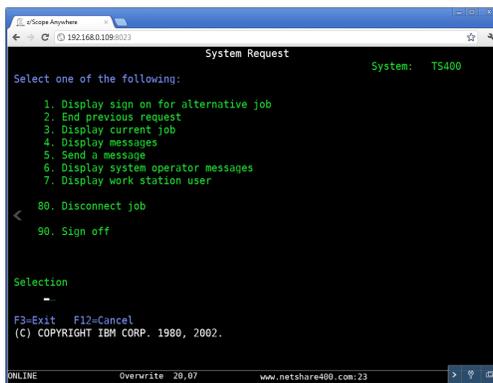
4.3 The User Interface

Z/Scope user interface has two main screen views:

[Start Page](#) [\(read more\)](#)



[Connection View](#) [\(read more\)](#)

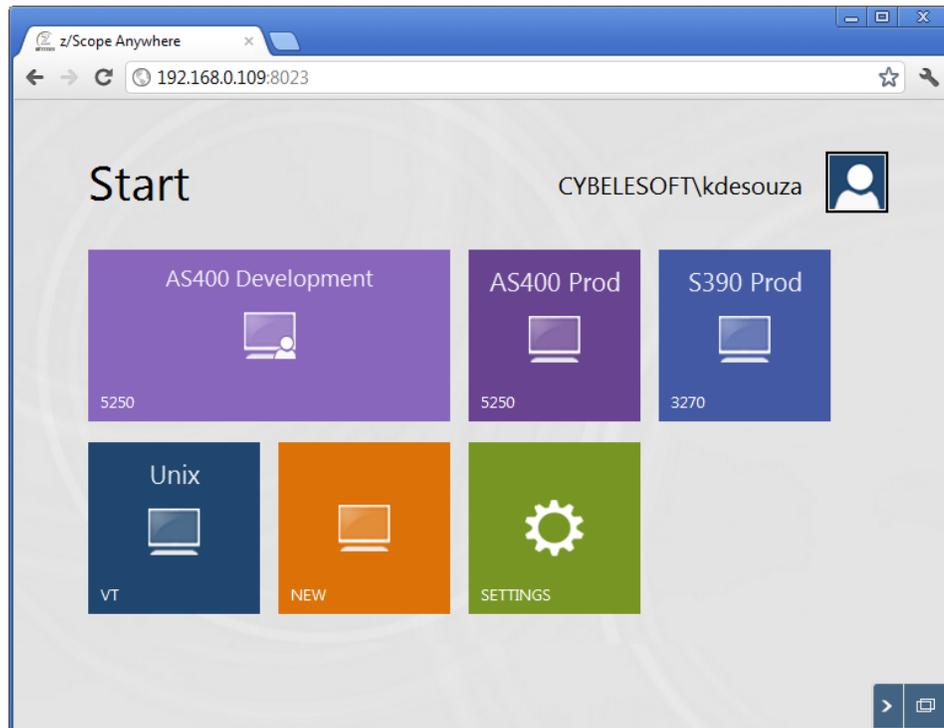


The [Open Session List](#), available on both viewing screen modes, is a convenient and easy way to navigate through all active connections. The other possible way to navigate on z/Scope Anywhere is described on the [Navigation](#) topic.

Get to know also about the special gestures and virtual keyboards on the [mobile devices](#) interface.

4.3.1 Start Page

The Start Page provides a convenient and quick access to the Connections and its settings.



The start page enables you to:

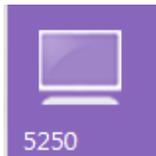
- Visualize the [configured connections](#)
- [Open new sessions](#) from the existing connections
- [Add new private connections](#) through the "New" button
- [Customize the existing connections preferences](#) through the "Settings" button
- Visualize the logged user in the upper right corner.

For a more detailed explanation on the Start Page structure, read the next topics:

- [Connection buttons](#)
- [Toolbar](#)
- [Open Sessions list](#)

4.3.1.1 Connection Buttons

The z/Scope Anywhere Start Page has a set of colored buttons. Each button color stands for a different kind of connection or function button:



5250 Connection

The purple buttons are shared connections to IBM AS/400 hosts. Click on this button to open a new 5250 connection with the host using the previously configured settings.



3270 Connection

The blue buttons are shared connections to IBM Mainframes. Click on this button to open a new 3270 connection with the host using the previously configured settings.



VT Connection

The light blue buttons are shared connections to UNIX, VTXXX or SSH hosts. Click on this button to open a new connection of this kind with the host using the previously configured settings.



New

The 'New' button allows you to create private connections with personal preferences and communication parameters. Read the topic [Setting up a Connection](#) for further information.



Settings

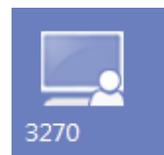
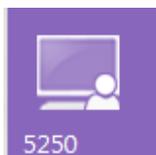
Through the 'Settings' button you can customize the available connections and configure personal preferences. These modified preferences are stored per user.



Admin

The 'Admin' button gives you access to the [Admin Control Panel](#). Once you click on this button, the Control Panel will be open on a new browser tab/window. This feature will be only enabled to [assigned users](#).

If the connection button has a user on the bottom of the computer icon, it means it is a [private connection](#) created by the logged user.

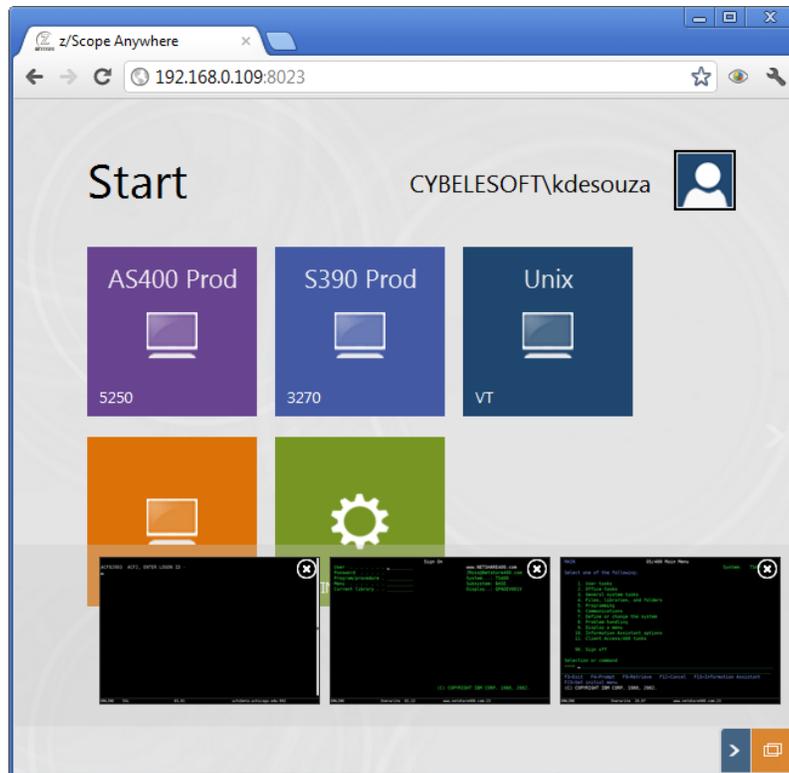


Read more:

- [Start Page Toolbar](#)

4.3.1.2 Toolbar

On the main page bottom you will find the Start Page toolbar:



The Start Page toolbar includes:



Show/Hide Toolbar

This button shows and hides the toolbar. Click on it and you will see



Open sessions

This button presents a list with all open sessions. Observe on the image above the three active sessions shown. If you have active sessions, click on one of them to have it opened on your web browser.

Read more:

- [Start Page Connection Buttons](#)

4.3.2 Connection View

Every time you open a new connection from the [Start Page](#) or an existing one from [Open Sessions list](#) you will be presented with the host emulation screen. The image below shows you how z/Scope Anywhere looks when presenting a AS/400 emulation screen:



The Connection Views consists of:

- the Emulation Display
- the [Toolbar](#)
- [Virtual Keyboards](#) (only for connections using mobile devices)

Read more about the features in the Connection View:

- [Macros](#)
- [Keypads](#)

4.3.2.1 Toolbar

On the bottom of the [Connection View](#) you will find its context Toolbar:



The Connection View toolbar includes:



Show/Hide Toolbar

This button shows and hides the toolbar. Click on it and you will see the toolbar.



Macros

Click on the Macros icon to see the existing macros. It is shown only when there are macros for the current connection.



Keypads

Click on the Keypads icon to see all enabled keypads on this connection. It is shown only when one or more keypads are enabled to the current connection.



Settings

This button opens many available settings, such as Macros managing, Enabling Keypads and disconnecting from this session.



Open Sessions

This button presents you with a list with all open sessions. Learn more about this option on the [Open Sessions List](#) topic.

The settings menu will present you with the following options:



Disconnect

Disconnects this open session.



Select Keypads

Click on this button to enable one of the existing keypads to this open session.



Record Macro

Click on this button to record a new macro sequence. Read also the [Creating a Macros topic](#).



Manage Macros

This button will open a dialog that will allow you to rename and delete the existing macros.

 PRINT SCREEN

Print Screen

Takes a screenshot of the current connection view.

 FILE TRANSFER

File Transfer

This file will open the File Transfer dialog. For more info about the File Transfer operations, read the topic [File Transfer](#).

Read more:

- [Open Sessions List](#)
- [Navigation](#)

4.3.3 Open Sessions List

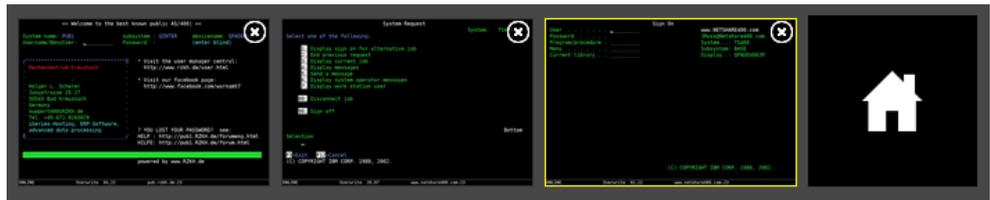
The open sessions can be visualized either from the [Start Page](#) or from the [Connections View](#) toolbars.

On both toolbars you will find the icon below that will give access to the active sessions:



Open active sessions list

If you leave the mouse over it, the list of active sessions will be shown. The image below presents you with an open session list. The connection signed with an yellow square represents the active session.



Learn how to:



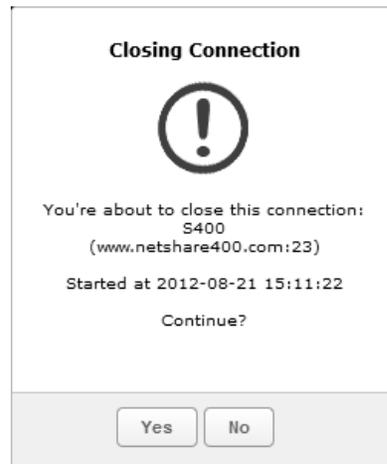
Show a Session

Click anywhere over the session icon to open it on the web browser.



Close a Session

Click on the 'close' icon and press 'Close' on the question that will be presented to you:



Go back to the Start Page

Click on the Home button to get back to the [Start Page](#).

Read the [Navigation](#) topic to learn another way to navigate through z/Scope Anywhere open sessions and Start Page.

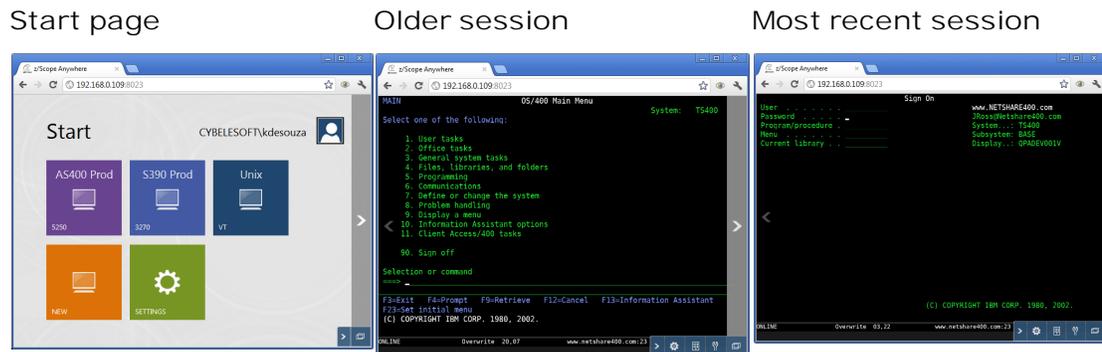
4.3.4 Navigation

The Start Page and all the currently open sessions work as pages in which you can navigate through.

Right Navigation:

If you position the mouse on the rightmost area of the Start Page screen you will see a gray band with a arrow in the middle.

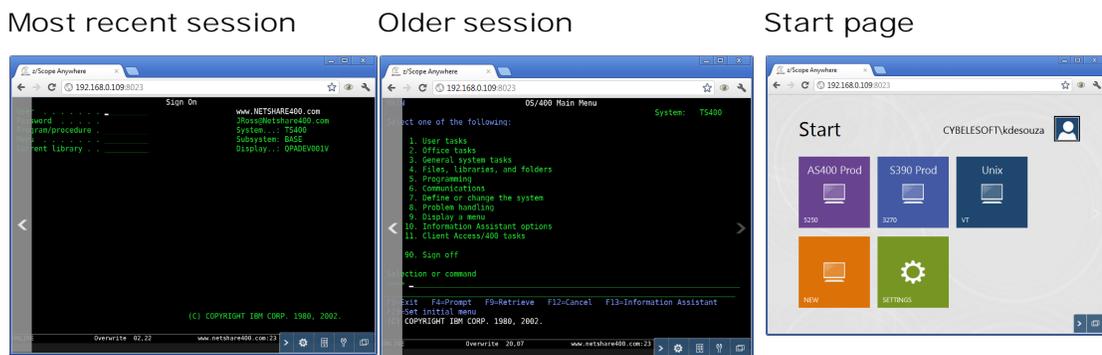
Click on that area to navigate through the open sessions. Observe that that last session will not have a right navigation arrow.



Left Navigation:

Once you are in any Connection Session, you may navigate to the left in order to go from this session through the oldest ones, until getting back to the Start Page.

To navigate left, you should position the mouse on the leftmost area and click on the gray band that will be presented.

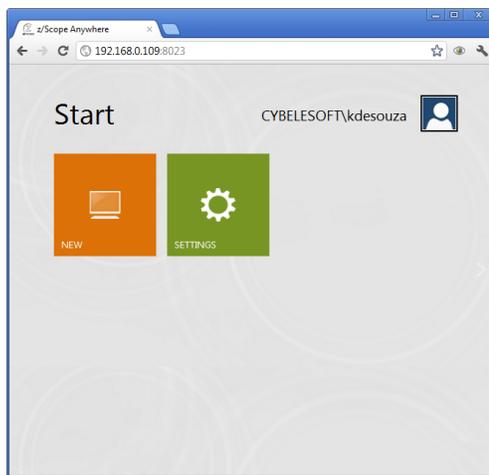


On [mobile devices](#) this same navigation can be done using the "right-flick" and "left-flick" [gestures](#).

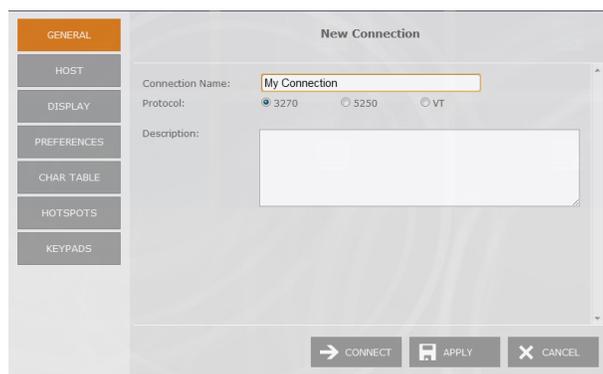
4.4 Establishing your first connection

Follow the next steps and learn how establish your first connection from scratch.

1. Open your preferred web browser.
2. Type in the z/Scope Anywhere address. In a server mode installation, configure this address in the [gateway manager](#). In a desktop mode installation, find these settings in the [communication tab in the Server settings](#).
3. Inform your username and password, if required.
4. The [Start Page](#) will be presented to you.



5. Click on the "New" button.
6. Give a name to the Connection on the "Connection Name" field.



7. Select the Protocol related to the kind of host you want to connect to:
 - VT for UNIX, VT and SSH Hosts
 - 3270 for IBM Mainframe Hosts
 - 5250 for AS/400 Hosts

8. Go to the Host tab and inform the Host IP on the "Address" field.
9. Press the "Apply" button.
10. The new connection button will be shown on the [Start Page](#). Click on it.
11. From this on, you will be able to interact with the host through the emulation display that will be presented to you.



The screenshot shows a terminal window titled "z/Scope Anywhere" with the address bar displaying "192.168.0.109:8023". The main content area is titled "System Request" and shows a list of options for a "System: TS400". The options are:

- 1. Display sign on for alternative job
- 2. End previous request
- 3. Display current job
- 4. Display messages
- 5. Send a message
- 6. Display system operator messages
- 7. Display work station user
- 80. Disconnect job
- 90. Sign off

Below the list, there is a "Selection" field with a cursor. At the bottom, it says "F3=Exit F12=Cancel" and "(C) COPYRIGHT IBM CORP. 1980, 2002." The status bar at the bottom indicates "ONLINE", "Overwrite 20,07", and "www.netshare400.com:23".

Read more:

- [Customizing a connection](#)

5 Features

Z/Scope's features were specifically designed to improve your productivity on terminal emulation experience.

Access the user web interface by following the next steps:

1. Open your preferred web browser.
2. Type in the [z/Scope server address](#).
3. Inform your username and password, if required.
4. The [Start Page](#) will be presented to you.

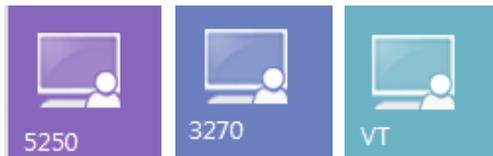
The following sections are intended to give you a first look at the z/Scope Anywhere features:

- [Connections](#)
- [File Transfer](#)
- [HotSpots](#)
- [Keyboard Support](#)
- [Keypads](#)
- [Macros](#)
- [Screen Styles](#)
- [Admin Control Panel](#)
- [Security and Encryption](#)
- [Authentication modes](#)

5.1 Connections

The connections on z/Scope Anywhere can be created as:

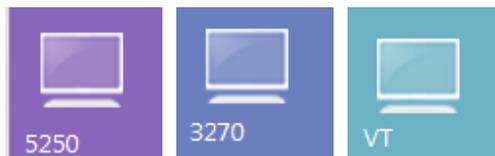
1. **Private:** It is created by the user from the web interface.



Only the user who created a private connection will have access to it.
All the operations over a private connection can be done from the web Interface:

[Create](#)
[Modify](#)
[Delete](#)
[Connect](#)

2. **Shared:** A shared connection is created by the system administrator who makes it available to many z/Scope users.



This kind of connection can only be created and managed from Configuration Manager tool, by the system administrator.
Find below which operations can be done from the user interface over the shared connections:

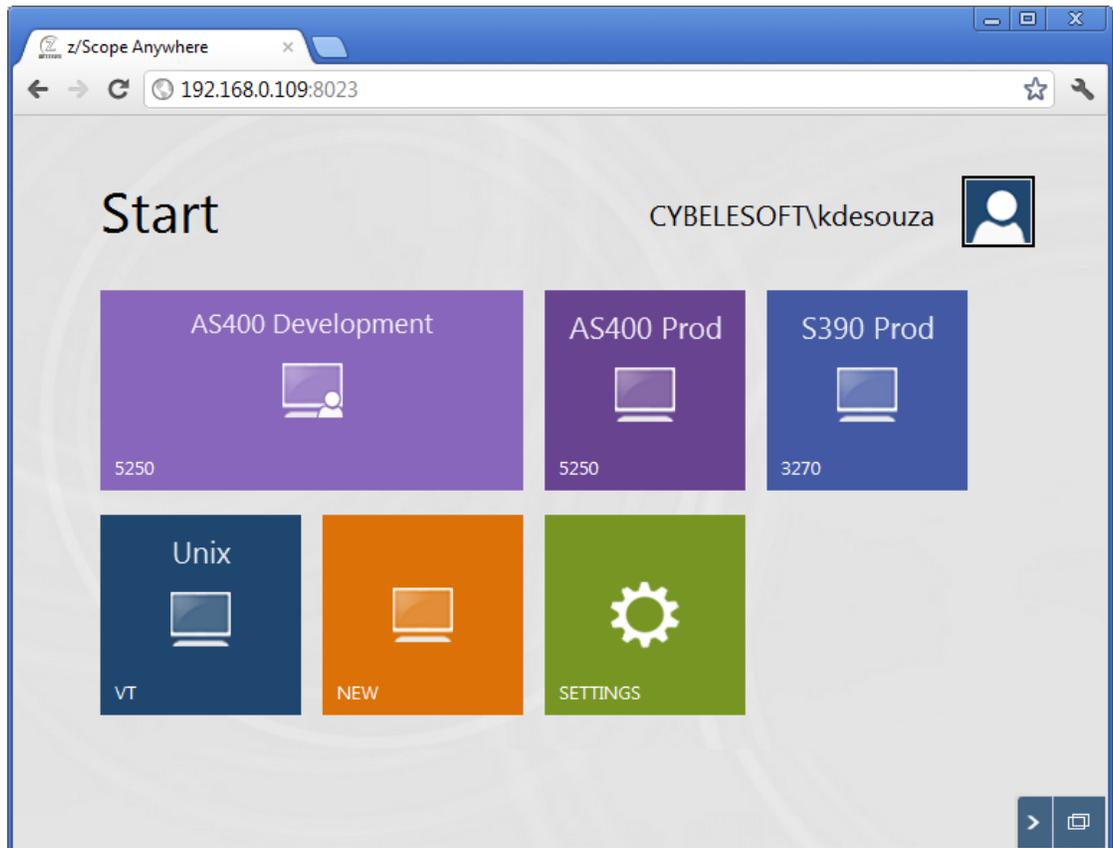
[Modify user personal settings](#)
[Connect](#)

Read more:

- [Setting up a Shared Connection](#)

5.1.1 Setting up a private connection

In order to define a new connection, you should click on the [New](#) button located on the [Start page](#) view.



After clicking on "New", the screen below will be presented:

The screenshot shows the 'New Connection' dialog box. On the left is a sidebar with the following options: GENERAL (highlighted in orange), HOST, DISPLAY, PREFERENCES, CHAR TABLE, HOTSPOTS, and KEYPADS. The main area is titled 'New Connection' and contains the following fields:

- Connection Name: My Connection
- Protocol: 3270 5250 VT
- Description: (empty text area)

At the bottom of the dialog are three buttons: CONNECT (with a right arrow icon), APPLY (with a floppy disk icon), and CANCEL (with an X icon).

To learn about the different type of hosts you can connect to using z/Scope, refer to the following sections.

- [Setting up a UNIX/VT Connection](#)
- [Setting up an IBM Mainframe or AS/400 connection](#)

For a detailed description on how to further customize the connections you have created, see the following topics:

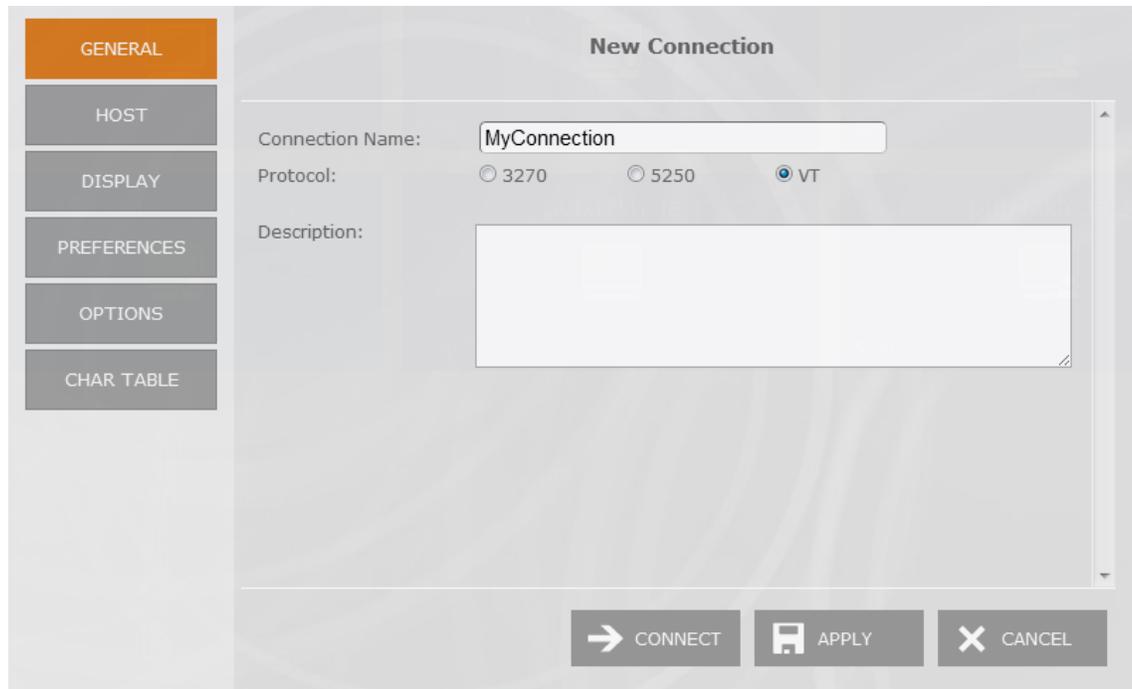
- [Editing a Unix/VT connection](#)
- [Editing an IBM Mainframe or AS/400 Connection](#)

5.1.1.1 Setting up a UNIX/VT/SSH Connection

This page will guide you through the process of creating a UNIX/VT/SSH connection using the web user interface.

General

Inform the 'Connection Name' and select 'VT' as the 'Protocol'. You can also better describe the connection by filling the 'Description' field.



The screenshot displays the 'New Connection' configuration page. On the left is a vertical sidebar with tabs: 'GENERAL' (highlighted in orange), 'HOST', 'DISPLAY', 'PREFERENCES', 'OPTIONS', and 'CHAR TABLE'. The main area is titled 'New Connection' and contains the following fields:

- Connection Name:** A text input field containing 'MyConnection'.
- Protocol:** Three radio button options: '3270', '5250', and 'VT'. The 'VT' option is selected.
- Description:** A large, empty text area for providing details about the connection.

At the bottom right of the main area are three buttons: 'CONNECT' (with a right-pointing arrow icon), 'APPLY' (with a floppy disk icon), and 'CANCEL' (with an 'X' icon).

Host

In this tab, you must enter the URL or IP address of the host you want to connect to. If you would like to specify a different port than the default Telnet port (23), inform it on the 'Port' field.

You may check the option SSH. In that case, read the [Connection with SSH](#) topic.

Choose your profile: My Unix

Address: myUnix.com
Port: 23

Enable Keep Alive
 SSL
 SSH
 Socks Firewall
 Has Backup
 Disable Telnet Protocol Negotiation
 Disable Server Echo

CONNECT APPLY DELETE CANCEL

Display Type

Under the 'Display' tab, specify the display type and size.

Choose your profile: My Unix

Terminal

Type: ANSI
String: ANSI Automatic
DEC Answerback:
 Auto wrap

Screen Size

Dimensions: 24 rows x 80 cols
 Fixed Column Size
Scrollback lines: 1000

Scrolling

Mode: Smooth Jump
Jump speed: 2

CONNECT APPLY DELETE CANCEL

After that, click on 'Apply' to save the connection, or click on 'Connect' if you want to connect only for this time.

Related items:

- [Editing a UNIX/VT Connection](#)
- [Creating a Connection](#)

5.1.1.1.1 SSH Connection

This page will guide you through the process of creating an SSH UNIX/VT/SSH connection.

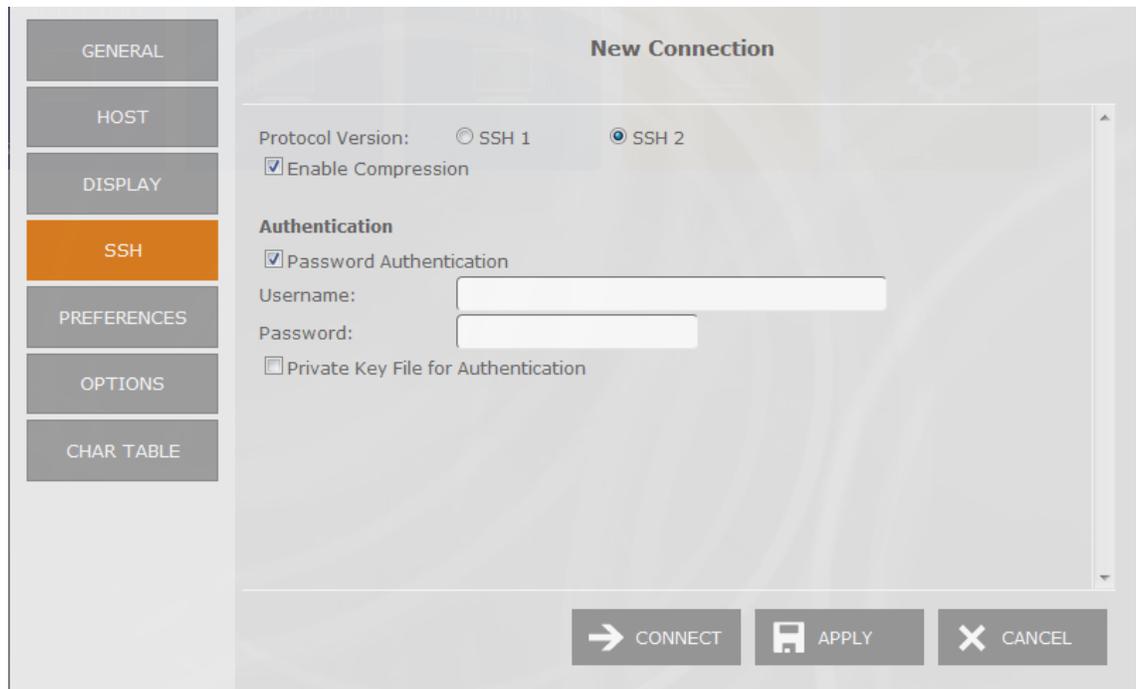
Once in the Host tab, enter the host address, the port, check the 'SSH' option and go to the 'SSH' tab.

The screenshot shows a 'New Connection' dialog box with a sidebar on the left containing tabs: GENERAL, HOST (selected), DISPLAY, SSH, PREFERENCES, OPTIONS, and CHAR TABLE. The main content area is titled 'New Connection' and contains the following fields and options:

- Address: myhost.com
- Port: 23
- Enable Keep Alive
- SSL
- SSH
- Socks Firewall
- Has Backup
- Disable Telnet Protocol Negotiation
- Disable Server Echo

At the bottom right, there are three buttons: CONNECT, APPLY, and CANCEL.

Only if you have marked the SSH checkbox, you will have the SSH tab available. The default protocol is the SSH 2, but you can always change it to the SSH 1 protocol. Enter the username and password on the Authentication section to identify you in the connection.



Additionally you can specify a private key file by marking the 'Private Key Field' checkbox and informing the file location on the 'Key file' field.

To save the connection, click on 'Apply', otherwise, if you want to connect only for this time, press the 'Connect' button.

Related items:

- [Editing a UNIX/VT Connection](#)
- [Creating a Connection](#)

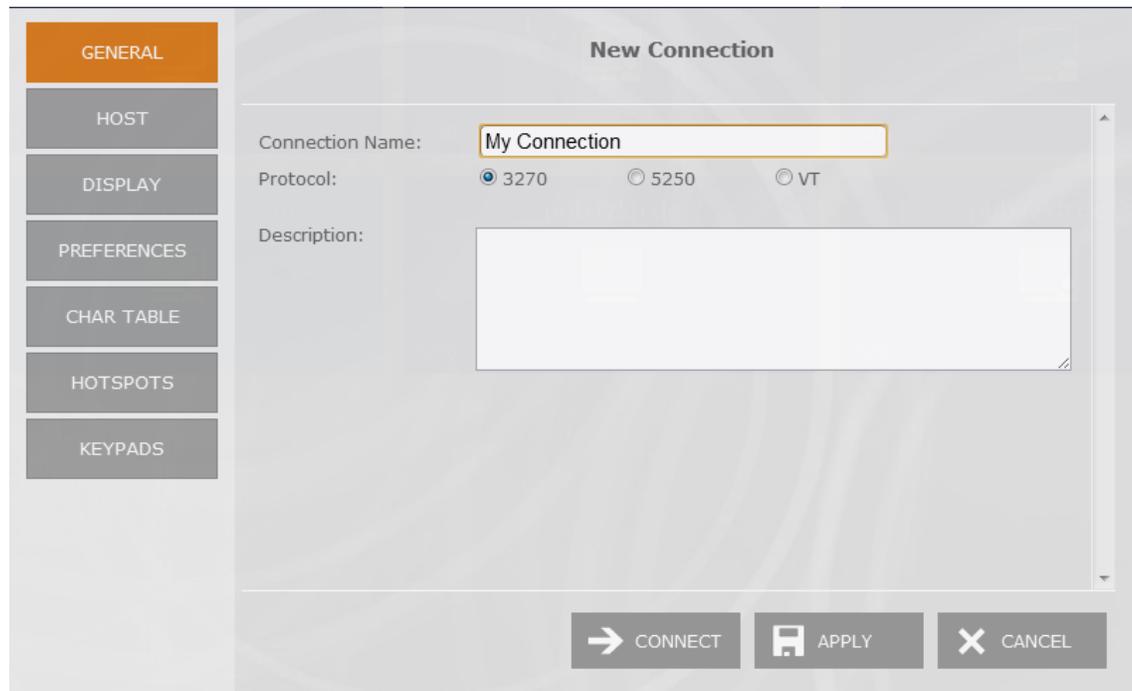
5.1.1.2 Setting up an IBM Mainframe or AS/400 Connection

This page will guide you through the process of creation an IBM Mainframe or AS/400 connection in the web user interface.

General

Inform the 'Connection Name' and select '3270' for connections with IBM Mainframes or '5250' for connections with an AS/400.

You can also better describe the connection by filling the 'Description' field.



The screenshot displays the 'New Connection' configuration page. On the left is a vertical sidebar with tabs: GENERAL (highlighted in orange), HOST, DISPLAY, PREFERENCES, CHAR TABLE, HOTSPOTS, and KEYPADS. The main area is titled 'New Connection' and contains the following fields:

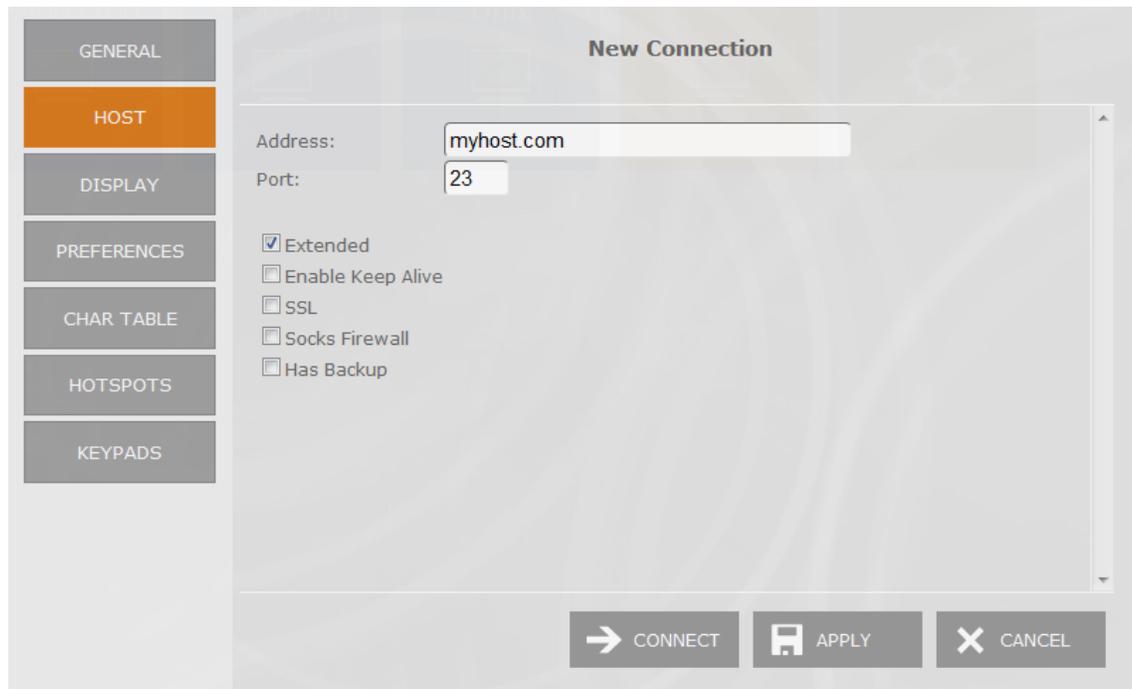
- Connection Name:** A text input field containing 'My Connection'.
- Protocol:** Radio buttons for '3270' (selected), '5250', and 'VT'.
- Description:** A large, empty text area for providing details about the connection.

At the bottom right of the main area are three buttons: 'CONNECT' (with a right-pointing arrow), 'APPLY' (with a floppy disk icon), and 'CANCEL' (with an 'X' icon).

Host

In this tab you must enter the URL or IP address of the host you want to connect to.

If you would like to specify a port different than the default Telnet port (23), inform it on the 'Port' field.



The screenshot shows the 'New Connection' dialog box with the 'HOST' tab selected. The left sidebar contains buttons for GENERAL, HOST, DISPLAY, PREFERENCES, CHAR TABLE, HOTSPOTS, and KEYPADS. The main area contains the following fields and options:

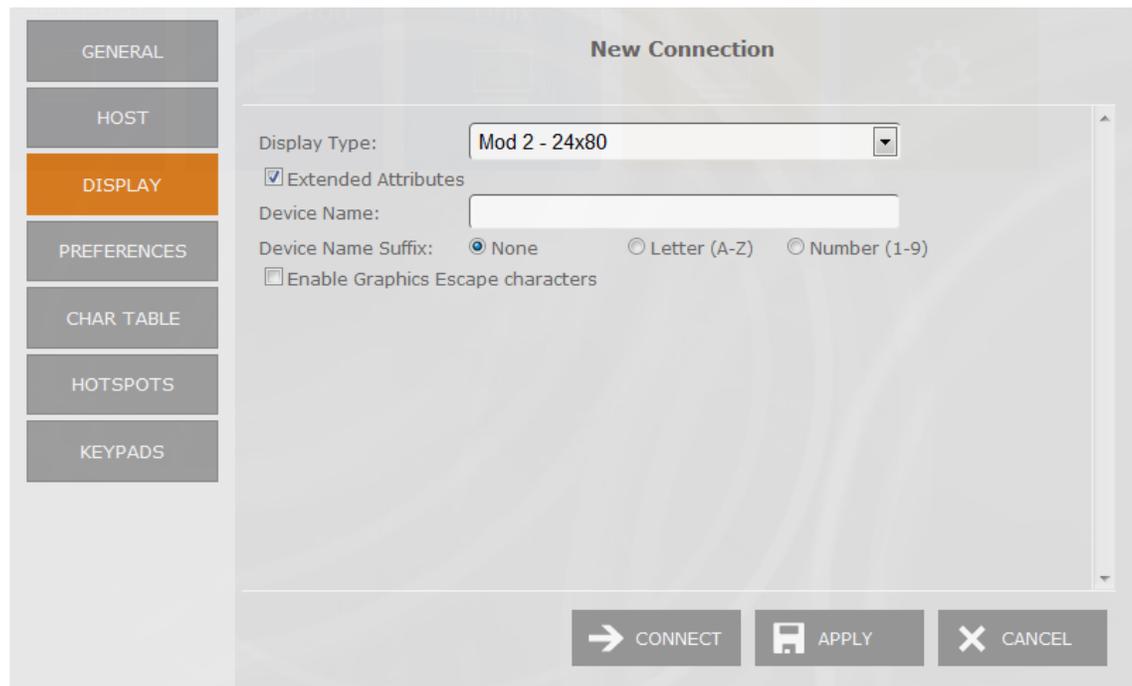
- Address: myhost.com
- Port: 23
- Extended
- Enable Keep Alive
- SSL
- Socks Firewall
- Has Backup

At the bottom right, there are three buttons: CONNECT, APPLY, and CANCEL.

Display Type

3270

If you are creating an IBM Mainframe connection, you will have the following options to fill/select, on the display tab.



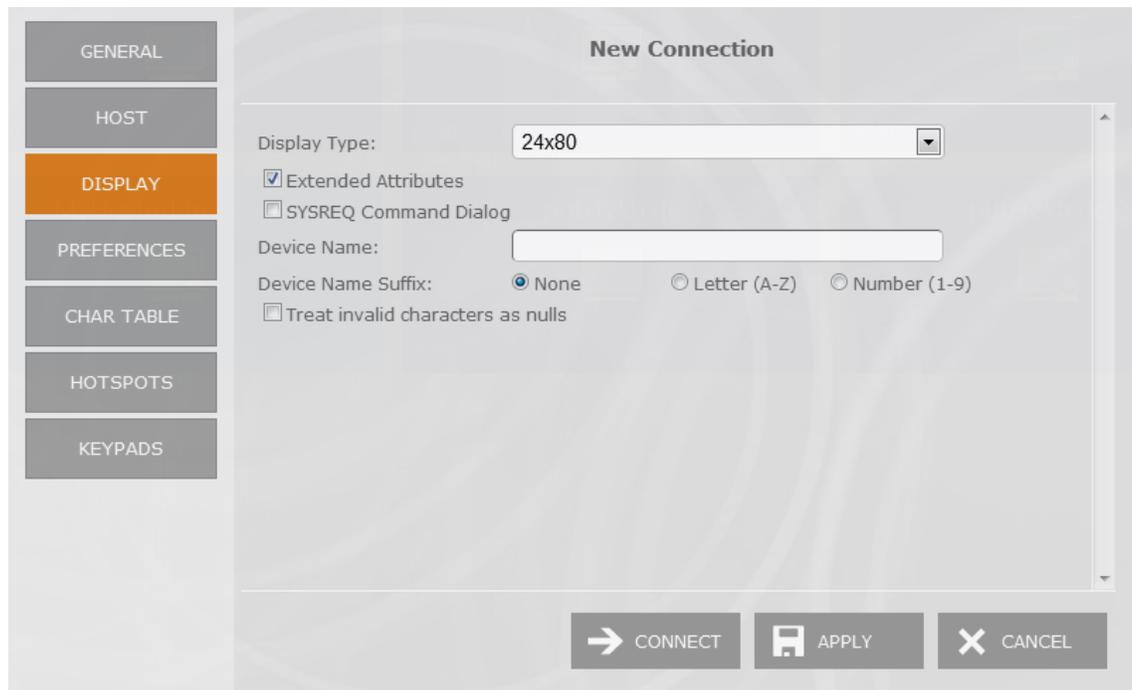
The screenshot shows the 'New Connection' dialog box with the 'DISPLAY' tab selected. The left sidebar contains buttons for GENERAL, HOST, DISPLAY, PREFERENCES, CHAR TABLE, HOTSPOTS, and KEYPADS. The main area contains the following fields and options:

- Display Type: Mod 2 - 24x80
- Extended Attributes
- Device Name: [Empty text box]
- Device Name Suffix: None Letter (A-Z) Number (1-9)
- Enable Graphics Escape characters

At the bottom right, there are three buttons: CONNECT, APPLY, and CANCEL.

5250

If you are creating an AS/400 connection, the display tab will present you with these following options to be filled/selected.



The screenshot shows a 'New Connection' dialog box with a sidebar on the left containing tabs: GENERAL, HOST, DISPLAY (highlighted in orange), PREFERENCES, CHAR TABLE, HOTSPOTS, and KEYPADS. The main area is titled 'New Connection' and contains the following fields and options:

- Display Type: 24x80 (dropdown menu)
- Extended Attributes
- SYSREQ Command Dialog
- Device Name: (text input field)
- Device Name Suffix: None Letter (A-Z) Number (1-9)
- Treat invalid characters as nulls

At the bottom right, there are three buttons: CONNECT (with a right arrow icon), APPLY (with a floppy disk icon), and CANCEL (with an X icon).

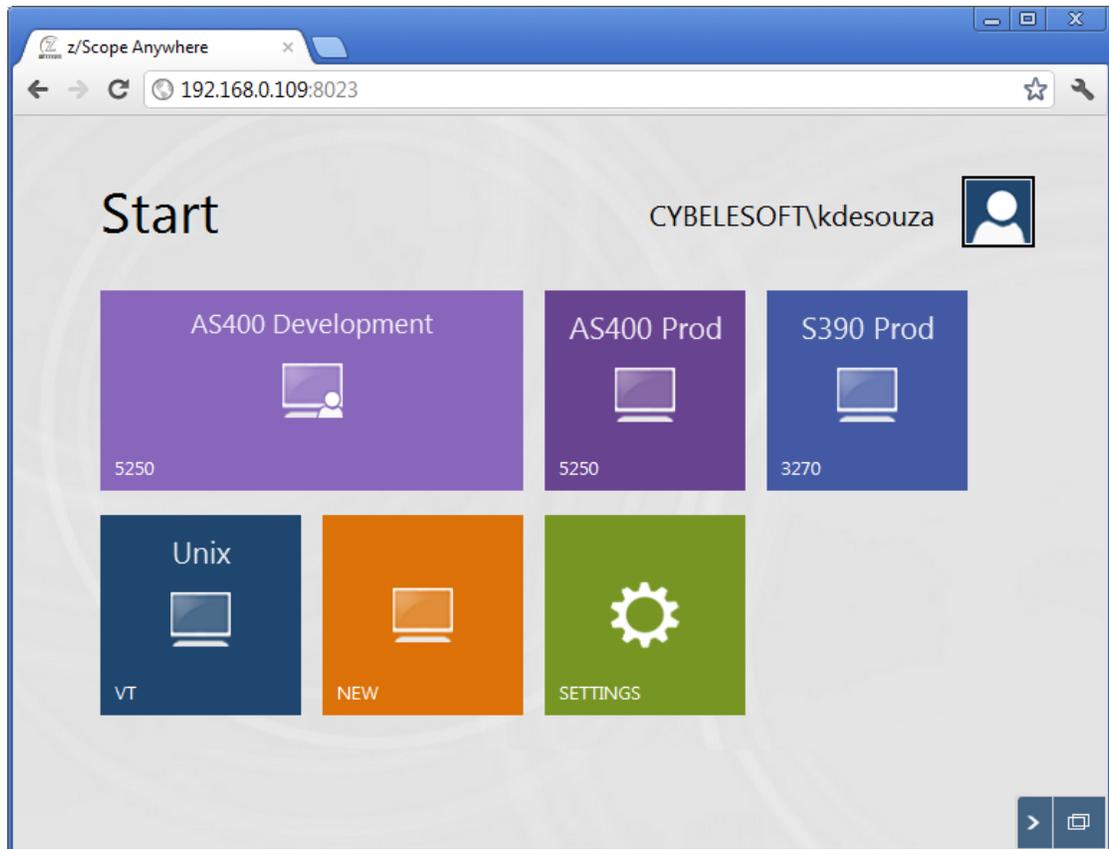
After all, click on 'Apply' to save the connection, or click on 'Connect' if you want to connect only for this time.

Related items:

- [Editing an IBM Mainframe or AS/400 Connection](#)
- [Creating a Connection](#)

5.1.2 Customizing a connection

If you wish to modify an existing connection from the web interface, click on the [Settings](#) button located on the [Start page](#) view.



On the top of the Connections settings screen (field 'Choose your profile') you should select the connection to be edited.

The image below shows a [Shared connection](#), in which the connection parameters can't be modified. These kind of connection allows you to modify only your personal preferences (Preferences, Hotspots and Keypads tabs parameters).

The screenshot shows a configuration window for a connection profile named 'AS400 Prod'. On the left is a vertical sidebar with menu items: GENERAL (highlighted in orange), HOST, DISPLAY, PREFERENCES, CHAR TABLE, HOTSPOTS, and KEYPADS. The main area has a header 'Choose your profile:' with a dropdown menu showing 'AS400 Prod'. Below this, the 'Connection Name:' field contains 'AS400 Prod'. The 'Protocol:' section has three radio buttons: '3270' (unselected), '5250' (selected), and 'VT' (unselected). A large empty text area is labeled 'Description:'. At the bottom right, there are three buttons: 'CONNECT' (with a right arrow icon), 'APPLY' (with a floppy disk icon), and 'CLOSE' (with an 'X' icon).

Right below you will see a [private connection](#) being edited. In this case, you will be able to modify all parameters.

The screenshot shows a configuration window for a connection profile named 'AS400 Development'. The layout is identical to the previous screenshot, but the 'Choose your profile:' dropdown now shows 'AS400 Development'. The 'Connection Name:' field contains 'AS400 Development'. The 'Protocol:' section has three radio buttons: '3270' (unselected), '5250' (selected), and 'VT' (unselected). The 'Description:' field is empty. At the bottom right, there are four buttons: 'CONNECT' (with a right arrow icon), 'APPLY' (with a floppy disk icon), 'DELETE' (with a trash can icon), and 'CLOSE' (with an 'X' icon).

Remember to click on the 'Apply' button to save the changes. Read the following topics if you wish to learn more about the other setting parameters for each kind of connection:

Related items:

- [Editing a UNIX/VT Connection](#)
- [Editing and IBM Mainframe or AS/400 Connection](#)

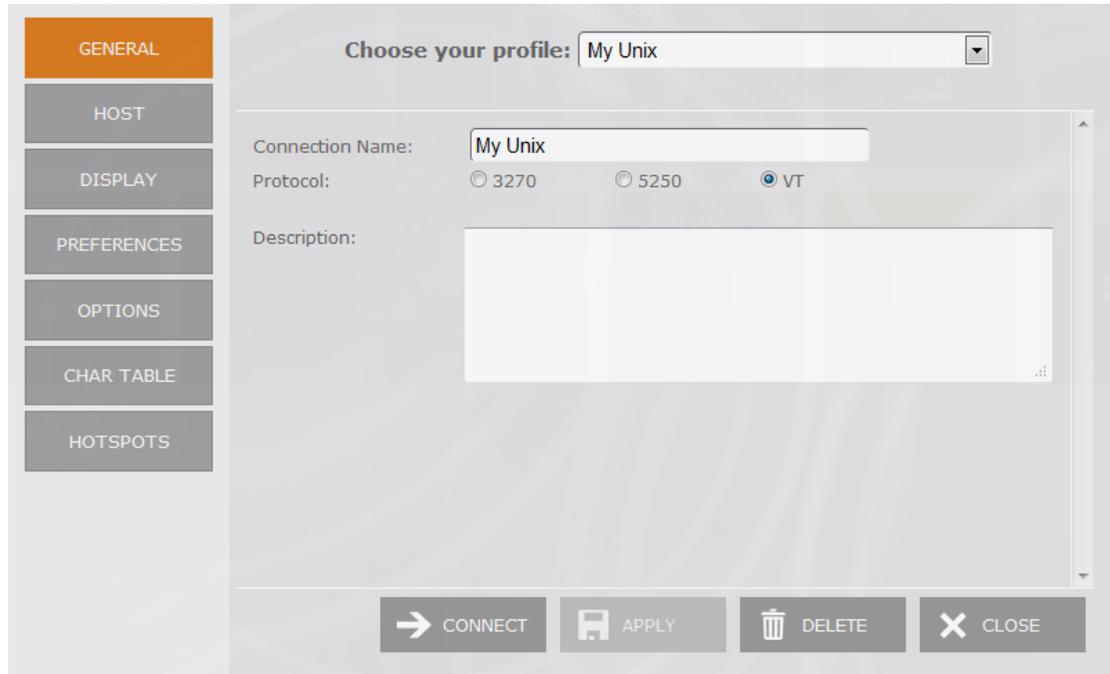
5.1.2.1 Editing a Unix/VT connection

For a detailed description of the parameters available when editing Unix/VT connections on the web interface, consult the following sections:

- [General](#)
- [Host](#)
- [Backup](#)
- [Display](#)
- [Socks](#)
- [SSL](#)
- [SSH](#)
- [Preferences](#)
- [Options](#)
- [Char Table](#)

5.1.2.1.1 General

In the 'General' tab you will find the following parameters:



The screenshot shows the 'General' tab configuration interface for a connection profile. On the left, a vertical sidebar contains tabs: GENERAL (highlighted in orange), HOST, DISPLAY, PREFERENCES, OPTIONS, CHAR TABLE, and HOTSPOTS. The main area is titled 'Choose your profile: My Unix' with a dropdown menu. Below this, the 'Connection Name' field contains 'My Unix'. The 'Protocol' section has three radio buttons: 3270, 5250, and VT (which is selected). The 'Description' field is a large, empty text area. At the bottom, there are four buttons: CONNECT (with a right arrow), APPLY (with a floppy disk icon), DELETE (with a trash can icon), and CLOSE (with an X icon).

Connection name

In this field you must enter a name to identify the connection.

Protocol

Select 'VT' as protocol.

Description

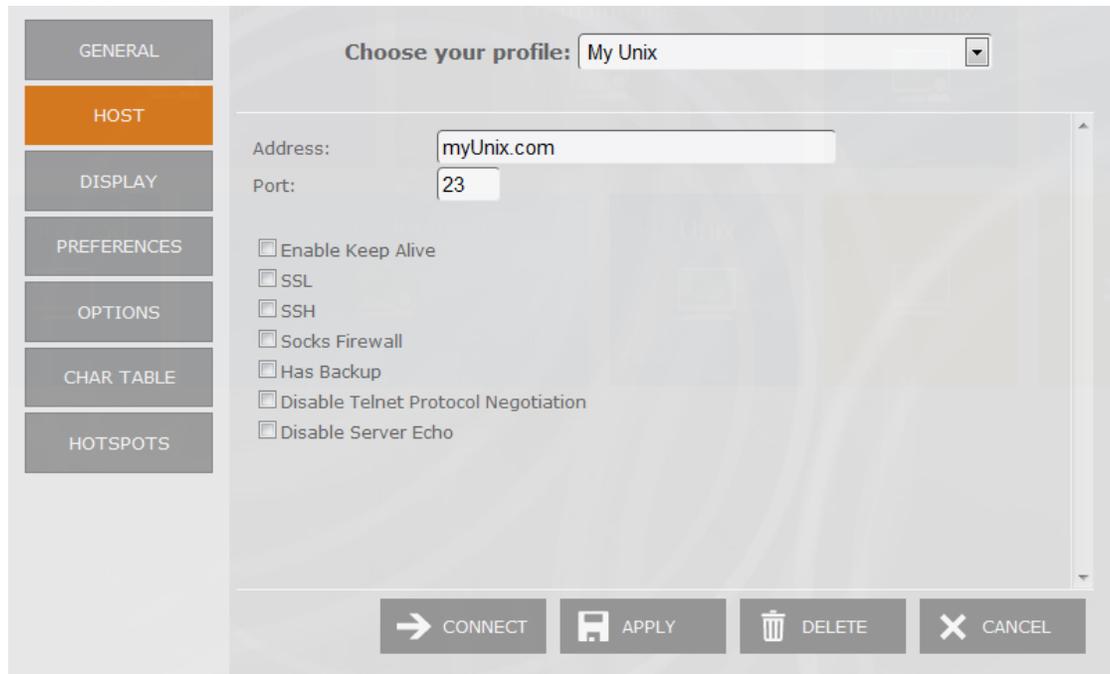
You can type a longer description for the connection in this field.

Read more:

- [Unix/VT Connections - Host Settings \(Web Interface\)](#)
- [Unix/VT Connections - Backup Settings \(Web Interface\)](#)
- [Unix/VT Connections - Display Settings \(Web Interface\)](#)
- [Unix/VT Connections - Socks Settings \(Web Interface\)](#)
- [Unix/VT Connections - SSL Settings \(Web Interface\)](#)
- [Unix/VT Connections - SSH Settings \(Web Interface\)](#)
- [Unix/VT Connections - Preference Settings \(Web Interface\)](#)
- [Unix/VT Connections - Options Settings \(Web Interface\)](#)
- [Unix/VT Connections - Char Table Settings \(Web Interface\)](#)
- [Unix/VT Connections - HotSpots Settings \(Web Interface\)](#)

5.1.2.1.2 Host

In the 'Host' tab you will find the following parameters:



The screenshot shows a configuration window for a host. On the left is a sidebar with tabs: GENERAL, HOST (selected), DISPLAY, PREFERENCES, OPTIONS, CHAR TABLE, and HOTSPOTS. The main area has a dropdown menu 'Choose your profile:' with 'My Unix' selected. Below are two input fields: 'Address:' with 'myUnix.com' and 'Port:' with '23'. A list of checkboxes follows: 'Enable Keep Alive', 'SSL', 'SSH', 'Socks Firewall', 'Has Backup', 'Disable Telnet Protocol Negotiation', and 'Disable Server Echo'. At the bottom are four buttons: 'CONNECT' (with a right arrow), 'APPLY' (with a floppy disk icon), 'DELETE' (with a trash can icon), and 'CANCEL' (with an X icon).

Address

URL or IP address of the host computer.

Port

TCP port defined at the host computer for Telnet access.

 Default Telnet port number is 23.

Enable Keep alive

Enables keep-alive mechanism, needed for some Telnet servers to prevent disconnections.

SSL

Enables the SSL (Secure Sockets Layer) protocol for the host.

 When you check this option, the '[SSL' tab](#) will automatically appear in the connection settings dialog. See [Using SSL](#). The SSL and SSH options are mutually exclusive.

SSH

Enables the SSH protocol for the host.

 When you check this option, the '[SSH' tab](#) will automatically appear in the connection settings dialog. The SSH and SSL options are mutually exclusive.

Socks Firewall

Enables support for Socks firewall.



When you check this option, the '[Socks](#)' tab will automatically appear in the connection settings dialog.

Has Backup

Check this option if you would like to specify an alternate ip for this connection.



When you check this option, the '[Backup](#)' tab will automatically appear in the connection settings dialog.

Disable Telnet Protocol Negotiation

Check this option if you want to omit the protocol negotiation when connecting.

Disable Server Echo

Check this option if you don't want the server to echo every character it receives.

Read more:

- [Unix/VT Connections - General Settings \(Web Interface\)](#)
- [Unix/VT Connections - Backup Settings \(Web Interface\)](#)
- [Unix/VT Connections - Display Settings \(Web Interface\)](#)
- [Unix/VT Connections - Socks Settings \(Web Interface\)](#)
- [Unix/VT Connections - SSL Settings \(Web Interface\)](#)
- [Unix/VT Connections - SSH Settings \(Web Interface\)](#)
- [Unix/VT Connections - Preference Settings \(Web Interface\)](#)
- [Unix/VT Connections - Options Settings \(Web Interface\)](#)
- [Unix/VT Connections - Char Table Settings \(Web Interface\)](#)
- [Unix/VT Connections - HotSpots Settings \(Web Interface\)](#)

5.1.2.1.3 Backup

In the 'Backup' tab you will see a table showing the list of alternate hosts for the connection. If the connection fails, z/Scope will connect to an alternate host, starting with the first one in the list. If an alternate host fails, z/Scope will connect to the next one in the list.

To configure these settings you will find the following parameters:

Choose your profile: My Unix

Address:

Device Name:

Port:

Address	Device	Port
---------	--------	------

DELETE MODIFY + ADD

CONNECT APPLY DELETE CANCEL

Address

Enter here the IP address of the alternate host you would like to add for this connection

Device Name

Enter here the Device Name with which you would like to connect to this alternate host.

Port

Enter here the port number for this alternate host.

Add

Press this button to add the Address, Device Name and Port information entered above as a new host in the list. New hosts will be added last in the list.

Modify

Select a backup connection from the list and press this button to replace the selected host with the information entered in the fields 'Address', 'Device Name' and 'Port'.

Delete

Select a backup connection from the list and press this button to delete it from the list.

Read more:

- [Unix/VT Connections - General Settings \(Web Interface\)](#)
- [Unix/VT Connections - Host Settings \(Web Interface\)](#)
- [Unix/VT Connections - Display Settings \(Web Interface\)](#)
- [Unix/VT Connections - Socks Settings \(Web Interface\)](#)

- [Unix/VT Connections - SSL Settings \(Web Interface\)](#)
- [Unix/VT Connections - SSH Settings \(Web Interface\)](#)
- [Unix/VT Connections - Preference Settings \(Web Interface\)](#)
- [Unix/VT Connections - Options Settings \(Web Interface\)](#)
- [Unix/VT Connections - Char Table Settings \(Web Interface\)](#)
- [Unix/VT Connections - HotSpots Settings \(Web Interface\)](#)

5.1.2.1.4 Display

In the 'Display' tab you will find the following parameters:

The screenshot shows the 'Display' configuration page for a terminal profile named 'My Unix'. The interface includes a sidebar with navigation tabs: GENERAL, HOST, DISPLAY (selected), PREFERENCES, OPTIONS, CHAR TABLE, and HOTSPOTS. The main content area is titled 'Choose your profile: My Unix' and contains several sections:

- Terminal**: Type (ANSI), String (ANSI), DEC Answerback (empty), and Auto wrap (checked). There is an 'Automatic' checkbox.
- Screen Size**: Dimensions (24 rows x 80 cols), Fixed Column Size (unchecked), and Scrollback lines (1000).
- Scrolling**: Mode (Smooth and Jump, with Jump selected) and Jump speed (2).

At the bottom, there are four buttons: CONNECT, APPLY, DELETE, and CANCEL.

Terminal

Type / String

Specify the type of terminal to emulate, which is not necessarily the same that is informed to the server. To inform the server a different type of terminal than the one emulated, use the 'String' field. To automatically detect the type of terminal, check the 'Automatic' option.

DEC Answerback

Here you can specify the DEC "Transmit answerback message" control character. Check the 'Use Computer Name' Checkbox to assign the computer's name to the DEC Answerback field.

Auto Wrap

Check this option if you want the text lines to be wrapped when the terminal is resized.

Screen Size

Rows/Cols

Specify the number of rows and columns to be displayed.

Fixed Column Size

Check this option to display a horizontal scrollbar instead of resizing the font.

Scrollbar lines

Specify the number of rows to keep in the buffer so they can be scrolled with the vertical scrollbar.

Scrolling

Smooth/Jump

Select a method for scrolling.

Jump speed

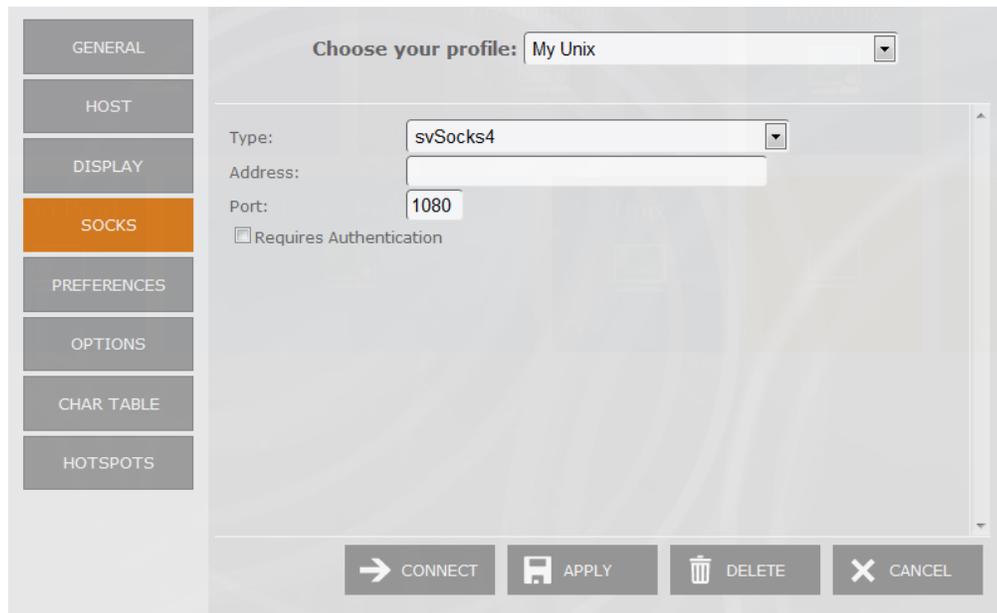
Specify the number of rows to be scrolled when the scrolling method is set to 'Jump'.

Read more:

- [Unix/VT Connections - General Settings \(Web Interface\)](#)
- [Unix/VT Connections - Host Settings \(Web Interface\)](#)
- [Unix/VT Connections - Backup Settings \(Web Interface\)](#)
- [Unix/VT Connections - Socks Settings \(Web Interface\)](#)
- [Unix/VT Connections - SSL Settings \(Web Interface\)](#)
- [Unix/VT Connections - SSH Settings \(Web Interface\)](#)
- [Unix/VT Connections - Preference Settings \(Web Interface\)](#)
- [Unix/VT Connections - Options Settings \(Web Interface\)](#)
- [Unix/VT Connections - Char Table Settings \(Web Interface\)](#)
- [Unix/VT Connections - HotSpots Settings \(Web Interface\)](#)

5.1.2.1.5 Socks

In the 'Socks' tab you will find the following parameters:



This tab only becomes available when the 'Socks' option is checked in the ['Host' tab](#).

Type

Indicates the type of Socks protocol you will be connecting to. z/Scope provides support for svSocks 4, 4A and 5 protocols.

Address

In this field you must enter the IP address of the Socks server.

Port

In this field you must enter the port number of the Socks service at the host.

Requires Authentication

When connecting with svSocks4A protocol and higher, you have the option of providing a User ID and a Password for authentication.

UserId

In this field you must enter your User ID.

Password

In this field you must enter your Password.

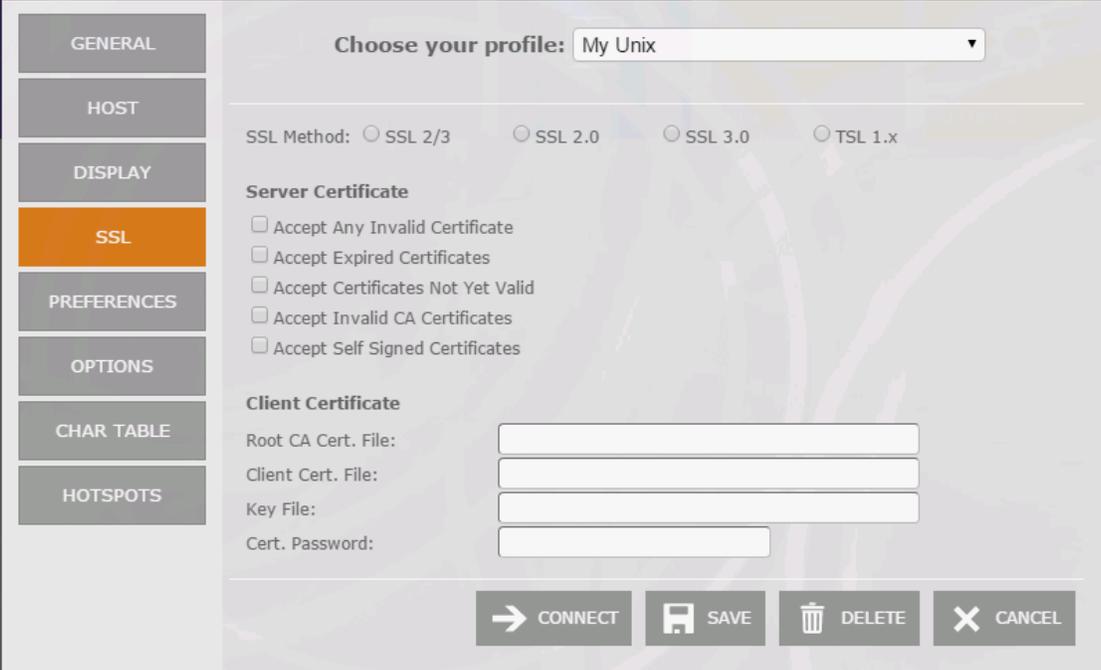
Read more:

- [Unix/VT Connections - General Settings \(Web Interface\)](#)
- [Unix/VT Connections - Host Settings \(Web Interface\)](#)
- [Unix/VT Connections - Backup Settings \(Web Interface\)](#)
- [Unix/VT Connections - Display Settings \(Web Interface\)](#)
- [Unix/VT Connections - SSL Settings \(Web Interface\)](#)
- [Unix/VT Connections - SSH Settings \(Web Interface\)](#)
- [Unix/VT Connections - Preference Settings \(Web Interface\)](#)
- [Unix/VT Connections - Options Settings \(Web Interface\)](#)

- [Unix/VT Connections - Char Table Settings \(Web Interface\)](#)
- [Unix/VT Connections - HotSpots Settings \(Web Interface\)](#)

5.1.2.1.6 SSL

In the 'SSL' tab you will find the following parameters:



 This tab only becomes available when the 'SSL' option is checked in the ['Host' tab](#).

SSL Method

Choose one of the available methods shown: SSL 2.0, SSL 3.0 or TLS 1.x.

Server Certificate

The 'Display certificate' option controls whether to show the Certificate Info immediately after establishing the connection. The other options refer to the policy adopted when dealing with certificates that do not meet certain security conditions.

Client Certificate

Enter the file name of the certificate files that you own.

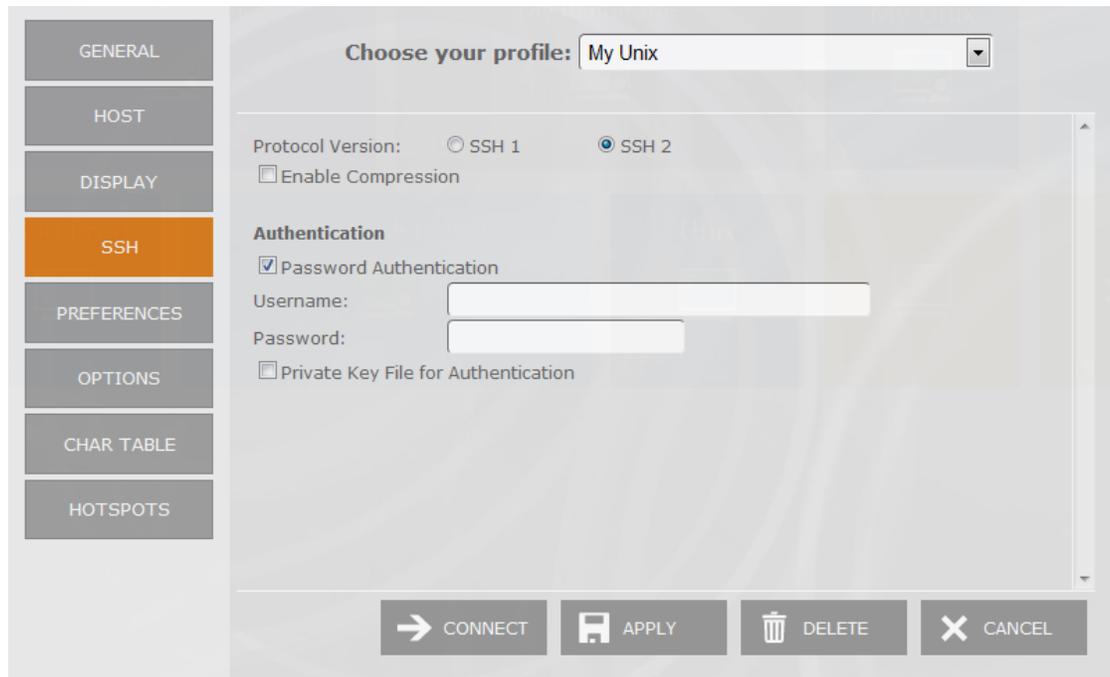
Read more:

- [Unix/VT Connections - General Settings \(Web Interface\)](#)
- [Unix/VT Connections - Host Settings \(Web Interface\)](#)
- [Unix/VT Connections - Backup Settings \(Web Interface\)](#)
- [Unix/VT Connections - Display Settings \(Web Interface\)](#)
- [Unix/VT Connections - Socks Settings \(Web Interface\)](#)
- [Unix/VT Connections - SSH Settings \(Web Interface\)](#)
- [Unix/VT Connections - Preference Settings \(Web Interface\)](#)

- [Unix/VT Connections - Options Settings \(Web Interface\)](#)
- [Unix/VT Connections - Char Table Settings \(Web Interface\)](#)
- [Unix/VT Connections - HotSpots Settings \(Web Interface\)](#)

5.1.2.1.7 SSH

In the 'SSH' tab you will find the following parameters:



This tab only becomes available when the 'SSH' option is checked in the ['Host' tab](#).

SSH Protocol Version

Choose one of the available versions: SSH 1 Only, SSH 1/2 or SSH 2 Only.

Enable Compression

Check this option to enable compression for the SSH protocol.

Authentication

Username

Enter an user name with access to the host via the SSH protocol.

Password

Enter the password for the specified user name.

Private Key File for Authentication

Check this option if you want to use a private key-file for the authentication process. You must enter the path of the file in the field below.

Read more:

- [Unix/VT Connections - General Settings \(Web Interface\)](#)
- [Unix/VT Connections - Host Settings \(Web Interface\)](#)
- [Unix/VT Connections - Backup Settings \(Web Interface\)](#)
- [Unix/VT Connections - Display Settings \(Web Interface\)](#)
- [Unix/VT Connections - Socks Settings \(Web Interface\)](#)
- [Unix/VT Connections - SSL Settings \(Web Interface\)](#)
- [Unix/VT Connections - Preference Settings \(Web Interface\)](#)
- [Unix/VT Connections - Options Settings \(Web Interface\)](#)
- [Unix/VT Connections - Char Table Settings \(Web Interface\)](#)
- [Unix/VT Connections - HotSpots Settings \(Web Interface\)](#)

5.1.2.1.8 Preferences

In the 'Preferences' tab you will find the following parameters:

The screenshot shows the 'Preferences' tab in a web interface. On the left, there is a vertical sidebar with buttons for 'GENERAL', 'HOST', 'DISPLAY', 'PREFERENCES' (which is highlighted in orange), 'OPTIONS', 'CHAR TABLE', and 'HOTSPOTS'. The main content area is titled 'Choose your profile:' with a dropdown menu showing 'My Unix'. Below this, there are several settings: 'Start Macro' (checkbox), 'Automatically start' (input field with '0') connections, 'Keyboard Map' (dropdown menu with '[Standard]'), 'Screen Style' (dropdown menu with '[z/Scope]'), 'Auto Reconnect' (checkbox), and 'Reconnection Delay' (input field with '10') seconds. At the bottom, there are four buttons: 'CONNECT', 'APPLY', 'DELETE', and 'CANCEL'.

Automatically Start [z] Connections

Allows you to specify the number of sessions of this connection that will be automatically established upon z/Scope start.

Keyboard Map

Select the Keyboard map you want to use for this connection.

Screen Style

Allows you to select a default [Screen Style](#) for this connection.

Auto Reconnect

Check this option if you would like to automatically reconnect to the host after logging off.

Reconnection Delay

Specify in this field the amount of time (in seconds) that you would like the system to take before auto reconnecting to the host.

Read more:

- [Unix/VT Connections - General Settings \(Web Interface\)](#)
- [Unix/VT Connections - Host Settings \(Web Interface\)](#)
- [Unix/VT Connections - Backup Settings \(Web Interface\)](#)
- [Unix/VT Connections - Display Settings \(Web Interface\)](#)
- [Unix/VT Connections - Socks Settings \(Web Interface\)](#)
- [Unix/VT Connections - SSL Settings \(Web Interface\)](#)
- [Unix/VT Connections - SSH Settings \(Web Interface\)](#)
- [Unix/VT Connections - Options Settings \(Web Interface\)](#)
- [Unix/VT Connections - Char Table Settings \(Web Interface\)](#)
- [Unix/VT Connections - HotSpots Settings \(Web Interface\)](#)

5.1.2.1.9 Options

In the 'Options' tab you will find the following parameters:

The screenshot displays the 'Options' configuration page. On the left, a vertical sidebar contains tabs for 'GENERAL', 'HOST', 'DISPLAY', 'PREFERENCES', 'OPTIONS' (highlighted in orange), 'CHAR TABLE', and 'HOTSPOTS'. The main panel is titled 'Choose your profile: My Unix'. It features several settings sections: 'Local Echo' with an unchecked checkbox; 'Auto repeat' with a checked checkbox; 'Break enabled' with a checked checkbox; 'Receive Replacements' with radio buttons for 'CR' (selected), 'LF', and 'CR/LF'; 'Send Replacements' with radio buttons for 'Enter sends' (CR, CR/LF), 'Backspace sends' (Delete, Backspace), 'Cursor keys' (Normal, Application), and 'Keypad' (CR, Application); and 'LineMode' with a dropdown menu set to 'Never'. At the bottom of the panel are four buttons: 'CONNECT' (with a right arrow), 'APPLY' (with a floppy disk icon), 'DELETE' (with a trash can icon), and 'CANCEL' (with an 'X' icon).

Modes

Local Echo

Check this option to allow local echoing of the characters when the server does not return echoes.

Auto repeat

Check this option to enable the auto repeat feature for the keyboard.

Break enabled

Check this option to be able to use the break command.

Receive Replacements

CR/LF is

Select the desired behaviour for the 'Carriage Return' (CR) and 'Line Feed' (LF) commands.

Send Replacements

Enter/Backspace sends

Select the desired behaviour for the 'Enter' and 'Backspace' keys.

Cursor/Keypad keys

Specify how the cursor and keypad keys are interpreted.

Line Mode

Mode

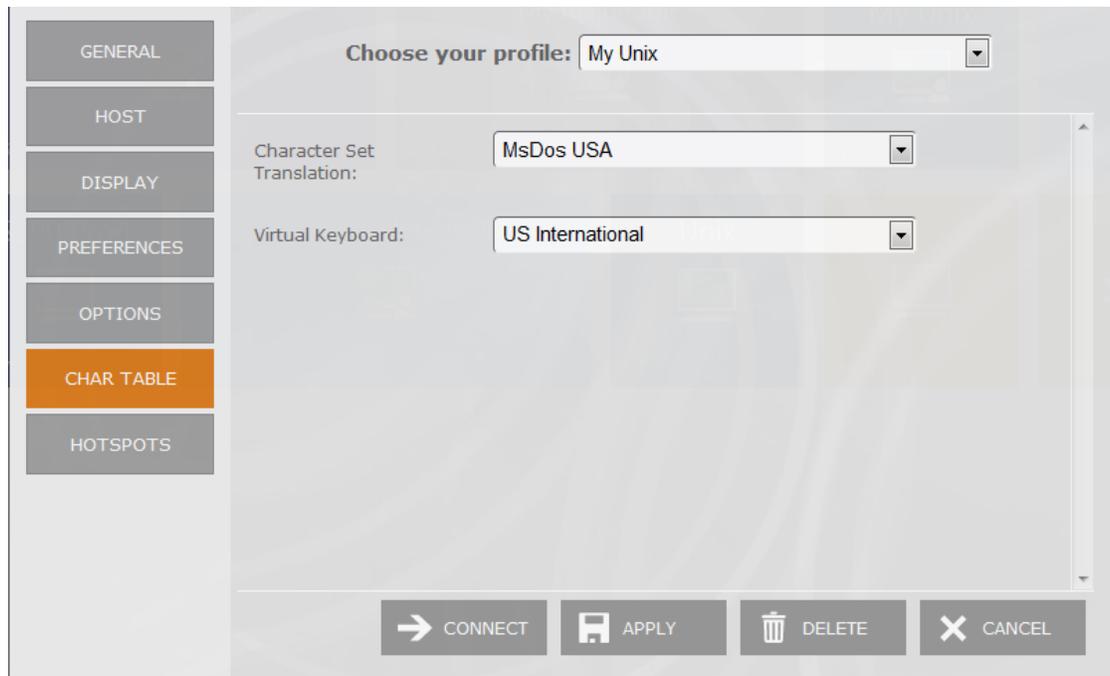
Indicate when LineMode will be activated from the options available in the combobox.

Read more:

- [Unix/VT Connections - General Settings \(Web Interface\)](#)
- [Unix/VT Connections - Host Settings \(Web Interface\)](#)
- [Unix/VT Connections - Backup Settings \(Web Interface\)](#)
- [Unix/VT Connections - Display Settings \(Web Interface\)](#)
- [Unix/VT Connections - Socks Settings \(Web Interface\)](#)
- [Unix/VT Connections - SSL Settings \(Web Interface\)](#)
- [Unix/VT Connections - SSH Settings \(Web Interface\)](#)
- [Unix/VT Connections - Preference Settings \(Web Interface\)](#)
- [Unix/VT Connections - Char Table Settings \(Web Interface\)](#)
- [Unix/VT Connections - HotSpots Settings \(Web Interface\)](#)

5.1.2.1.10 Char Table

In the 'Char Table' tab you will find the following parameters:



Character Set Translation

Select the character set that better suits your language needs.



When you select BiDi sets, a new option will be enabled so you can select the BiDi settings.

Virtual Keyboard

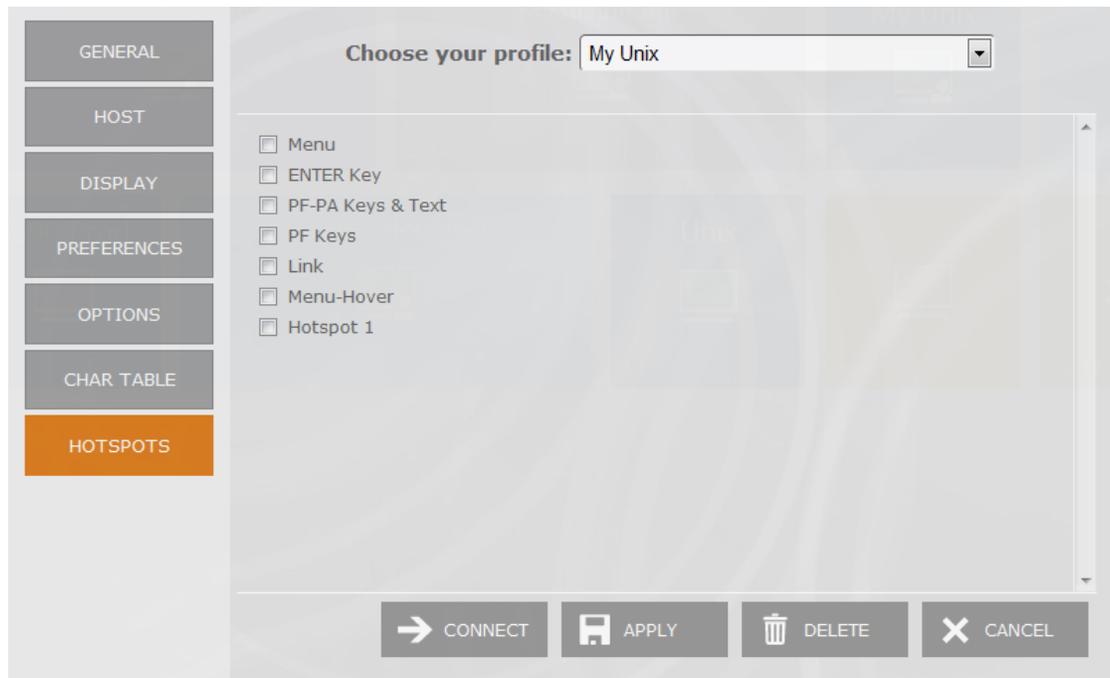
Select the language/format to be used on mobile devices virtual keyboards.

Read more:

- [Unix/VT Connections - General Settings \(Web Interface\)](#)
- [Unix/VT Connections - Host Settings \(Web Interface\)](#)
- [Unix/VT Connections - Backup Settings \(Web Interface\)](#)
- [Unix/VT Connections - Display Settings \(Web Interface\)](#)
- [Unix/VT Connections - Socks Settings \(Web Interface\)](#)
- [Unix/VT Connections - SSL Settings \(Web Interface\)](#)
- [Unix/VT Connections - SSH Settings \(Web Interface\)](#)
- [Unix/VT Connections - Preference Settings \(Web Interface\)](#)
- [Unix/VT Connections - Options Settings \(Web Interface\)](#)
- [Unix/VT Connections - HotSpots Settings \(Web Interface\)](#)

5.1.2.1.11 HotSpots

In the 'HotSpots' tab you can choose the HotSpots that will be available when working with the connection.



Read more:

- [Unix/VT Connections - General Settings \(Web Interface\)](#)
- [Unix/VT Connections - Host Settings \(Web Interface\)](#)
- [Unix/VT Connections - Backup Settings \(Web Interface\)](#)
- [Unix/VT Connections - Display Settings \(Web Interface\)](#)
- [Unix/VT Connections - Socks Settings \(Web Interface\)](#)
- [Unix/VT Connections - SSL Settings \(Web Interface\)](#)
- [Unix/VT Connections - SSH Settings \(Web Interface\)](#)
- [Unix/VT Connections - Preference Settings \(Web Interface\)](#)
- [Unix/VT Connections - Options Settings \(Web Interface\)](#)
- [Unix/VT Connections - Char Table Settings \(Web Interface\)](#)
- [HotSpots Settings](#)
- [Using HotSpots](#)

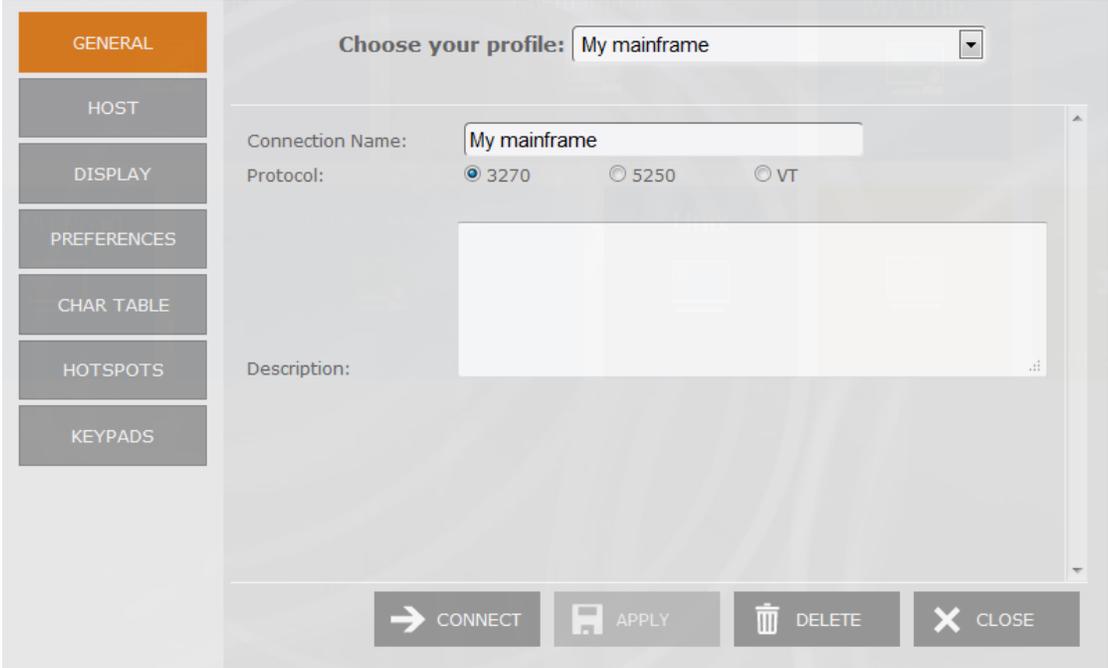
5.1.2.2 Editing an IBM Mainframe or AS/400 Connection

For a detailed description of the parameters available when editing Mainframe/AS400 connections on the web interface, consult the following sections:

- [General](#)
- [Host](#)
- [Backup](#)
- [Display](#)
- [Socks](#)
- [SSL](#)
- [Preferences](#)
- [Char Table](#)
- [Hotspots](#)
- [Keypads](#)

5.1.2.2.1 General

In the 'General' tab you will find the following parameters:



The screenshot displays the 'General' tab of the connection configuration interface. On the left, a vertical sidebar contains tabs for GENERAL, HOST, DISPLAY, PREFERENCES, CHAR TABLE, HOTSPOTS, and KEYPADS. The main area shows a dropdown menu for 'Choose your profile:' set to 'My mainframe'. Below this, the 'Connection Name:' field is filled with 'My mainframe'. The 'Protocol:' section has three radio buttons: '3270' (selected), '5250', and 'VT'. A large text area for 'Description:' is currently empty. At the bottom, there are four buttons: 'CONNECT' (with a right arrow), 'APPLY' (with a floppy disk icon), 'DELETE' (with a trash can icon), and 'CLOSE' (with an 'X' icon).

Connection name

Enter a name to identify the connection. This field is mandatory.

Protocol

Select '3270' for connections with IBM Mainframes or '5250' for connections with an AS/400.

Description

Here you can type a longer description for the connection.

Read more:

- [Mainframe/AS400 Connections - Host Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Backup Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Display Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Socks Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - SSL Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Preferences Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Char Table Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Hotspots Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Keypads Settings \(Web Interface\)](#)

5.1.2.2.2 Host

In the 'Host' tab you will find the following parameters:

The screenshot shows a web interface for configuring a host connection. On the left, there is a vertical sidebar with several tabs: GENERAL, HOST (highlighted in orange), DISPLAY, PREFERENCES, CHAR TABLE, HOTSPOTS, and KEYPADS. The main content area is titled 'Choose your profile:' and has a dropdown menu set to 'My mainframe'. Below this, there are two input fields: 'Address:' with the value 'mainframe.com.br' and 'Port:' with the value '23'. To the right of these fields is a large, faded image of a mainframe computer. Below the input fields, there are four checkboxes: 'Extended' (checked), 'Enable Keep Alive' (unchecked), 'SSL' (unchecked), 'Socks Firewall' (unchecked), and 'Has Backup' (unchecked). At the bottom of the interface, there are four buttons: 'CONNECT' (with a right arrow icon), 'APPLY' (with a floppy disk icon), 'DELETE' (with a trash can icon), and 'CANCEL' (with an 'X' icon).

Address

URL or IP address of the host computer.

Port

TCP port defined at the host computer for Telnet access.



Default Telnet port number is 23.

Extended

Enables Telnet Extended protocols (TN3270E or TN5250E). This enables 'User Id' and 'Password' input boxes for AS/400 connections.

Enable Keep alive

Enables keep-alive mechanism, needed for some Telnet servers to prevent disconnections.

SSL

Enables the SSL (Secure Sockets Layer) protocol for the host.



When you check this option, the ['SSL' tab](#) will automatically appear in the connection settings dialog. See [Using SSL](#). The SSL and SSH options are mutually exclusive.

Socks Firewall

Enables support for Socks firewall.



When you check this option, the ['Socks' tab](#) will automatically appear in the connection settings dialog.

Has Backup

Check this option if you would like to specify an alternate ip for this connection.



When you check this option, the ['Backup' tab](#) will automatically appear in the connection settings dialog.

Read more:

- [Mainframe/AS400 Connections - General Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Backup Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Display Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Socks Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - SSL Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Preferences Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Char Table Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - HotSpots Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Keypads Settings \(Web Interface\)](#)

5.1.2.2.3 Backup

In the 'Backup' tab you will see a table showing the list of alternate hosts for the connection. If the connection fails, z/Scope will connect to an alternate host, starting with the first one in the list. If an alternate host fails, z/Scope will connect to the next one in the list.

To configure these settings you will find the following parameters:

Choose your profile: My mainframe

Address:

Device Name:

Port:

Address	Device	Port
---------	--------	------

DELETE MODIFY + ADD

CONNECT APPLY CANCEL

Address

Enter here the IP address of the alternate host you would like to add for this connection

Device Name

Enter here the Device Name with which you would like to connect to this alternate host.

Port

Enter here the port number for this alternate host.

Add

Press this button to add the Address, Device Name and Port information entered above as a new host in the list. New hosts will be added last in the list.

Modify

Select a backup connection from the list and press this button to replace the selected host with the information entered in the fields 'Address', 'Device Name' and 'Port'.

Delete

Select a backup connection from the list and press this button to delete it from the list.

Read more:

- [Mainframe/AS400 Connections - General Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Host Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Display Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Socks Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - SSL Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Preferences Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Char Table Settings \(Web Interface\)](#)

- [Mainframe/AS400 Connections - HotSpots Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Keypads Settings \(Web Interface\)](#)

5.1.2.2.4 Display

In the 'Display' tab you will find the following parameters for IBM Mainframe connections (3270):

Display Type

Select the desired resolution for the host.

 Available resolutions vary according to the type of host you are connecting to.

Extended Attributes

Enables extended attributes for the connection.

Device Name

Specifies the logical unit or device name for the connection.

Device Name Suffix

Allows you to specify a suffix method to use for several connections.

Enable Graphics Escape character

Enables graphic characters on the connection.

For AS/400 connections (5250), you will find some additional setting options:

Choose your profile: My mainframe

Display Type: 24x80

Extended Attributes

SYSREQ Command Dialog

Device Name:

Device Name Suffix: None Letter (A-Z) Number (1-9)

Treat invalid characters as nulls

CONNECT APPLY CANCEL

SYSREQ Command Dialog

Only for AS/400 connections: enables a command line for the SysReq function.

Treat invalid characters as null

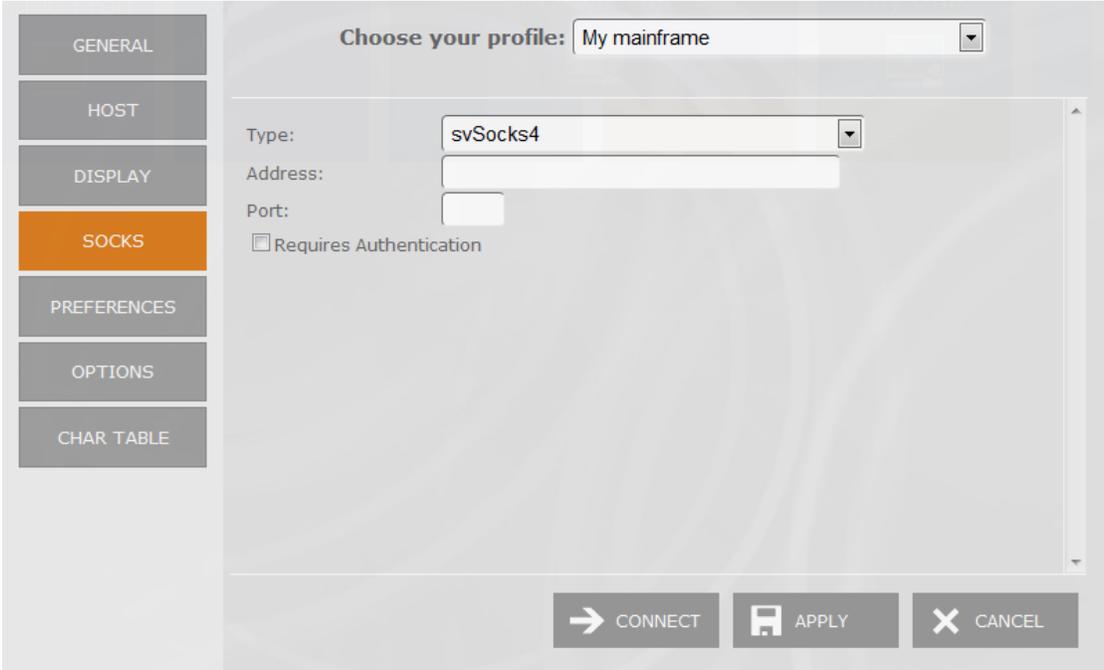
Check this option to have invalid characters substituted with null.

Read more:

- [Mainframe/AS400 Connections - General Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Host Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Backup Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Socks Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - SSL Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Preferences Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Char Table Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - HotSpots Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Keypads Settings \(Web Interface\)](#)

5.1.2.2.5 Socks

In the 'Socks' tab you will find the following parameters:



This tab only becomes available when the 'Socks' option is checked in the ['Host' tab](#).

Type

Indicates the type of Socks protocol you will be connecting to. z/Scope provides support for svSocks 4, 4A and 5 protocols.

Address

In this field you must enter the IP address of the Socks server.

Port

In this field you must enter the port number of the Socks service at the host.

Requires Authentication

When connecting with svSocks4A protocol and higher, you have the option of providing a User ID and a Password for authentication.

UserId

In this field you must enter your User ID.

Password

In this field you must enter your Password.

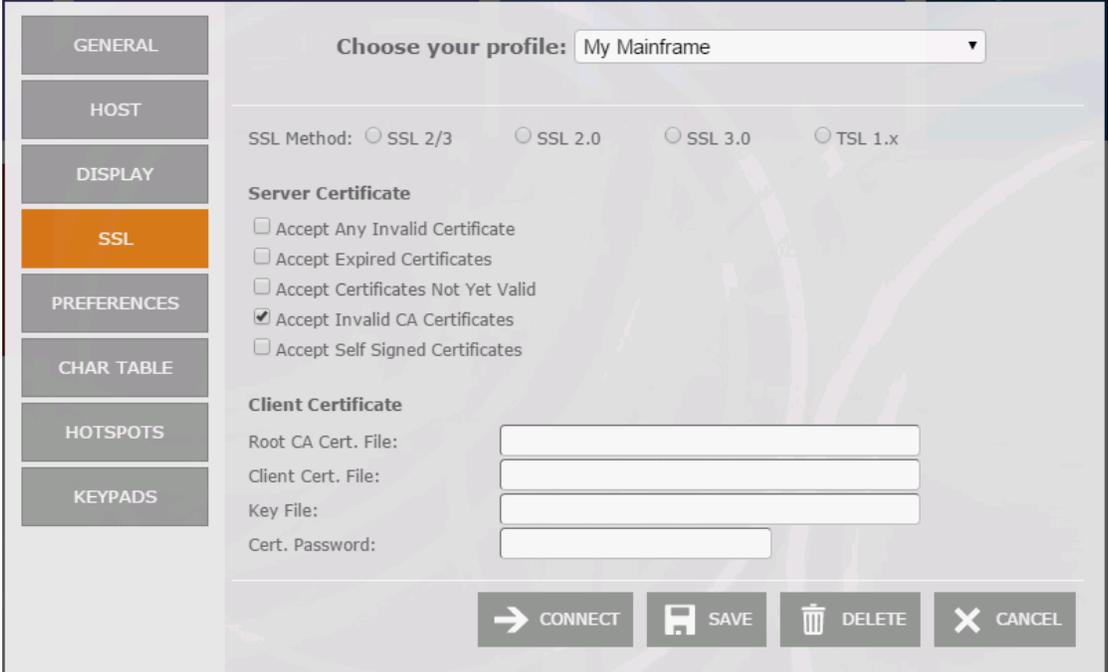
Read more:

- [Mainframe/AS400 Connections - General Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Host Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Backup Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Display Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - SSL Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Preferences Settings \(Web Interface\)](#)

- [Mainframe/AS400 Connections - Char Table Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - HotSpots Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Keypads Settings \(Web Interface\)](#)

5.1.2.2.6 SSL

In the 'SSL' tab you will find the following parameters:



This tab only becomes available when the 'SSL' option is checked in the ['Host' tab](#).

SSL Method

Choose one of the available methods shown: SSL 2.0, SSL 3.0 or TLS 1.x.

Server Certificate

The 'Display certificate' option controls whether to show the Certificate Info immediately after establishing the connection. The other options refer to the policy adopted when dealing with certificates that do not meet certain security conditions.

Client Certificate

Enter the file name of the certificate files that you own.

Read more:

- [Mainframe/AS400 Connections - General Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Host Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Backup Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Display Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Socks Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Preferences Settings \(Web Interface\)](#)

- [Mainframe/AS400 Connections - Char Table Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - HotSpots Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Keypads Settings \(Web Interface\)](#)

5.1.2.2.7 Preferences

In the 'Preferences' tab you will find the following parameters:

The screenshot shows a web-based configuration interface for zScope. On the left, a vertical sidebar contains tabs: GENERAL, HOST, DISPLAY, PREFERENCES (highlighted in orange), OPTIONS, and CHAR TABLE. The main content area is titled 'Choose your profile:' with a dropdown menu showing 'My mainframe'. Below this, several settings are listed: 'Automatically start' with a numeric input field set to '0' and the text 'connections.'; 'Keyboard Map:' with a dropdown menu set to '[Standard]'; 'Screen Style:' with a dropdown menu set to '[z/Scope]'; 'Auto Reconnect' with an unchecked checkbox; and 'Reconnection Delay:' with a numeric input field set to '10' and the text 'seconds.'. At the bottom right, there are three buttons: 'CONNECT' with a right-pointing arrow, 'APPLY' with a floppy disk icon, and 'CANCEL' with an 'X' icon.

Automatically Start [0] Connections

Allows you to specify the number of sessions of this connection that will be automatically established upon z/Scope start.

Keyboard Map

Select the Keyboard map you want to use for this connection.

Screen Style

Allows you to select a default [Screen Style](#) for this connection.

Auto Reconnect

Check this option if you would like to automatically reconnect to the host after logging off.

Reconnection Delay

Specify in this field the amount of time (in seconds) that you would like the system to take before auto reconnecting to the host.

Read more:

- [Mainframe/AS400 Connections - General Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Host Settings \(Web Interface\)](#)

- [Mainframe/AS400 Connections - Backup Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Display Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Socks Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - SSL Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Char Table Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - HotSpots Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Keypads Settings \(Web Interface\)](#)

5.1.2.2.8 Char Table

In the 'Char Table' tab you will find the following parameters:

The screenshot displays the 'Char Table' configuration page. On the left, a vertical sidebar contains tabs for 'GENERAL', 'HOST', 'DISPLAY', 'PREFERENCES', 'CHAR TABLE', 'HOTSPOTS', and 'KEYPADS'. The 'CHAR TABLE' tab is highlighted in orange. The main content area is titled 'Choose your profile: My mainframe' with a dropdown arrow. Below this, there are three settings: 'Code Page' with a dropdown menu showing 'United States [CP037/2]', a checkbox for 'Use External File' which is currently unchecked, and 'Virtual Keyboard' with a dropdown menu showing 'US International'. At the bottom of the main area, there are three buttons: 'CONNECT' with a right-pointing arrow, 'APPLY' with a floppy disk icon, and 'CANCEL' with an 'X' icon.

Code Page

Allows you to select an internal Character Conversion Table. See [Internal Conversion Tables](#).

Use External File

Mark this option if you to additionally enter the file name (.ebc) of an external Character Conversion Table to be used for the connection.

Virtual Keyboard

Select the language/format to be used on mobile devices virtual keyboards.

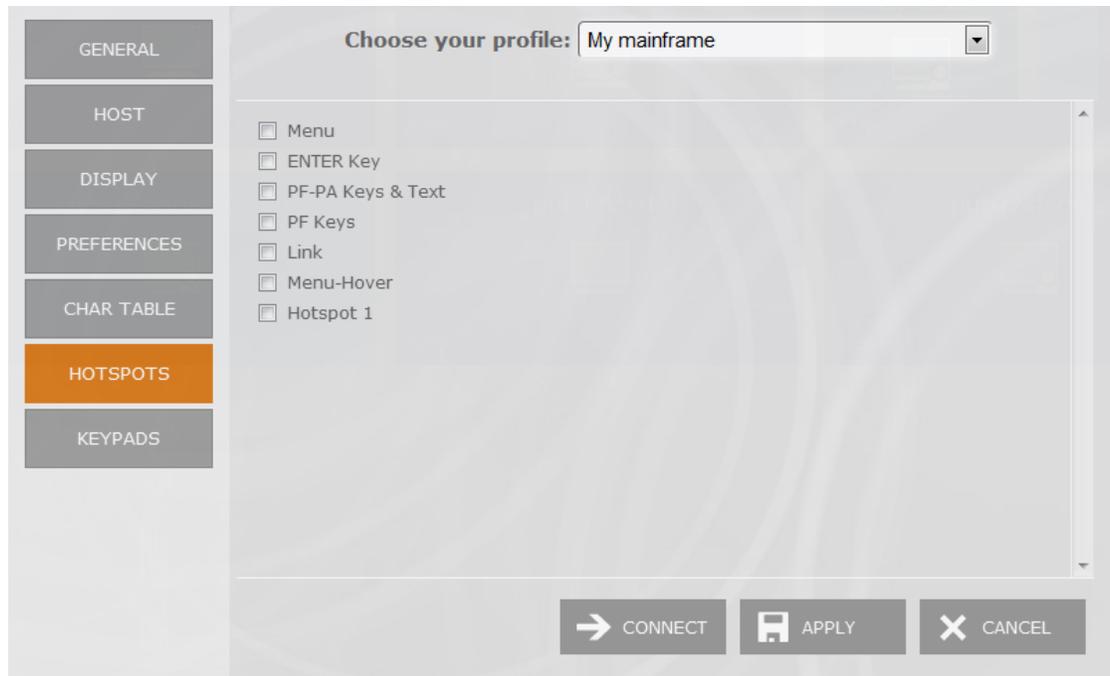
Read more:

- [Mainframe/AS400 Connections - General Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Host Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Backup Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Display Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Socks Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - SSL Settings \(Web Interface\)](#)

- [Mainframe/AS400 Connections - Preferences Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - HotSpots Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Keypads Settings \(Web Interface\)](#)

5.1.2.2.9 HotSpots

In the 'HotSpots' tab you can choose the HotSpots that will be available when working with the connection.



Related Topics

Read more:

- [Mainframe/AS400 Connections - General Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Host Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Backup Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Display Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Socks Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - SSL Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Preferences Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Char Table Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Keypads Settings \(Web Interface\)](#)
- [HotSpots Settings](#)
- [Using HotSpots](#)

5.1.2.2.10 Keypads

In the 'Keypads' tab you can choose the Keypads that will be available when working with the connection.

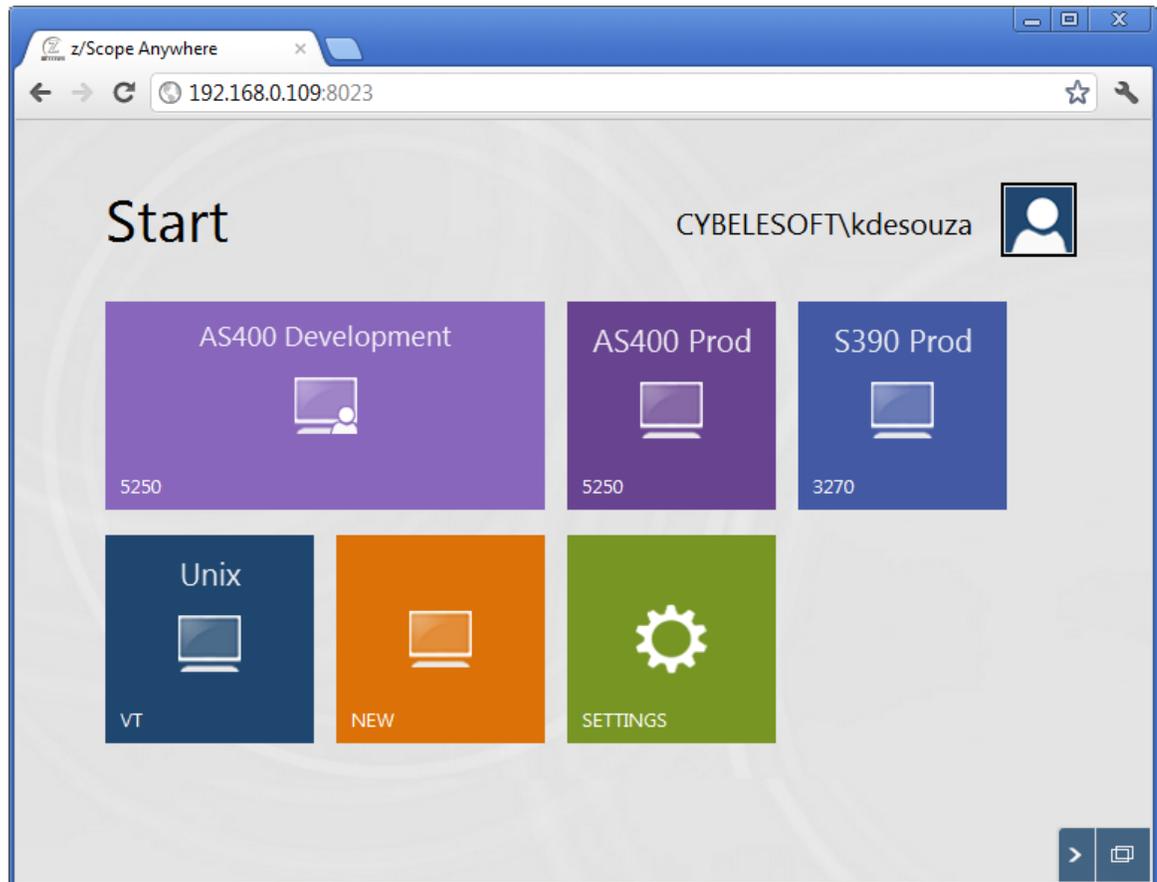


Read more:

- [Mainframe/AS400 Connections - General Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Host Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Backup Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Display Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Socks Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - SSL Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Preferences Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - Char Table Settings \(Web Interface\)](#)
- [Mainframe/AS400 Connections - HotSpots Settings \(Web Interface\)](#)
- [Keypads Settings](#)
- [Using Keypads](#)

5.1.3 Connecting

Follow the next steps and learn how to establish new sessions using the available connections:



1. To connect using one of the presented connections you have to click on the connection correspondent button.
2. If the configured parameters were set right, the emulation display will be displayed and you will be able to interact with it.



The screenshot shows a terminal window titled "z/Scope Anywhere" with a browser address bar containing "192.168.0.109:8023". The main content is a "System Request" menu for "System: TS400". The menu lists several options, with "80. Disconnect job" and "90. Sign off" highlighted by a left-pointing arrow. Below the menu is a "Selection" prompt with a cursor. At the bottom, there are keyboard shortcuts "F3=Exit F12=Cancel" and a copyright notice "(C) COPYRIGHT IBM CORP. 1980, 2002.". The terminal status bar at the bottom shows "ONLINE", "Overwrite 20,07", and "www.netshare400.com:23".

```
z/Scope Anywhere x
192.168.0.109:8023
System Request
System: TS400
Select one of the following:
  1. Display sign on for alternative job
  2. End previous request
  3. Display current job
  4. Display messages
  5. Send a message
  6. Display system operator messages
  7. Display work station user
  80. Disconnect job
  90. Sign off
Selection
  _
F3=Exit  F12=Cancel
(C) COPYRIGHT IBM CORP. 1980, 2002.
ONLINE      Overwrite 20,07      www.netshare400.com:23
```

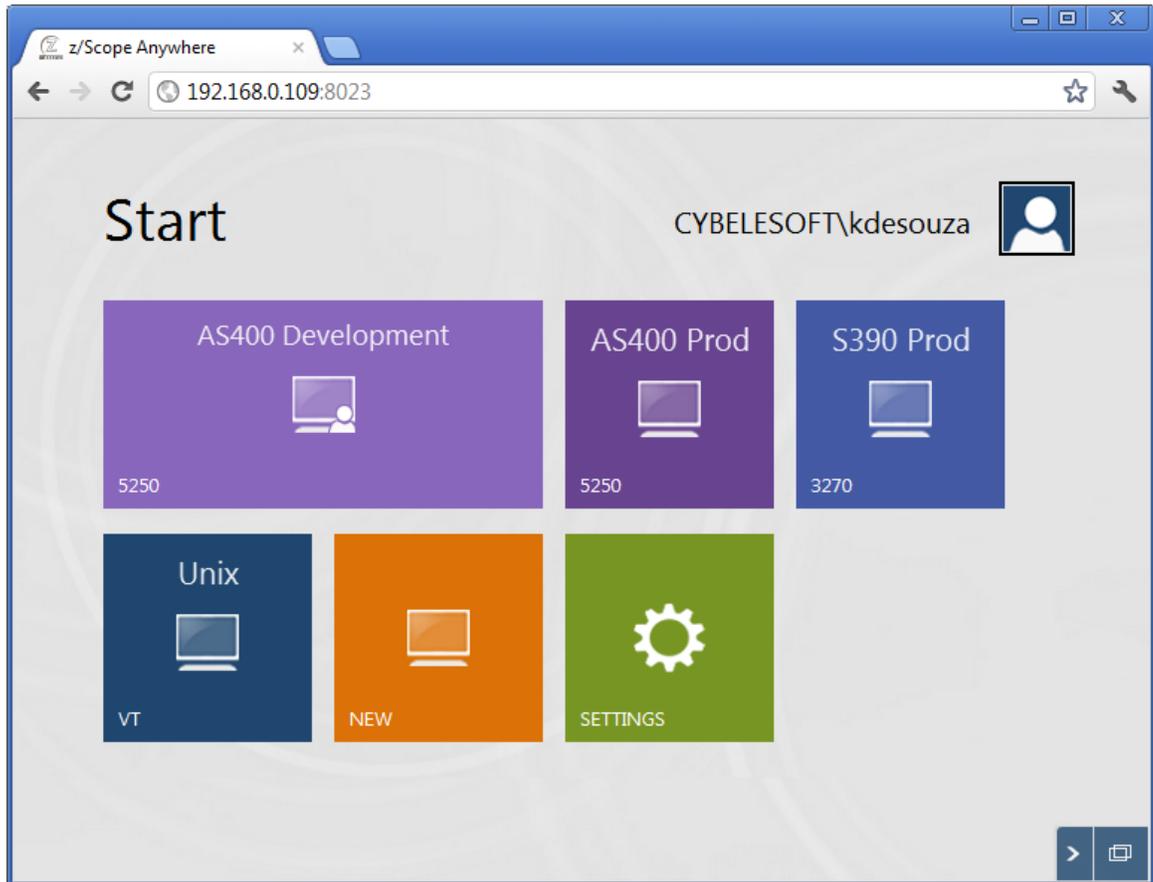
If there were no connections available on the Start Page, learn how to [Set up a new private connection](#).

Related Topics:

- [Customizing a connection](#)
- [Connection buttons](#)
- [Open Sessions list](#)

5.1.4 Deleting a private connection

To delete a private connection on the user web interface, first you need to open the Settings, by clicking on the [Settings button](#), located on the [Start page](#) view. Only private connections can be deleted from the user interface. The shared connections can be only managed by the system administrator on the "Configuration Manager" tool.



Choose the private connection to be deleted on the top of the screen (field 'Choose your profile') and click on the bottom 'Delete' button.

The screenshot shows a configuration window for a connection profile named 'AS400 Development'. On the left is a sidebar with menu items: GENERAL (highlighted), HOST, DISPLAY, PREFERENCES, CHAR TABLE, HOTSPOTS, and KEYPADS. The main area has a dropdown menu for 'Choose your profile:' set to 'AS400 Development'. Below this are fields for 'Connection Name:' (AS400 Development) and 'Protocol:' with radio buttons for 3270, 5250 (selected), and VT. A large text area for 'Description:' is empty. At the bottom are four buttons: CONNECT, APPLY, DELETE, and CLOSE.

 Connections deletion is not undoable, which means that once you delete a particular connection, it will be permanently lost.

Read more:

- [Editing a Unix/VT connection](#)
- [Editing an IBM Mainframe or AS/400 Connection](#)
- [Connecting](#)

5.2 HotSpots

HotSpots is a very useful feature that allows the user to mouse-enable the emulation display by placing point-and-click controls that provide access to screen commands otherwise only accessible through keyboard commands.

z/Scope includes several pre-defined HotSpots, and at the same time an interface to create as many new user-defined HotSpots as required.

To learn more about the HotSpots feature, read the next topic:

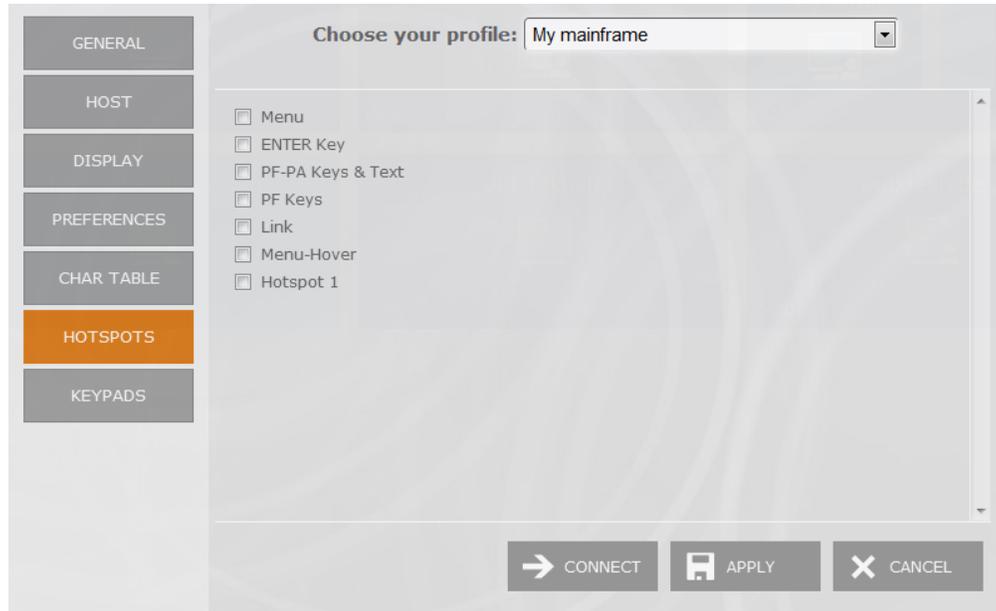
- [Using HotSpots](#)
- [Enabling HotSpots](#)

Related Topics:

- [Create/Editing a Hotspot](#)
- [Hotspots Settings](#)

5.2.1 Enabling HotSpots

To enable hotspots for a specific connection go to the [Start Page](#) and click on the [Settings](#) button.



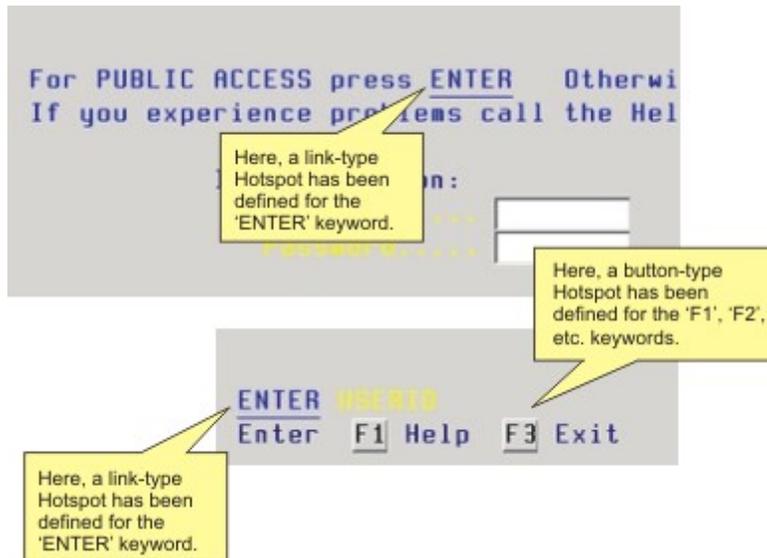
1. Select the connection on the field "Choose your profile".
2. Click on the "Hotspots" tab.
3. Check the hotspots you want to enable.
4. Connect or Apply the changes:
 - a. Click on the "Apply" if you want these changes to be persisted. All the following connections done using this profile, will have the selected hotspots as active.
 - b. Click on the "Connect" if you want only the next session to have the hotspots enabled.

Related Topics:

- [Using HotSpots](#)
- [Hotspots Settings](#)
- [Creating/Editing a HotSpot](#)

5.2.2 Using HotSpots

The HotSpots that you created for a particular screen will appear directly on that screen in an in-line manner, as you can see in the screenshots below.



The way HotSpots appear on the screen depends on the display format specified in the [Style tab in HotSpot Settings](#).

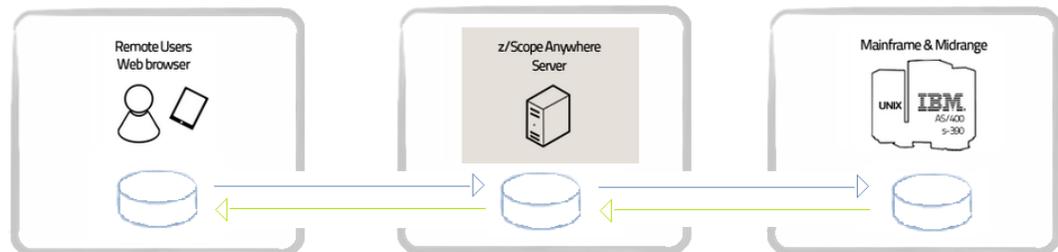
 In order to be able to use your HotSpot within a connection, you must first enable the HotSpot for that particular connection from the [Settings Preferences Tab \(3270, 5250\)](#) or [Settings Preferences Tab \(VT\)](#).

Related Topics:

- [Enabling HotSpots](#)
- [Hotspots Settings](#)
- [Creating/Editing a HotSpot](#)

5.3 File Transfer

The File Transfer has to be performed in two steps. In order to upload a file into the host, you first have to load it on z/Scope Anywhere Server. The same happens with the downloads, it is necessary to download the file from the host to z/Scope Anywhere Server and then download it to the Web Browser.



On the next topics you will get to know the "File Transfer Manager" and learn how to perform Downloads and Uploads from it:

- [File Transfer Manager](#)
 - [Queue](#)
 - [Files](#)
 - [History](#)
- [Downloading](#)
- [Uploading](#)

Related Topics

- [Permissions Settings](#)

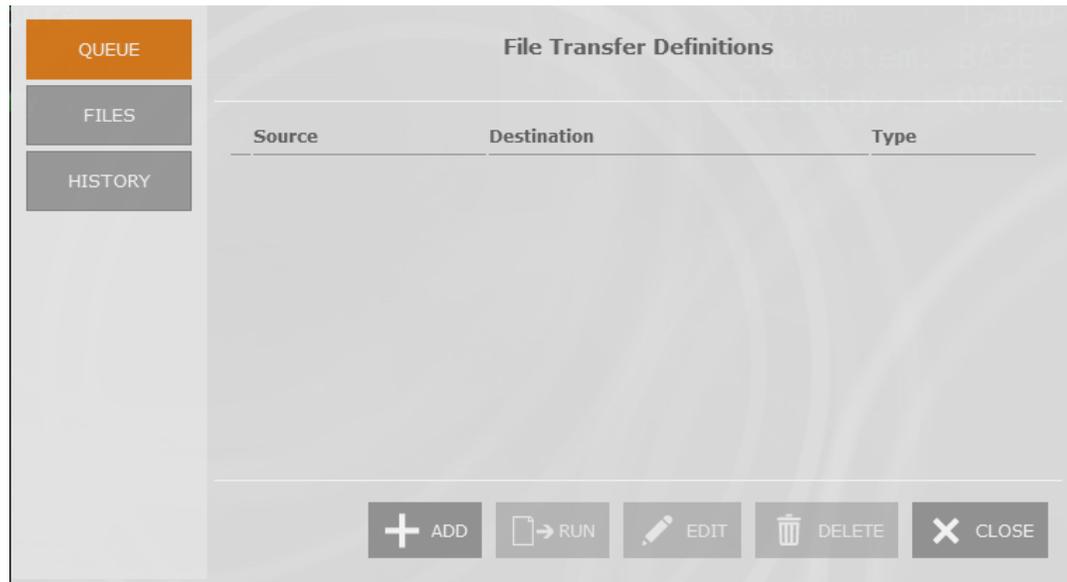
5.3.1 File Transfer Manager

To transfer a file on z/Scope Anywhere you should first open a connection to the host you want to exchange files with, and click on the bottom context menu "File Transfer" item.



File Transfer

Click the File Transfer bottom context menu and the "File Transfer Manager" will be presented.



The [Queue](#) tab allows you to exchange files with the host, by adding them into a queue and then running it to send them to the host.

On the [Files](#) tab, you can upload files to z/Scope Anywhere Server and download the existing files to the web browser.

The [History](#) tab will show you all the operations (uploads/downloads) performed with the host.

5.3.1.1 Queue

The File Transfer Manager allows you to transfer files using the FTP protocol. It enables you to define the parameters for a particular file transfer job and then integrate that job into a Static Queue that contains all your previously defined file transfers jobs.

You can then easily mark the desired jobs from the Static Queue to the Interactive and start transferring them with a single click. The File Manager will automatically keep a [History](#) of all the transfers.



Add

Click on this button to add a new File Transfer Job to the Queue. Select the protocol you want to transfer the files through.

The available parameters will vary according to the protocol you choose:

- [FTP](#)
- [IND\\$FILE](#)
- [KERMIT](#)
- [X-MODEM](#)
- [Y-MODEM](#)
- [Z-MODEM](#)

The new file transfer job you specified will now appear in the Static Queue.



Run

Use this button to start transferring the files:

1. Select the desired files in the Static Queue.
2. Click on the 'Run' button.

Those files that have been selected will be transferred. To transfer all files listed, click on the 'Start All' button.

**Edit**

Select the Job you want to modify on the Static Queue and click on the "Edit" button. The [FTP](#) topic explains each option of this protocol. The changes will be automatically applied to the queued item as you make them.

**Delete**

Select the Job you want to delete from the Static Queue and click on the "Delete" button.

**Close**

Closes the "File Transfer Manager" dialog.

5.3.1.1.1 FTP

To add a new FTP File Transfer Job to the Queue, follow these steps:

1. Open the Connection to the host you want to make a file transfer with.
2. Click on the File Transfer bottom context menu item.



FILE TRANSFER

File Transfer

Click to have access to the "File Transfer" Manager.

3. If you are going to make an upload, remember to first [upload the file](#) into z/Scope Anywhere Server, on the Files tab.
4. Go to the Queue tab and click on the Add button, to insert a new job to the Static Queue.

Type tab:

The screenshot shows a dialog box titled "File Transfer Definitions" with a sub-header "Add Transfer". On the left, there is a vertical sidebar with four tabs: "TYPE" (highlighted in orange), "OPTIONS", "SECURITY", and "FILENAMES". The main area of the dialog contains the following fields:

- "Protocol:" with a dropdown menu set to "FTP".
- "Direction:" with two radio buttons: "Receive" (selected) and "Send".
- A checkbox labeled "Associate this file transfer with a connection" which is currently unchecked.

At the bottom right of the dialog, there are two buttons: "OK" and "CLOSE".

Protocol

Select the FTP protocol.

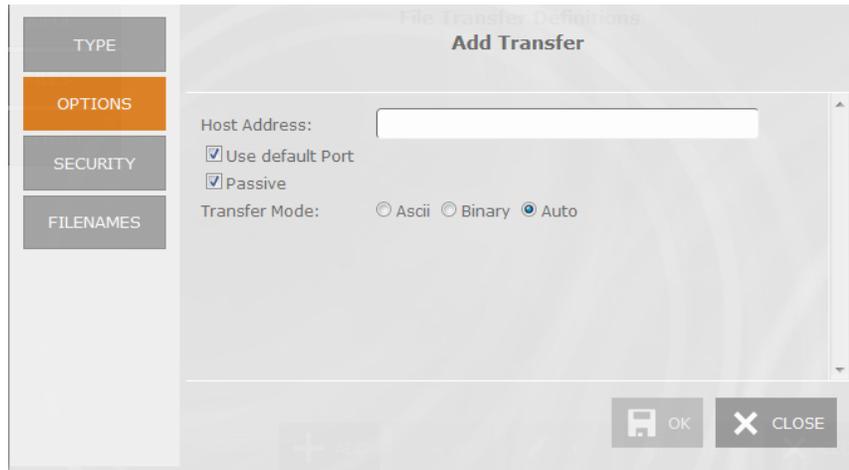
Direction

The Direction indicates if you are setting a download (RECEIVE) from the host to z/Scope Anywhere Server, or an upload (SEND) from z/Scope Anywhere Server to the host.

Associate this file transfer with a connection

This option allows you associate the File Transfer job with one specific connection. This job will only be shown on the selected connection.

Options tab:



Host

URL or IP address of the host machine that will act as the FTP server.

Port

TCP port defined for FTP access at the remote computer.

 Default FTP port number is 21.

Passive

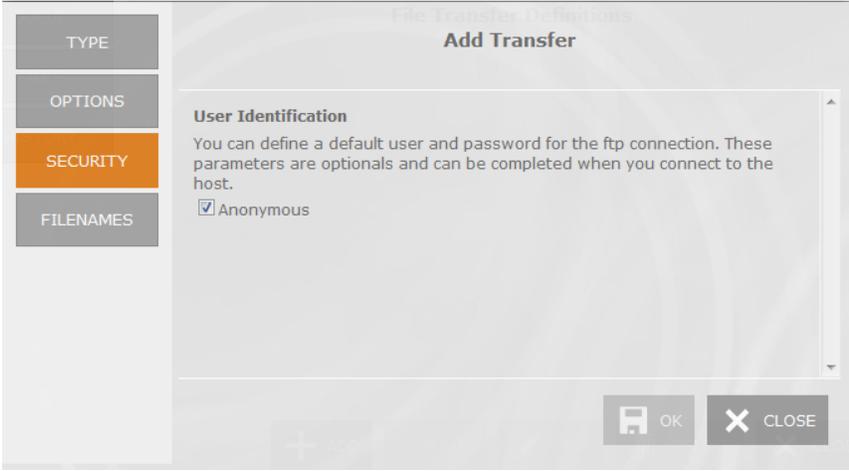
If this option is checked, a PASV command will be sent to tell the host it is working in passive mode.

Transfer Mode

Select the appropriate transfer mode (ASCII/Binary/Auto). By default, all FTP connections will be set to 'Auto'.

Once you defined the file transfer options, you must enter the User Identification.

[Security tab:](#)



The screenshot shows a dialog box titled "Add Transfer" with a sidebar on the left containing tabs: TYPE, OPTIONS, SECURITY (highlighted in orange), and FILENAMES. The main content area is titled "User Identification" and contains the following text: "You can define a default user and password for the ftp connection. These parameters are optional and can be completed when you connect to the host." Below this text is a checked checkbox labeled "Anonymous". At the bottom right of the dialog are "OK" and "CLOSE" buttons.

Anonymous

Check this option if you prefer to log in anonymously.

UserID

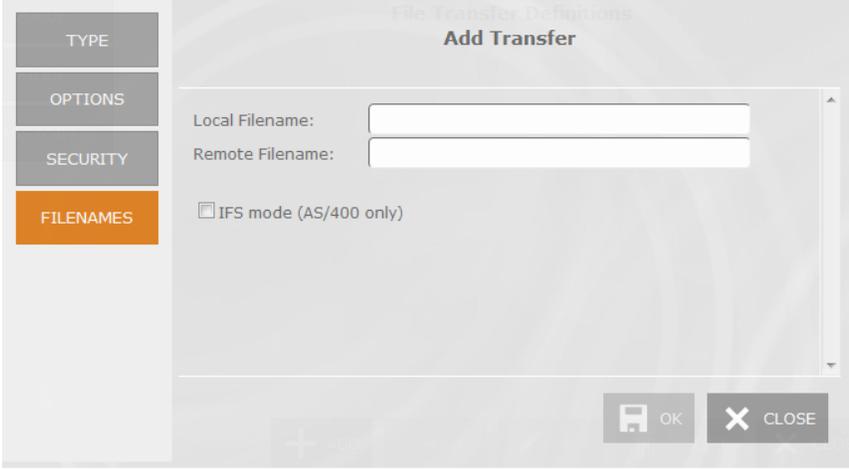
In this field you must enter your User ID.

Password

In this field you must enter your Password.

And finally you should inform the source and destination files.

Filenames tab:



The screenshot shows the same "Add Transfer" dialog box, but with the "FILENAMES" tab selected in the sidebar. The main content area contains two text input fields: "Local Filename:" and "Remote Filename:". Below these fields is a checkbox labeled "IFS mode (AS/400 only)". At the bottom right of the dialog are "OK" and "CLOSE" buttons.

Local Filename

In this field you must type a name for the file stored at the remote host.

Remote Filename

In this field you must type a name for the file stored on z/Scope Anywhere Server. All the available files are listed on the [Files](#) tab.

IFS Mode

This parameter works only on AS/400.

Once you finish to set up the file transfer job, click on the "OK" button and it will be shown in the Static Queue.

In the future, whenever you need to change the File Transfer settings you can select this job and click the Queue 'Edit' button.

5.3.1.1.2 IND\$FILE

To add a new IND\$File File Transfer Job to the Queue, follow these steps:

1. Open the Connection to the host you want to make a file transfer with.
2. Click on the File Transfer bottom context menu item.



FILE TRANSFER

File Transfer

Click to have access to the "File Transfer" Manager.

3. If you are going to make an upload, remember to first [upload the file](#) into z/Scope Anywhere Server, on the Files tab.
4. Go to the Queue tab and click on the Add button, to insert a new job to the Static Queue.

Type tab:

A screenshot of the 'Add Transfer' dialog box. The dialog has a title bar 'File Transfer Definitions' and a subtitle 'Add Transfer'. On the left, there are three tabs: 'TYPE' (selected), 'OPTIONS', and 'FILES'. The 'TYPE' tab contains a 'Protocol:' dropdown menu with 'IND\$FILE' selected, a 'Direction:' section with radio buttons for 'Receive' (selected) and 'Send', and a checkbox labeled 'Associate this file transfer with a connection'. At the bottom right, there are 'OK' and 'CLOSE' buttons.

Protocol

Select the IND\$File protocol.

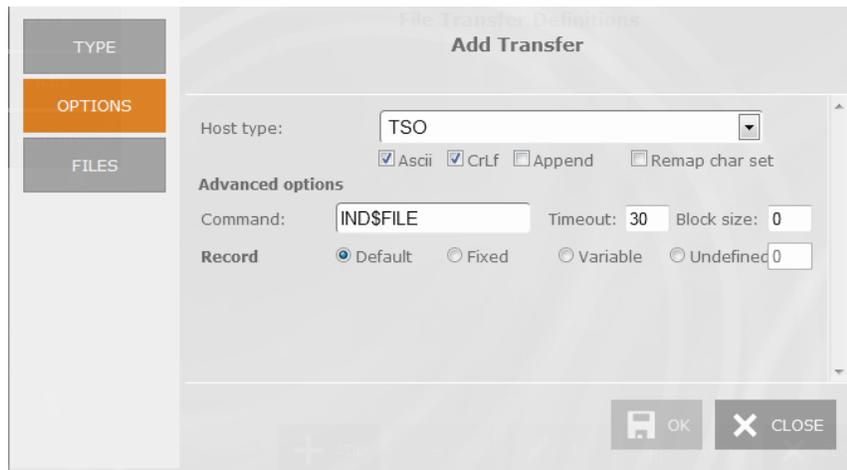
Direction

The Direction indicates if you are setting a download (RECEIVE) from the host to z/Scope Anywhere Server, or an upload (SEND) from z/Scope Anywhere Server to the host.

Associate this file transfer with a connection

This option allows you associate the File Transfer job with one specific connection. This job will only be shown on the selected connection.

Options tab:



Host type

In the combobox next to the IND\$FILE radio button you must select the type of host you are transferring to/from: VM/CMS, TSO or CICS.

ASCII

Check this option to specify that the file stored on the local PC in ASCII form is to be converted to EBCDIC during transfer to the host, and converted from EBCDIC to ASCII during transfer to the PC (needed for all non-binary file transfers).

CRLF

Check this option to specify that carriage return/line feed should be recognized and deleted before file is stored on the host. It also deletes trailing spaces and inserts carriage return/line feed characters as the last two characters in a line when a file is stored on the PC.

Append

Allows you to append a PC file to the end of an OS data set, or an OS data set to the end of a PC file. This option is available only when transferring to/from TSO hosts.

Command

In this field you can change the name of the File Transfer program as it is defined in the host machine.

Timeout

Specify an the amount of time (in seconds) that the program will attempt to connect.

Block Size

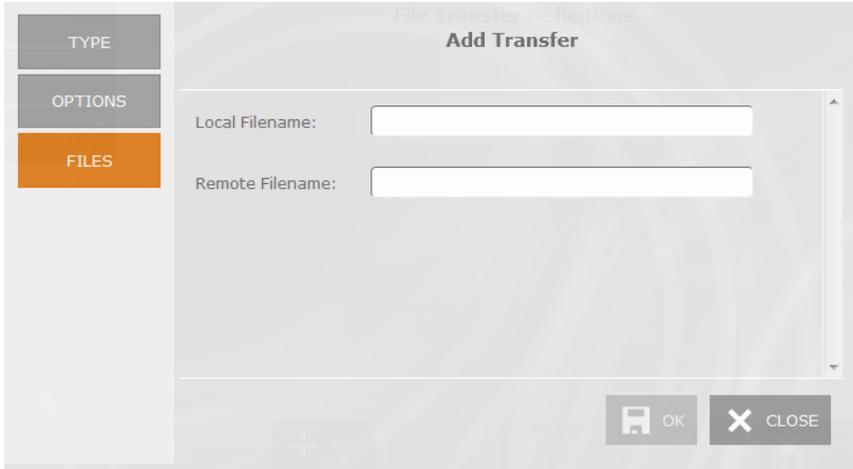
Specifies the block size of the TSO host data set. Enter the length of a data block in bytes.

Record

Specifies the record format for the data set. Available options are:

- Default-length records.
- Fixed-length records (you must enter the length manually on the input field).
- Variable-length records.
- Undefined-length records.

Files tab:



The screenshot shows a software interface titled "File Transfer Definitions" with a sub-header "Add Transfer". On the left, there is a vertical sidebar with three tabs: "TYPE", "OPTIONS", and "FILES". The "FILES" tab is highlighted in orange. The main content area contains two text input fields: "Local Filename:" and "Remote Filename:". At the bottom right of the dialog, there are two buttons: "OK" (with a floppy disk icon) and "CLOSE" (with an 'X' icon).

Local Filename

In this field you must type a name for the file stored at the remote host.

Remote Filename

In this field you must type a name for the file stored on z/Scope Anywhere Server. All the available files are listed on the [Files](#) tab.

Once you finish to set up the file transfer job, click on the "OK" button and it will be shown in the Static Queue.

In the future, whenever you need to change the File Transfer settings you can select this job and click the Queue 'Edit' button.

5.3.1.1.3 KERMIT

To add a new KERMIT File Transfer Job to the Queue, follow these steps:

1. Open the Connection to the host you want to make a file transfer with.
2. Click on the File Transfer bottom context menu item.



FILE TRANSFER

File Transfer

Click to have access to the "File Transfer" Manager.

3. If you are going to make an upload, remember to first [upload the file](#) into z/Scope Anywhere Server, on the Files tab.
4. Go to the Queue tab and click on the Add button, to insert a new job to the Static Queue.

Type tab:

A screenshot of the 'Add Transfer' dialog box. The dialog has a title bar 'File Transfer Definitions' and a subtitle 'Add Transfer'. On the left, there is a sidebar with three tabs: 'TYPE' (selected), 'OPTIONS', and 'FILES'. The main area contains the following fields: 'Protocol:' with a dropdown menu showing 'XMODEM'; 'Direction:' with radio buttons for 'Receive' (selected) and 'Send'; and a checkbox labeled 'Associate this file transfer with a connection'. At the bottom right, there are two buttons: 'OK' and 'CLOSE'.

Protocol

Select the KERMIT protocol.

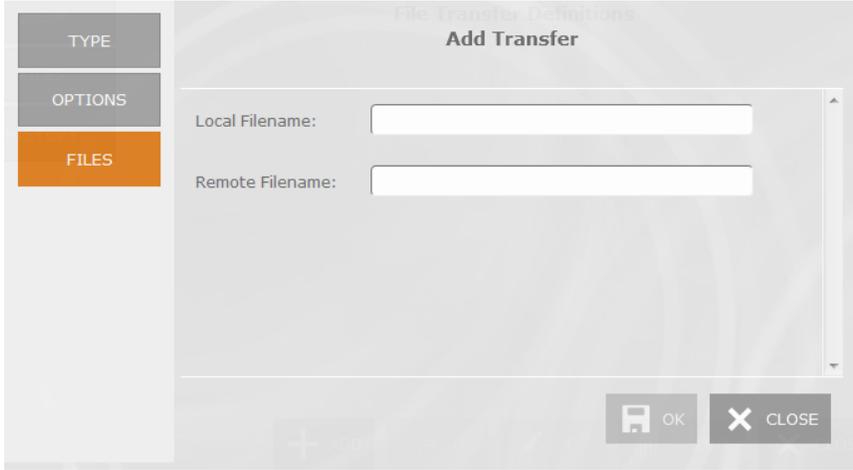
Direction

The Direction indicates if you are setting a download (RECEIVE) from the host to z/Scope Anywhere Server, or an upload (SEND) from z/Scope Anywhere Server to the host.

Associate this file transfer with a connection

This option allows you associate the File Transfer job with one specific connection. This job will only be shown on the selected connection.

Files tab:



The screenshot shows a dialog box titled "File Transfer Definitions" with a sub-header "Add Transfer". On the left, there is a vertical sidebar with three tabs: "TYPE", "OPTIONS", and "FILES". The "FILES" tab is currently selected and highlighted in orange. The main area of the dialog contains two text input fields: "Local Filename:" and "Remote Filename:". At the bottom right of the dialog, there are two buttons: "OK" (with a floppy disk icon) and "CLOSE" (with an 'X' icon).

Local Filename

In this field you must type a name for the file stored at the remote host.

Remote Filename

In this field you must type a name for the file stored on z/Scope Anywhere Server. All the available files are listed on the [Files](#) tab.

Once you finish to set up the file transfer job, click on the "OK" button and it will be shown in the Static Queue.

In the future, whenever you need to change the File Transfer settings you can select this job and click the Queue 'Edit' button.

5.3.1.1.4 XMODEM

To add a new XMODEM File Transfer Job to the Queue, follow these steps:

1. Open the Connection to the host you want to make a file transfer with.
2. Click on the File Transfer bottom context menu item.



FILE TRANSFER

File Transfer

Click to have access to the "File Transfer" Manager.

3. If you are going to make an upload, remember to first [upload the file](#) into z/Scope Anywhere Server, on the Files tab.
4. Go to the Queue tab and click on the Add button, to insert a new job to the Static Queue.

Type tab:

A screenshot of the 'Add Transfer' dialog box. The dialog has a title bar 'File Transfer Definitions' and a subtitle 'Add Transfer'. On the left, there is a sidebar with three tabs: 'TYPE' (selected), 'OPTIONS', and 'FILES'. The main area contains the following fields: 'Protocol:' with a dropdown menu set to 'XMODEM'; 'Direction:' with radio buttons for 'Receive' (selected) and 'Send'; and a checkbox labeled 'Associate this file transfer with a connection' which is currently unchecked. At the bottom right, there are two buttons: 'OK' and 'CLOSE'.

Protocol

Select the XMODEM protocol.

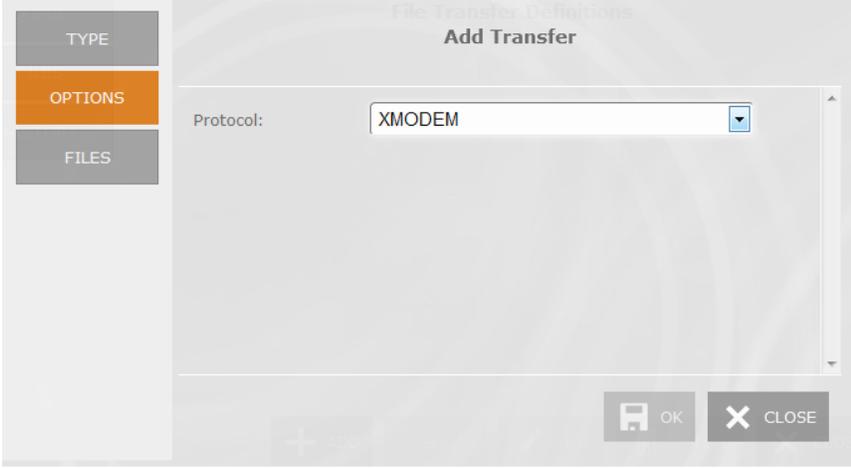
Direction

The Direction indicates if you are setting a download (RECEIVE) from the host to z/Scope Anywhere Server, or an upload (SEND) from z/Scope Anywhere Server to the host.

Associate this file transfer with a connection

This option allows you associate the File Transfer job with one specific connection. This job will only be shown on the selected connection.

Options tab:

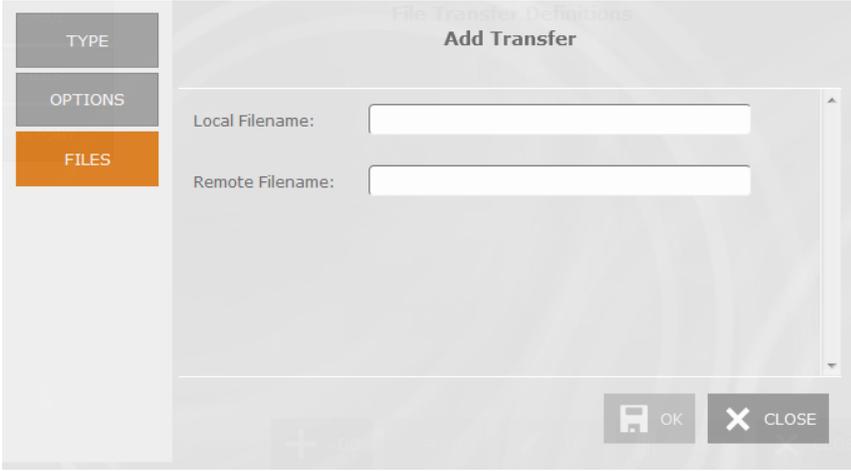


The screenshot shows a dialog box titled "File Transfer Definitions" with a sub-header "Add Transfer". On the left, there is a vertical sidebar with three tabs: "TYPE", "OPTIONS", and "FILES". The "OPTIONS" tab is currently selected and highlighted in orange. The main area of the dialog contains a "Protocol:" label followed by a dropdown menu that has "XMODEM" selected. At the bottom right of the dialog, there are two buttons: "OK" and "CLOSE".

Protocol

Choose from the combobox the specific X-MODEM protocol you need to use: XMODEM, XMODEM-CRC, XMODEM-1K, XMODEM-1K-G.

Files tab:



The screenshot shows the same "File Transfer Definitions" dialog box, but now the "FILES" tab is selected and highlighted in orange. The main area of the dialog contains two text input fields: "Local Filename:" and "Remote Filename:". Both fields are currently empty. The "OK" and "CLOSE" buttons are visible at the bottom right.

Local Filename

In this field you must type a name for the file stored at the remote host.

Remote Filename

In this field you must type a name for the file stored on z/Scope Anywhere Server. All the available files are listed on the [Files](#) tab.

Once you finish to set up the file transfer job, click on the "OK" button and it will be shown in the Static Queue.

In the future, whenever you need to change the File Transfer settings you can select this job and click the Queue 'Edit' button.

5.3.1.1.5 YMODEM

To add a new YMODEM File Transfer Job to the Queue, follow these steps:

1. Open the Connection to the host you want to make a file transfer with.
2. Click on the File Transfer bottom context menu item.



FILE TRANSFER

File Transfer

Click to have access to the "File Transfer" Manager.

3. If you are going to make an upload, remember to first [upload the file](#) into z/Scope Anywhere Server, on the Files tab.
4. Go to the Queue tab and click on the Add button, to insert a new job to the Static Queue.

Type tab:

A screenshot of the 'Add Transfer' dialog box in the z/Scope Anywhere application. The dialog has a sidebar on the left with three tabs: 'TYPE' (selected), 'OPTIONS', and 'FILES'. The main area is titled 'File Transfer Definitions' and 'Add Transfer'. It contains a 'Protocol:' dropdown menu set to 'YMODEM', a 'Direction:' section with radio buttons for 'Receive' (selected) and 'Send', and a checkbox labeled 'Associate this file transfer with a connection' which is currently unchecked. At the bottom right, there are 'OK' and 'CLOSE' buttons.

Protocol

Select the YMODEM protocol.

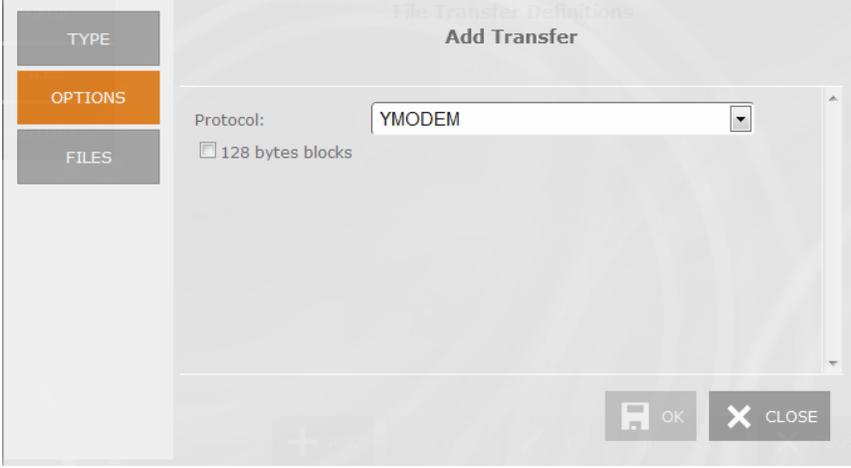
Direction

The Direction indicates if you are setting a download (RECEIVE) from the host to z/Scope Anywhere Server, or an upload (SEND) from z/Scope Anywhere Server to the host.

Associate this file transfer with a connection

This option allows you associate the File Transfer job with one specific connection. This job will only be shown on the selected connection.

Options tab:



The screenshot shows the 'Add Transfer' dialog box with the 'Options' tab selected. The 'Protocol' dropdown menu is set to 'YMODEM'. There is a checkbox for '128 bytes blocks' which is currently unchecked. At the bottom right, there are 'OK' and 'CLOSE' buttons.

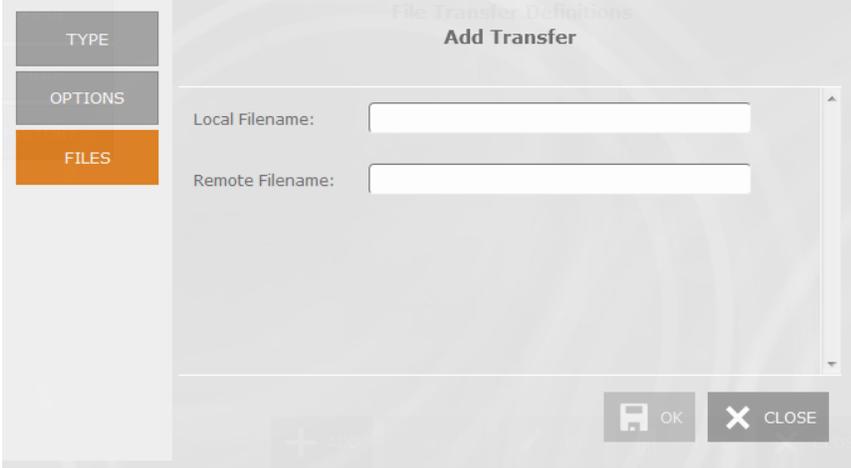
Protocol

Choose from the combobox the specific Y-MODEM protocol you need to use: YMODEM or YMODEM-G.

128 bytes blocks

Check this option to enable the transfers using blocks of 128 bytes.

Files tab:



The screenshot shows the 'Add Transfer' dialog box with the 'Files' tab selected. There are two text input fields: 'Local Filename:' and 'Remote Filename:'. At the bottom right, there are 'OK' and 'CLOSE' buttons.

Local Filename

In this field you must type a name for the file stored at the remote host.

Remote Filename

In this field you must type a name for the file stored on z/Scope Anywhere Server. All the available files are listed on the [Files](#) tab.

Once you finish to set up the file transfer job, click on the "OK" button and it will be

shown in the Static Queue.

In the future, whenever you need to change the File Transfer settings you can select this job and click the Queue 'Edit' button.

5.3.1.1.6 ZMODEM

To add a new ZMODEM File Transfer Job to the Queue, follow these steps:

1. Open the Connection to the host you want to make a file transfer with.
2. Click on the File Transfer bottom context menu item.



FILE TRANSFER

File Transfer

Click to have access to the "File Transfer" Manager.

3. If you are going to make an upload, remember to first [upload the file](#) into z/Scope Anywhere Server, on the Files tab.
4. Go to the Queue tab and click on the Add button, to insert a new job to the Static Queue.

Type tab:

The screenshot shows a dialog box titled "File Transfer Definitions" with a sub-header "Add Transfer". On the left, there is a sidebar with three tabs: "TYPE" (selected and highlighted in orange), "OPTIONS", and "FILES". The main area contains the following fields:

- "Protocol:" with a dropdown menu set to "ZMODEM".
- "Direction:" with two radio buttons: "Receive" (selected) and "Send".
- A checkbox labeled "Associate this file transfer with a connection", which is currently unchecked.

At the bottom right of the dialog, there are two buttons: "OK" (with a save icon) and "CLOSE" (with an 'X' icon).

Protocol

Select the ZMODEM protocol.

Direction

The Direction indicates if you are setting a download (RECEIVE) from the host to z/Scope Anywhere Server, or an upload (SEND) from z/Scope Anywhere Server to the host.

Associate this file transfer with a connection

This option allows you associate the File Transfer job with one specific connection. This job will only be shown on the selected connection.

Options tab:



8K

Check this option to enable 8K blocks.

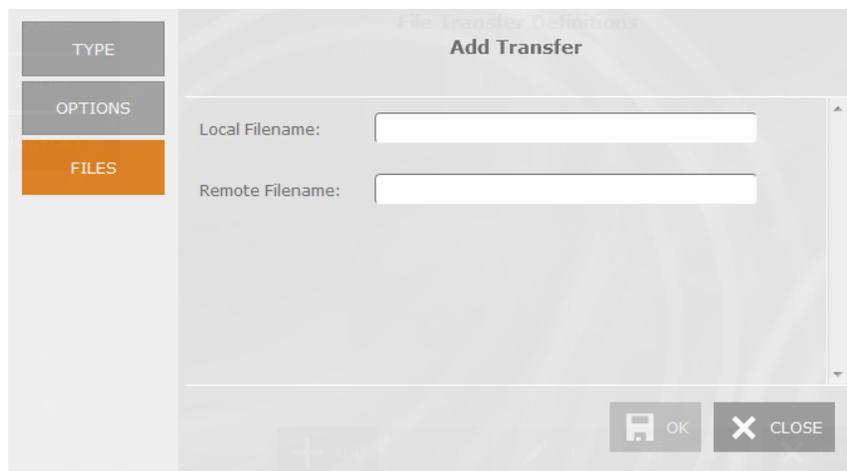
ESC control

Check this option if you would like to escape all control chars. Unchecked, control chars will not be transformed but taken as part of the file.

Override file, if exists

Check this option if you would like the transferred file to overwrite an existing file in case they have the same name.

Files tab:



Local Filename

In this field you must type a name for the file stored at the remote host.

Remote Filename

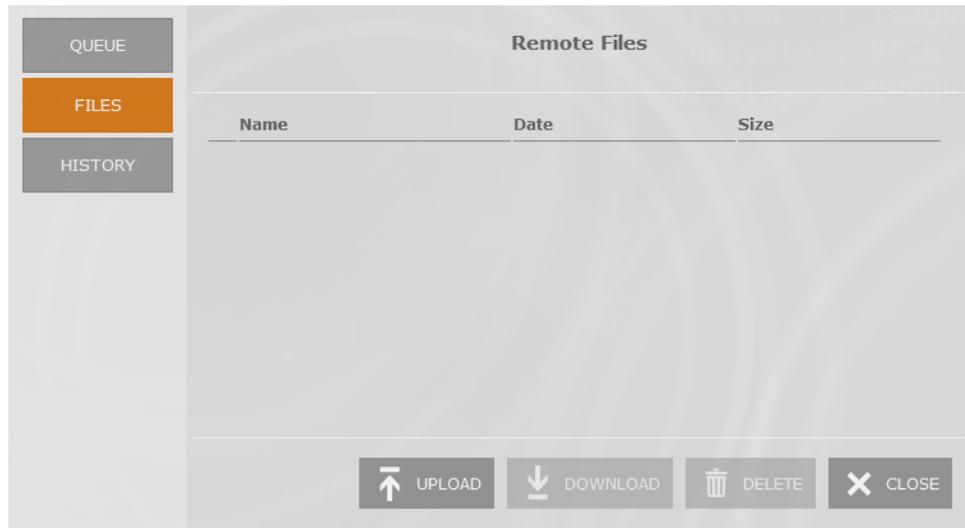
In this field you must type a name for the file stored on z/Scope Anywhere Server. All the available files are listed on the [Files](#) tab.

Once you finish to set up the file transfer job, click on the "OK" button and it will be shown in the Static Queue.

In the future, whenever you need to change the File Transfer settings you can select this job and click the Queue 'Edit' button.

5.3.1.2 Files

The File Transfer Manager "Files tab" shows you all the files that have been downloaded and uploaded into z/Scope Anywhere Server on a list called "Remote Files". You may upload new files from your web browser or also download the existing files to take them locally, through your web browser.



Upload

Click on this button and the Upload dialog will be presented:



Select the File to upload on the magnifier icon and press Upload. The file will be listed on the "Remote Files" list.



Download

Select one of the files and click on the Download button. The selected file will be downloaded to the local device, through your web browser.

The download button will be enable only after you select one of the listed files.



Delete

Select one of the files and click on the Delete button in order to delete one of the remote listed files.

The delete button will be enable only after you select one of

the listed files.



Close

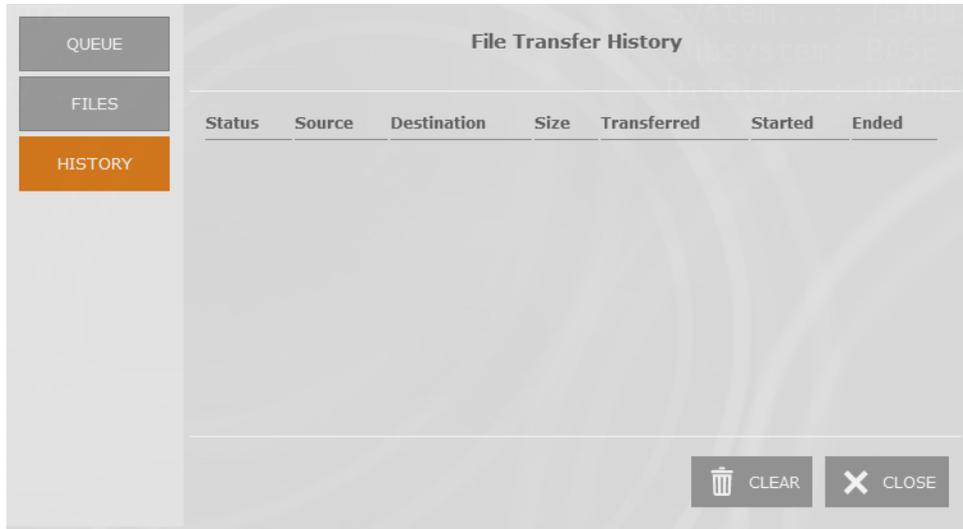
Closes the "File Transfer Manager" dialog.

Read more:

- [File Transfer Manager Queue](#)
- [File Transfer Manager History](#)

5.3.1.3 History

The File Transfer Manager "History tab" shows you all the performed File Transfers with the hosts.



Clear

Click on Clear button to erase the whole File Transfer History.



Close

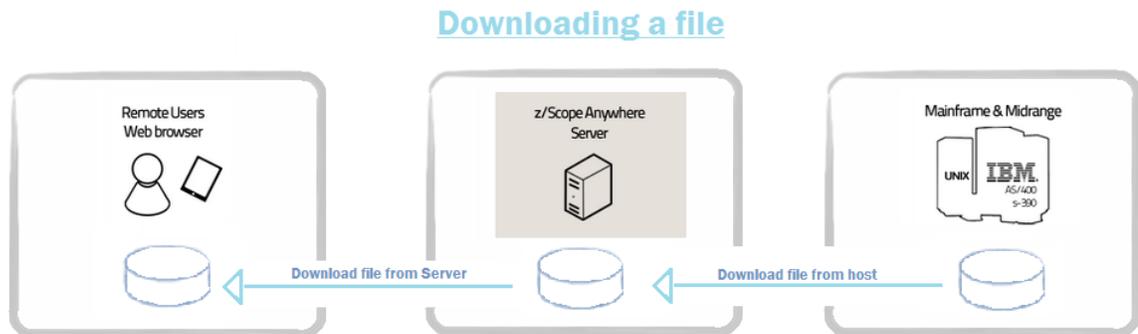
Closes the "File Transfer Manager" dialog.

Read more:

- [File Transfer Manager Queue](#)
- [File Transfer Manager Files](#)

5.3.2 Downloading

A download from the host to your web browser should be done in two steps, as shown on the image below:



Download the file from the host:

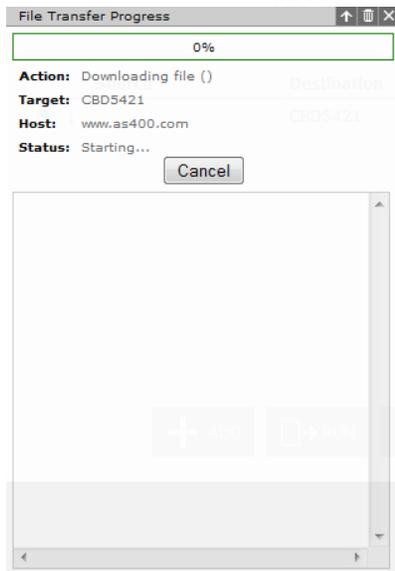
1. Open an existing connection on the [Start Page](#).
2. Click on the File Transfer context menu item.



File Transfer

Click the File Transfer bottom and the "File Transfer Manager" will be presented.

3. On the [Queue tab](#), click on the "Add" button to create a new job. Set the direction to "Receive". Set up all the other parameters.
4. Select the created job and click on the bottom "Run" button. The progress will be presented to you as the image below:



5. Once the File Transfer has finished, you will be redirected to the History tab, where this job status will be shown.

Download the file from z/Scope Anywhere server:

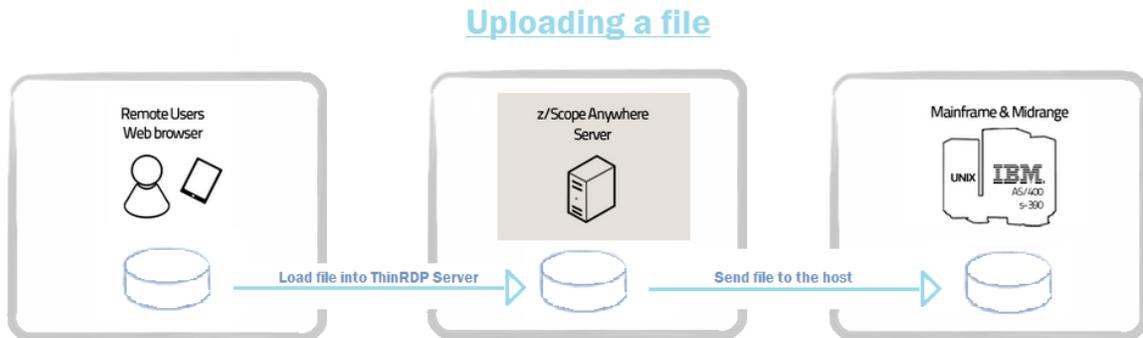
1. If the file reception was successful, you can download it from the server to your web browser.
2. Go to the Files tab and select the file just received from the host.
3. Click on the Download button and the file will be downloaded to your local device, through the web browser.

Read more:

- [File Transfer Manager](#)
- [Uploading Files](#)

5.3.3 Uploading

An upload from your local device to the host should be done in two steps, as shown on the image below:



Load file into z/Scope Anywhere Server:

1. Open an existing connection on the [Start Page](#).
2. Click on the File Transfer context menu item.



File Transfer

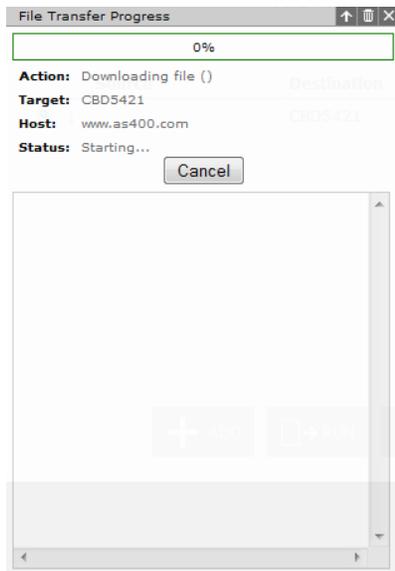
Click the File Transfer bottom and the "File Transfer Manager" will be presented.

3. Go to the [File tab](#), and click on the "Upload" button. Wait for the file to be completely uploaded into z/Scope Anywhere Server.
4. Observe that the file is now listed on the "Remote Files" list.

Send file to the host:

Once you have the file loaded on z/Scope Anywhere Server you can send it to the host.

1. Go to the [Queue tab](#) and click on the "Add" button to create a new job. Set the direction to "Send". Set up all the other parameters.
4. Select the created job and click on the bottom "Run" button. The progress will be presented to you as the image below:



5. Once the File Transfer has finished, you will be redirected to the History tab, where this job status will be logged.

Read more:

- [File Transfer Manager](#)
- [Downloading Files](#)

5.4 Keyboard Support

An important aspect of z/Scope is its compatibility and support for a wide range of standard keyboards such as IBM, EXTRA, IRMA and RUMBA.

z/Scope gives you full control and customization of the keyboard by allowing you to re-map virtually any key to new combination of different keys and even mouse clicks!

It also allows you to define keyboard shortcuts to z/Scope's main features such as Macros.

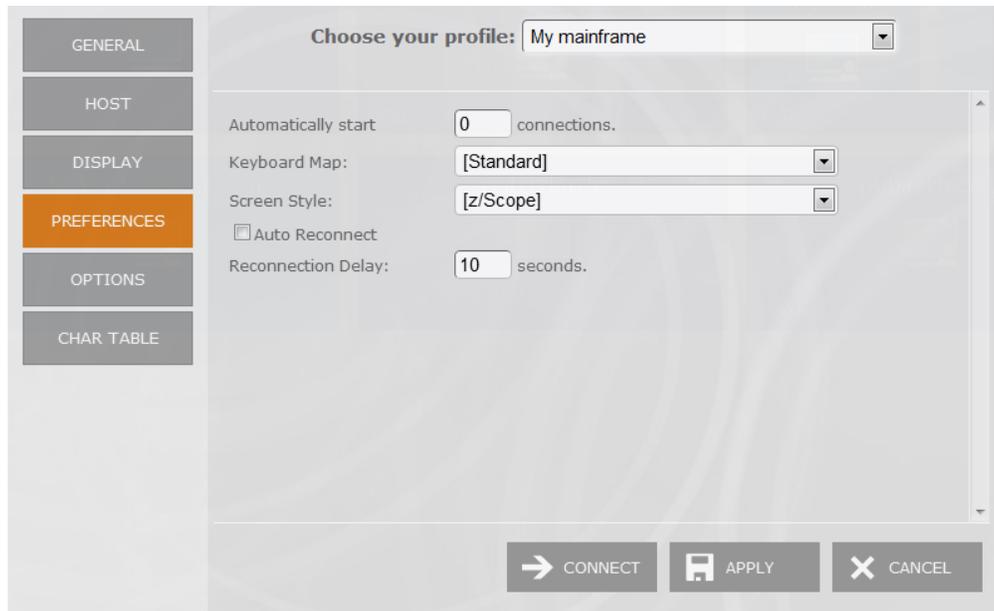
- [Selecting the Keyboard](#)

Related Topics

- [Keyboard Settings](#)
- [IBM Mainframes preferences](#) or [Unix/VT/SSH preferences](#)

5.4.1 Selecting the Keyboard

To select the keyboard for a specific connection go to the [Start Page](#) and click on the [Settings](#) button.



1. Select the connection on the field "Choose your profile".
2. Click on the "Preferences" tab.
3. Select the desired Keyboard on the field "Keyboard map".
4. Connect or Apply the changes:
 - a. Click on the "Apply" if you want the change to be persisted. All the following connections done using this profile will use the selected Keyboard.
 - b. Click on the "Connect" if you want only the next session to use the selected keyboard.

Related Topics

- [Keyboard Settings](#)
- [IBM Mainframes preferences](#) or [Unix/VT/SSH preferences](#)

5.5 Keypads

Keypads are a useful tool that enables the user to substitute host commands with mouse clicks. Together with [HotSpots](#), Keypads integrate a set of exciting features designed to bring you the most convenient mouse-enabled terminal emulation capabilities.

To learn more about the Keypads feature, go to the next topics:

- [Using Keypads](#)
- [Enabling Keypads](#)

Related Topics

- [Create/Editing a Keypad](#)
- [Keypads Settings](#)
- [Permissions Settings](#)

5.5.1 Enabling Keypads

You may enable keypads for all connections from the [Start Page](#) or for a specific connection from the [Connection View](#).

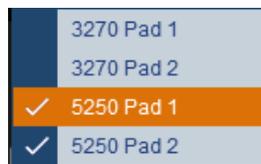
From the Connection View



1. Open the Settings
Click the Settings button present on the Connection View toolbar and a menu will be presented.

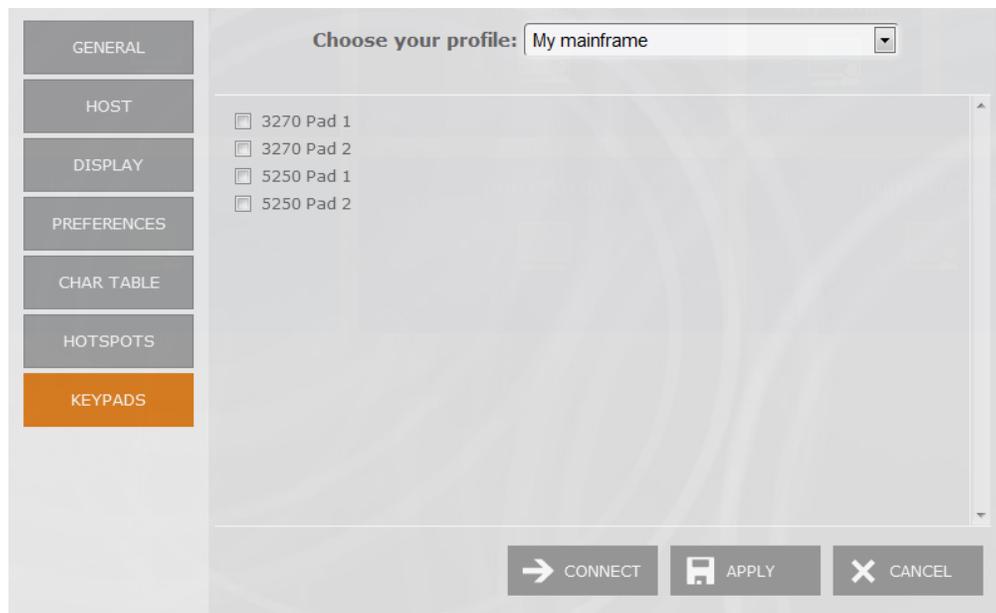


2. Keypads
 - a. Click on the "Keypads" menu option to open the available Keypads:



- b. Check the Keypads you want to enable, by clicking on them.
- c. Move the mouse down, over the Settings button to hide the menu and keep using the session.

From the Start Page



1. Click on the Start Page [Settings](#) button.

2. Select the connection on the field "Choose your profile".
3. Click on the "Keypads" tab.
4. Check the keypads you want to enable.
5. Connect or Apply the changes:
 - a. Click on the "Apply" if you want these changes to be persisted. All the following connections done using this profile, will have the selected keypads as active.
 - b. Click on the "Connect" if you want only the next session to have the keypads enabled.

Related Topics

- [Using Keypads](#)
- [Keypads Settings](#)

5.5.2 Using Keypads

Keypads that are available for a particular connection will be automatically shown under the Keypad [toolbar](#) icon ([Connection View](#)).



Mouse Over

Leave the mouse over the Keypads icon to see all enabled keypads, as the image below.



Related Topics

- [Enabling Keypads](#)
- [Keypads Settings](#)

5.6 Macros

Macros are sequences of keystrokes sent to the mainframe that are recorded so you can then reproduce them by a simple mouse click.

They are useful when you need to automate a sequence of commands so you don't have to re-type the same commands many times.

To learn more about Macros, read the following topics:

- [Creating a Macro](#)
- [Using a Macro](#)
- [Managing Macros](#)

Related Topics

- [Macros Settings](#)
- Debugging a Macro
- [Permissions Settings](#)

5.6.1 Creating a Macro

The Macro creation process is very simple. You can create it on an active connection through the [Connection view](#) toolbar.

Creating a macro



1. Open the Settings
Click the Settings button and a menu will be presented.



2. Record
Click on the "Record" button, execute the actions to be automated and send them to the host (enter key).



3. Save the macro
Click on 'Save' button, also accessible through the settings button.

4. Name the macro
No more actions will be recorded, and you will be prompted for a name to the new macro. Enter a name and click 'OK'.



Once pressed, the 'Record' button will be replaced by the 'Save' button.



All macros saved for a particular connection will be available by clicking on the Macro's toolbar button. See also: [Using Macros](#).

To learn how to use and manage the macros you have created, see the next topics:

- [Managing Macros](#)
- [Using Macros](#)

Related Topics

[Macros Settings](#)

5.6.2 Using Macros

In order to run one of the available macros for the current connection, click on the Macro's icon present on the Connections View toolbar.



Click on the macro you want (in this example you have the Exit, the Intro and the Validate macros) to execute and the keystroke sequence contained in the macro will be automatically reproduced within the active screen. Keep in mind that macros can only be triggered within the connection they were created.

Related Topics

[Creating a Macro](#)
[Managing Macros](#)

5.6.3 Managing Macros

You can rename and delete a macro from the [Connection view](#) screen, through the Setting button.

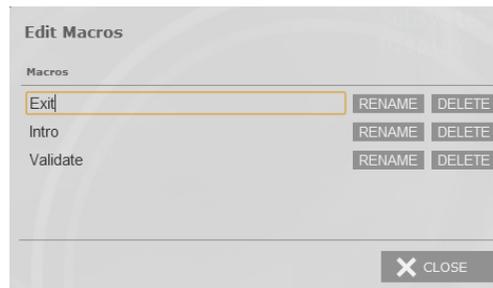
Renaming a Macro



1. Open the Settings
Click the Settings button and a menu will be presented.



2. Manage
Click on the "Manage" button to open the Macro Management Screen. The screen below will be presented to you:



- a. Change the Macro's name.
- b. Click on the "Rename" button on the side of the macro.
- c. Press OK on the message.
- d. Click on the "Close" button.

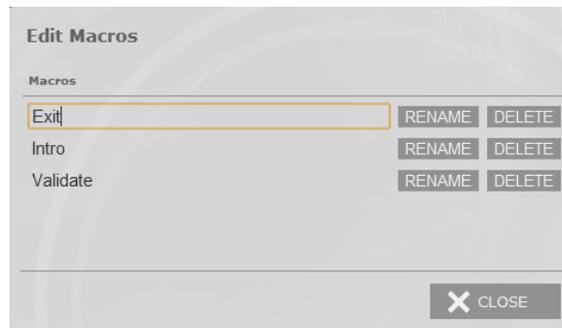
Deleting a Macro



1. Open the Settings
Click the Settings button and a menu will be presented.



2. Manage
Click on the "Manage" button to open the Macro Management Screen. The screen below will be presented to you:



- a. Click on the "Delete" button on the side of the macro.
- c. Press "Yes" on the message.
- d. Click on the "Close" button.

To learn how to use and create macros, read the next topic:

- [Create Macros](#)
- [Using Macros](#)

Editing a Macro

On most of the cases you can create, manage and use macros directly following the instructions above. On occasion, however, you might want to edit the code inside the macro. For that matter we have devoted an exclusive z/Scope section. Learn all about the advanced configuration in the following topic:

- [Macros Settings](#)

5.7 Screen Styles

Screen Styles give the user the possibility to freely modify the aspect of the emulation display. You can customize a wide variety of characteristics such as font format and size, cursor appearance and behaviour, color schemes, etc.

Read the next topic to learn how to change a Screen Style through web interface and have it set on a connection:

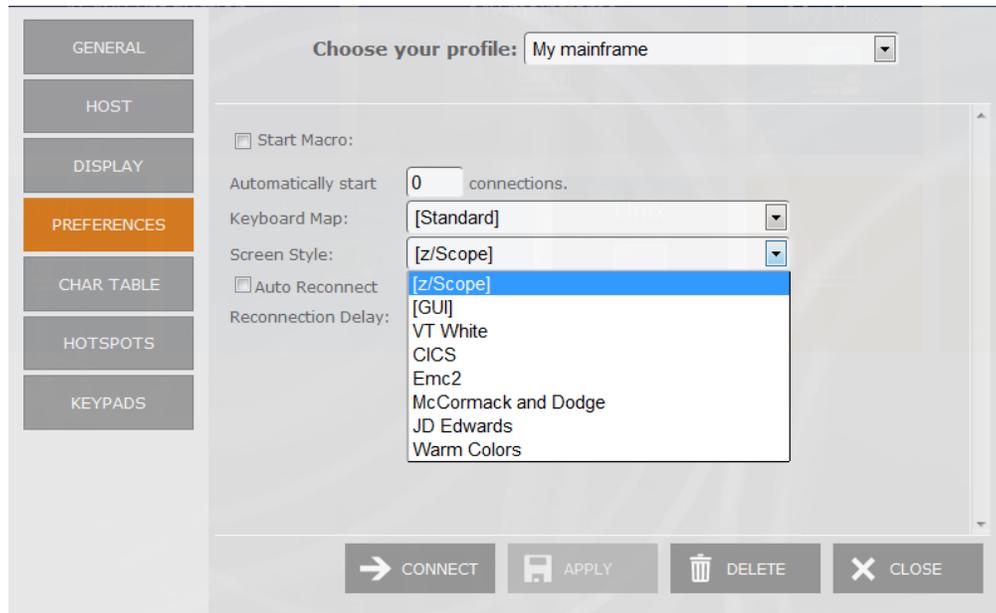
- [Using Screen Styles](#)

Related Topics

- [Screen Styles Settings](#)

5.7.1 Using Screen Styles

To change the Screen Style for the current connection go to the [Start Page](#) and click on the [Settings](#) button.



1. Select the connection you want to change the screen style, on the field "Choose your profile".
2. Click on the "Preferences" menu item and select the desired screen style.
3. Connect or Apply the changes:
 - a. Click on the "Apply" if you want these changes to be persisted. All the following connections done using this profile, will use the new screen style.
 - b. Click on the "Connect" if you want to show the connection with the new screen style.

Related Topics

- [Screen Styles Settings](#)

5.8 Admin Control Panel

The Admin Control Panel feature allows assigned users to manage the active connections and sessions, as well as view all their history in the system statistics (connections, sessions and browsers).



Start Page - Admin

Click on the Admin button to have the Control Panel opened on a new browser tab.

The Admin panel has two tabs:

1. [Connections Management](#): Allows assigned users to "disconnect" and "delete" active sessions.
2. [Log & Statistics](#): Allows assigned users to view the connections, sessions and browsers history.

Related Topics

- [Permissions Settings](#)

5.8.1 Connections Management

The Connection Management feature allows assigned users to administrate the connections by viewing, deleting and disconnecting its active sessions.

View Modes

The Connection Management panel features two view modes:

By User

The information on this view mode is grouped first by User and all the active sessions are organized per Browser and the Source Computer. Each active session presented will give you information regarding the kind of host, host name and address and also the date and time the session was established.



By Host

The information on the Host view mode is grouped by Host and then all the active sessions are organized per Browser and Source Computer. Each active session presented will give you information regarding the application user and also the date and time the session was established.



Managing sessions

The user assigned to manage connections will be able to "Disconnect" and "Delete" active session.

Refresh

Refreshes the screen with updated connection data.

Disconnect

The "disconnect" button will disconnect the session from the host it is currently connected. After that, the session screen will be kept open to the user, so that he has the possibility to re-connect again.

Delete

The "delete" button will delete the selected session. This means that the session will be disconnected from the host and the user session screen will be closed. If the user is with this session currently open, he/she will be redirected to the [Start page](#).

Delete All

The "delete all" button will perform the same action as the "delete" button, with the difference that it will delete all the existing sessions for a specific host or from a specific user, depending on the view mode (By User/By Host) selected at the moment.

Filters

The Filters column allows you to select only some active sessions. You can select the sessions by User and by Host.

User

Type in the username or part of it, to restrict the sessions by this criteria.

Host

Select one of the listed hosts to have the sessions view restricted by one specific host.

Apply

Once you have entered the user or/and selected the host, press the Apply button and the sessions will be selected using the specified parameters.

Related Topics

- [Log & Statistics](#)
- [Permissions Settings](#)

5.8.2 Log & Statistics

The Log and Statistics tab allows assigned users to view historical data regarding Sessions and Connections established in a period of time.

Sessions

The Session View mode, show all the sessions created through the application within a determined period of time (default filter: Last hour).

The information shown on the sessions table are: User (User that started the new session), Source IP (IP Address from which the session was started), Start (Date that the Session Started), End (Date that the Session Ended) and Connections (Counter of Connections established within the Session).

The screenshot shows the Admin interface with the 'LOG & STATISTICS' tab selected. Underneath, the 'SESSIONS' view is active. The table below shows the data for sessions.

User	Source IP	Start	End	Connections
+ CYBEESOFT\cybeleadmin	192.168.0.109	2012-09-17 16:30:48	2012-09-17 16:30:48	1
- cybelesoft\mcatani	192.168.0.107	2012-09-17 15:48:21	2012-09-17 16:30:48	1
- cybelesoft\mcatani	192.168.0.107	2012-09-17 12:57:54	2012-09-17 13:08:45	3
Hosts				
Host	Type	Start	End	
192.168.0.109	3270	2012-09-17 12:58:36	2012-09-17 13:08:45	
192.168.0.109	3270	2012-09-17 12:58:23	2012-09-17 12:58:32	
192.168.0.109	3270	2012-09-17 12:57:57	2012-09-17 12:58:19	
+ CYBEESOFT\divazquez	192.168.0.237	2012-09-17 12:37:29	2012-09-17 12:37:48	1
+ CYBEESOFT\divazquez	192.168.0.237	2012-09-17 12:36:23	2012-09-17 12:54:48	1
+ cybelesoft\kdesouza	192.168.0.109	2012-09-17 12:02:05	2012-09-17 16:30:48	1
+ cybelesoft\loewy	192.168.0.32	2012-09-14 18:49:13	2012-09-14 18:49:13	1
+ cybelesoft\kdesouza	192.168.0.109	2012-09-14 18:14:10	2012-09-14 18:14:10	1
+ cybelesoft\kdesouza	192.168.0.109	2012-09-14 17:58:58	2012-09-14 17:58:58	2
+ cybelesoft\kdesouza	192.168.0.109	2012-09-14 17:54:39	2012-09-14 17:54:46	1
+ CYBEESOFT\cybeleadmin	192.168.0.109	2012-09-14 17:48:10	2012-09-14 17:53:06	1
+ cybelesoft\kdesouza	192.168.0.109	2012-09-14 17:37:03	2012-09-14 17:37:03	1
+ CYBEESOFT\cybeleadmin	192.168.0.109	2012-09-14 16:16:49	2012-09-14 16:23:59	1

Connections

The Connection View mode, show all the connections established in a determined period of time (default filter: Last hour).

The information shown on the connections table are: User (User that established the connection), Source IP (IP Address from which the connection was established), Type (Type of the Host), Host (Host Name), Start (Date that the Connection Started) and End (Date that the Connection Ended).

Admin cybelesoft\kdesouza 

LOG & STATISTICS

SESSIONS CONNECTIONS **BROWSERS** REFRESH

User	Source IP	Type	Host	Start	End
CYBELESOFT\cybeleadmin	192.168.0.109	5250	pub.rzkh.de	2012-09-17 16:30:51	2012-09-17 16:30:48
cybelesoft\mcatani	192.168.0.107	3270	192.168.0.109	2012-09-17 12:58:36	2012-09-17 13:08:45
cybelesoft\loewy	192.168.0.32	3270	clemson	2012-09-14 18:49:14	2012-09-14 18:49:13
cybelesoft\kdesouza	192.168.0.109	5250	192.168.0.115	2012-09-14 18:14:11	2012-09-14 18:14:10
cybelesoft\kdesouza	192.168.0.109	5250	192.168.0.115	2012-09-14 18:00:05	2012-09-14 17:58:58
cybelesoft\kdesouza	192.168.0.109	5250	192.168.0.115	2012-09-14 17:54:40	2012-09-14 17:54:46
CYBELESOFT\cybeleadmin	192.168.0.109	5250	192.168.0.115	2012-09-14 17:48:11	2012-09-14 17:53:06
cybelesoft\kdesouza	192.168.0.109	5250	192.168.0.115	2012-09-14 17:37:04	2012-09-14 17:37:03
CYBELESOFT\cybeleadmin	192.168.0.109	5250	pub.rzkh.de	2012-09-14 16:16:50	2012-09-14 16:23:59
cybelesoft\mcatani	192.168.0.107			2012-09-17 15:48:24	2012-09-17 15:48:32
cybelesoft\mcatani	192.168.0.107	3270	192.168.0.109	2012-09-17 12:58:23	2012-09-17 12:58:32
cybelesoft\mcatani	192.168.0.107	3270	192.168.0.109	2012-09-17 12:57:57	2012-09-17 12:58:19
CYBELESOFT\dvazquez	192.168.0.237	3270	192.168.0.115	2012-09-17 12:36:26	2012-09-17 12:39:19
CYBELESOFT\dvazquez	192.168.0.237	3270	192.168.0.115	2012-09-17 12:37:30	2012-09-17 12:37:44
cybelesoft\kdesouza	192.168.0.109	5250	clemson.clemson.edu	2012-09-17 12:02:06	2012-09-17 12:02:18
cybelesoft\kdesouza	192.168.0.109	5250	192.168.0.115	2012-09-14 17:58:59	2012-09-14 18:05:27

FILTERS

Users (comma separated):

Host:

Pick a date range from the list...

APPLY

Browsers

The Browser View mode, presents all the browsers used to connect to z/Scope Anywhere. The last column, is a counter that shows how many sessions were established within the same browser model.

Admin cybelesoft\kdesouza 

LOG & STATISTICS

SESSIONS CONNECTIONS **BROWSERS** REFRESH

User Agent	Sessions
Mozilla/5.0 (Macintosh; Intel Mac OS X 10_7; rv:14.0) Gecko/20100101 Firefox/14.0.1	1
Mozilla/5.0 (Macintosh; Intel Mac OS X 10_7_4) AppleWebKit/537.1 (KHTML, like Gecko) Chrome/21.0.1180.89 Safari/537.1	1
Mozilla/5.0 (PlayBook; U; RIM Tablet OS 2.0.1; en-US) AppleWebKit/535.8+ (KHTML, like Gecko) Version/7.2.0.1 Safari/535.8+	2
Mozilla/5.0 (Windows NT 5.1) AppleWebKit/537.1 (KHTML, like Gecko) Chrome/21.0.1180.89 Safari/537.1	1
Mozilla/5.0 (Windows NT 6.1; WOW64) AppleWebKit/537.1 (KHTML, like Gecko) Chrome/21.0.1180.89 Safari/537.1	5
Mozilla/5.0 (Windows NT 6.1; WOW64; rv:15.0) Gecko/20100101 Firefox/15.0.1	3

FILTERS

Users (comma separated):

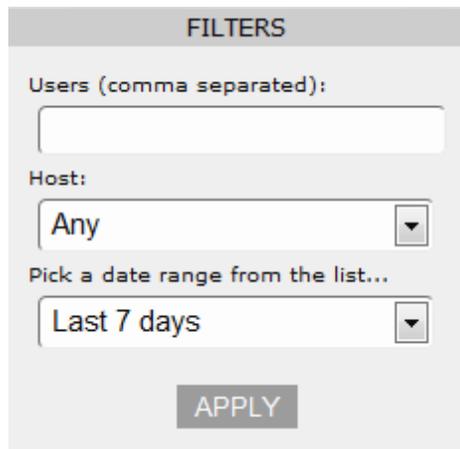
Host:

Pick a date range from the list...

APPLY

Filters

The Filters column allows you to filter the historical data. You can select the data filtering by Users, Host and a Date Range.



The screenshot shows a dialog box titled "FILTERS". It contains three main sections: "Users (comma separated):" with a text input field; "Host:" with a dropdown menu currently showing "Any"; and "Pick a date range from the list..." with a dropdown menu currently showing "Last 7 days". At the bottom of the dialog is a button labeled "APPLY".

Users

Type in the usernames of the users you want filter, separated by commas.

Host

Select one of the listed hosts to have the results filtered for this host.

Pick a date range from the list

Select one of the date range options, or select "Custom Range" to inform the exact period you want to use to filter the data.

Apply

Once you have entered the user or/and selected the host, press the Apply button and the sessions will be selected using the specified parameters.

Related Topics

- [Connections Management](#)
- [Permissions](#)

5.9 Security and Encryption

With z/Scope you can connect securely via the SSL protocol. SSL stands for Secure Sockets Layer and was originally developed by Netscape for transmitting private information and documents over the Internet.

SSL is based on a private key encryption system. Many web sites use this protocol to transmit confidential user information such as credit card numbers.

An SSL digital certificate is an electronic file that uniquely identifies individuals and servers. Digital certificates allow the client to authenticate the server prior to establishing an SSL session.

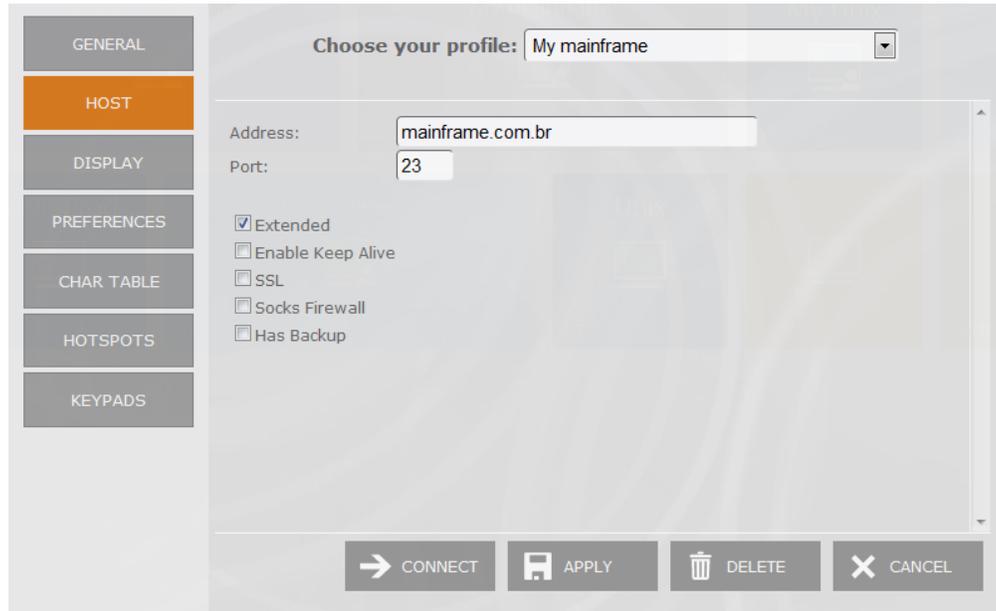
Typically, digital certificates are signed by an independent and trusted third party to ensure their validity. The "signer" of a digital certificate is known as a Certification Authority (CA), such as VeriSign®.

For more information about how to work with SSL and SSH in z/Scope, read the following topics:

- [Enabling SSL](#)
- [Enabling SSH](#)

5.9.1 Enabling SSL

When connecting to a host that supports SSL, in order to take advantage of this technology you must activate the SSL option in the web Settings Host tab ([Unix/VT Host tab](#) or [Mainframe or AS/400 Host tab](#)). To achieve this, follow these steps:



1. Go to the [Start Page](#) and click on the [Settings](#) button.
2. Select the connection on the field "Choose your profile".
3. Click on the "Host" tab.
4. Check the "SSL" check option. The SSL tab will be enabled.
5. Customize the SSL settings on the SSL tab, if necessary:
 - a. [IBM Mainframe or AS/400 SSL Settings](#)
 - b. [Unix/VT SSL Settings](#)
6. Connect or Apply the changes:
 - a. Click on the "Apply" if you want these changes to be persisted. All the following connections done using this profile, will have the SSL activated.
 - b. Click on the "Connect" if you want only the next session to have the SSL activated.

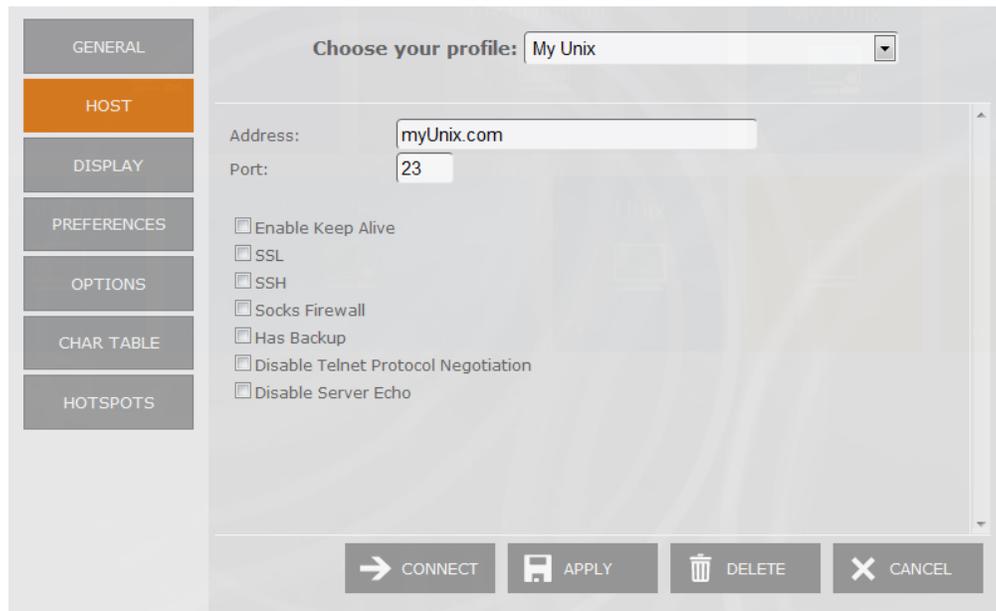
Related Topics

- [Security and Encryption](#)

5.9.2 Enabling SSH

When connecting to a host that supports SSH, in order to take advantage of this technology you must activate the SSH option in the web Settings Host tab: [Unix/VT Host tab](#).

To achieve this, follow these steps:



1. Go to the [Start Page](#) and click on the [Settings](#) button.
2. Select the connection on the field "Choose your profile".
3. Click on the "Host" tab.
4. Check the "SSH" check option. The SSH tab will be enabled.
5. Customize the SSH settings on the [SSH tab](#), if necessary:
6. Connect or Apply the changes:
 - a. Click on the "Apply" if you want these changes to be persisted. All the following connections done using this profile, will have the SSH activated.
 - b. Click on the "Connect" if you want only the next session to have the SSH activated.

Related Topics

- [Security and Encryption](#)

5.10 Authentication modes

There are two authentication modes on z/Scope Anywhere: Active Directory and Google Account Integration. They are not mutually exclusive, so that you can use them both at the same time.

Active Directory

Users can always authenticate with their Active Directory accounts, as long as their credentials are registered in the Active Directory where z/Scope Server is deployed.

This active directory integration comes automatically set on z/Scope Anywhere and there is no need to configure any setting to make it work.

Desktop Mode

If you have selected the "Desktop mode" on the installation, the application will authenticate automatically using the active desktop logged user.

On this mode, there will be only one set of personal preferences and any user who connect to this z/Scope will share the same personal settings.

Server Mode

If the "Server mode" was selected during the installation, the browser will always ask for new credentials.

This mode allows each user to have their personal preferences saved separately on the server. That way, users can connect to z/Scope Anywhere from many different places and have the environment whenever they go.

Google Account Integration

Users can also authenticate using their Google Accounts, when z/Scope was installed with the server mode.

This kind of authentication requires the system administrator to configure a few settings on z/Scope Anywhere and on Google Apps servers.

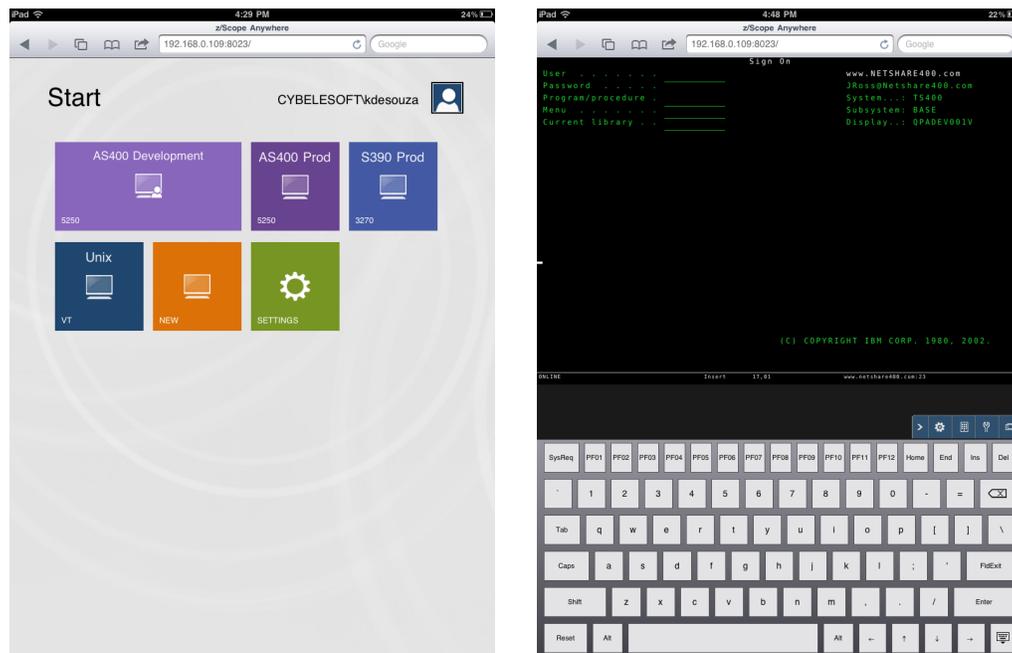
If you want to learn how to configure the Google Accounts Integration feature, read the [Appendix C - Google Account Integration](#).

Learn also, how to restrict Users/Groups access to connections, with the [Settings Profiles](#).

6 Mobile devices

Z/Scope Anywhere is fully tablet-ready. Its metro design and support for both touch and virtual keyboards provides a familiar experience to users of smart phones and tablets.

Access the z/Scope Anywhere Server URL from a mobile or tablet web browser and you will have a fully adapted interface to make the connection easier, as well as good performance and usability options specially designed for mobile devices.



The special interface for mobile devices includes:

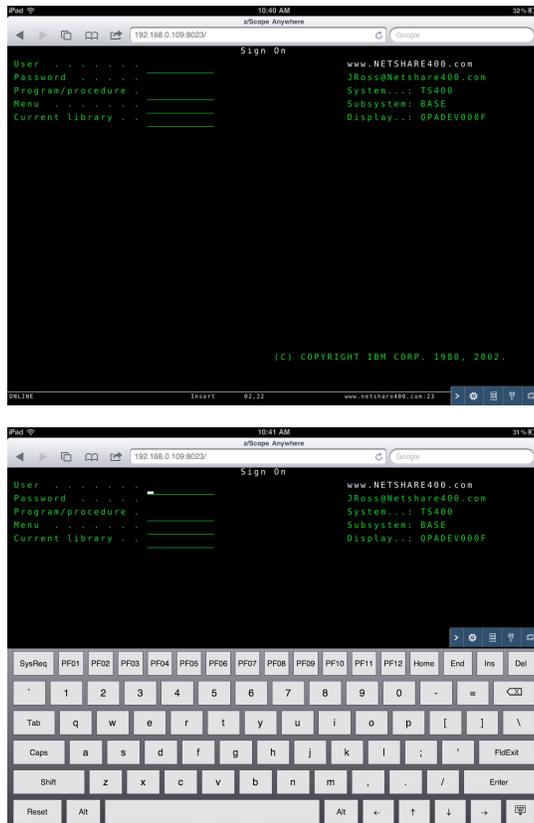
- [Virtual Keyboards](#)
- [Gestures](#)

6.1 Virtual Keyboards

Z/Scope Anywhere enables virtual keyboards when you establish connections through mobile devices.

Activate

The virtual keyboard will be activated automatically every time you get into a text field of the emulation screen.



Hide

In order to hide the virtual keyboard, you should press the keyboard lower right button.

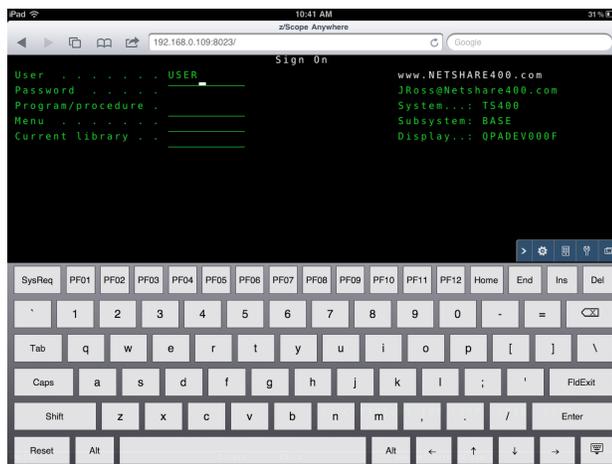
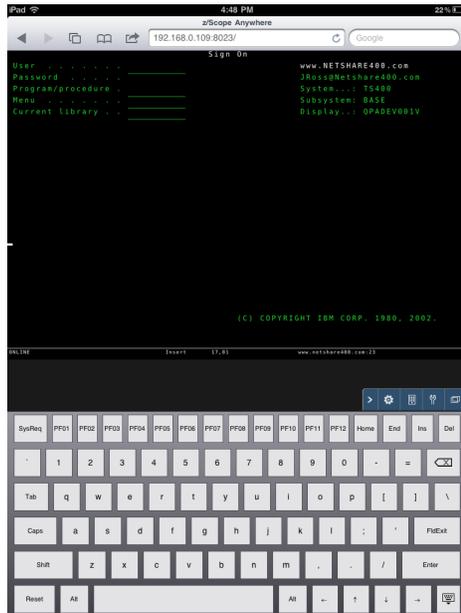


Hide
Press this button and the keyboard will be hidden.

Change the orientation

z/Scope Anywhere virtual keyboards adapt automatically to the device orientation. The images below presents you with the same screen shown on

portrait and landscape orientations.



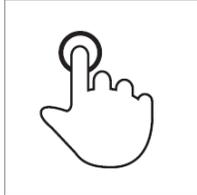
Related Topics

- [Char Table for Unix/VT/SSH](#)
- [Char Table for IBM Mainframe and AS/400](#)

6.2 Gestures

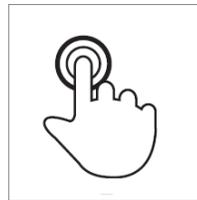
Z/Scope Anywhere provides many gestures to improve the experience of mobile device users. Learn what they are and the circumstances you can use them:

Regular known gestures:



Tap
Briefly touch surface with fingertip

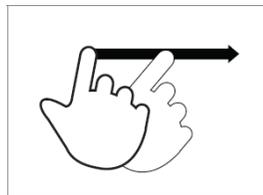
Mouse correspondent
Single-click



Double-tap
Rapidly touch surface twice with fingertip

Mouse correspondent
Double-click

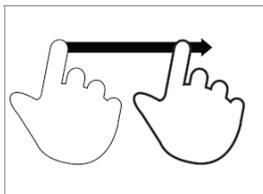
Special gestures:



Flick
Quickly brush surface with fingertip

Where

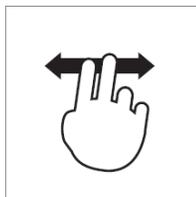
[Start Page](#) and [Connections View](#):
From the Start Page or any Connection Screen it is possible to navigate through all open sessions (right flick) and navigate back (left flick) until getting to the start page.



Drag
Move two fingertips over surface without losing contact

Where

[Start Page](#) and [Connections View](#):
From the Start Page or any Connection Screen it is possible to go to other roll through all open sessions (right-flick) and roll back (left-flick) through all sessions until get back to the start page.



Double finger drag
Move two fingertip over surface without losing contact

Where

[Start Page](#):
When the connections buttons occupy more than the screen area, use the Double finger drag to roll the screen aside and see the other connections.

[Open Sessions list:](#)

Every time the open sessions list does not fit in the current screen, you can roll aside the list and get to see all open session icons.

Read more:

- [Virtual Keyboards](#)
- [App Store Application](#)

6.3 App Store Application

The new z/Scope Anywhere app loads your z/Scope Anywhere without a standard browser intervention, enabling a better bluetooth keyboard control.

Follow these steps to get the z/Scope Anywhere app installed:

1. Go to the App Store
2. Search for the 'z/Scope Anywhere' app.
3. Download the application to your mobile device.
4. Open it.
5. You will see a screen asking you for a z/Scope Anywhere URL:

◀ Back to App Store

6:48 PM

70% 🔋



URL

Continue

6. Enter the URL to your z/Scope Anywhere server formed by protocol://ip:port (e.g. https://192.168.0.2:8023). This is the same address that you would use to access the z/Scope Anywhere server directly from a browser.
7. Wait until the application is loaded.
8. Now you are ready to use the z/Scope Anywhere app!

Read More:

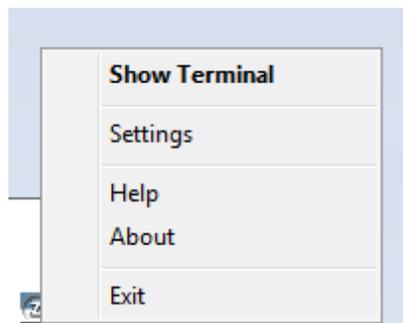
- [Virtual Keyboard](#)
- [Gestures](#)

7 Advanced Settings

Z/Scope Anywhere settings and preferences are configured through the "Configuration Manager" tool. You can access it through the start menu "z/Scope Anywhere - Configuration Manager".



Alternatively, if you have installed the application user mode, you can access it from the tray icon bar, Settings menu :

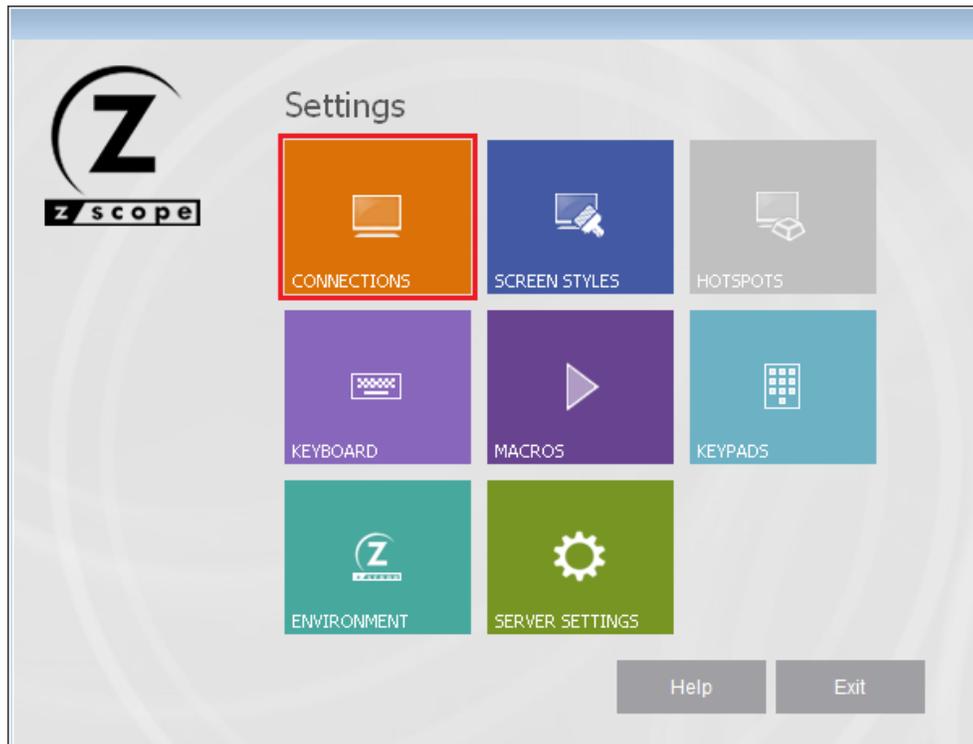


Click on any of these categories to open the corresponding dialog. These dialogs will be explained in detail throughout the rest of this chapter:

- [Connections](#)
- [Screen Styles](#)
- [HotSpots](#)
- [Keyboard](#)
- [Macros](#)
- [Keypads](#)
- [Environment](#)
- [Server Settings](#)

7.1 Shared Connections

Shared connections are managed on the 'Configuration Manager', by clicking on the 'Connections' button:

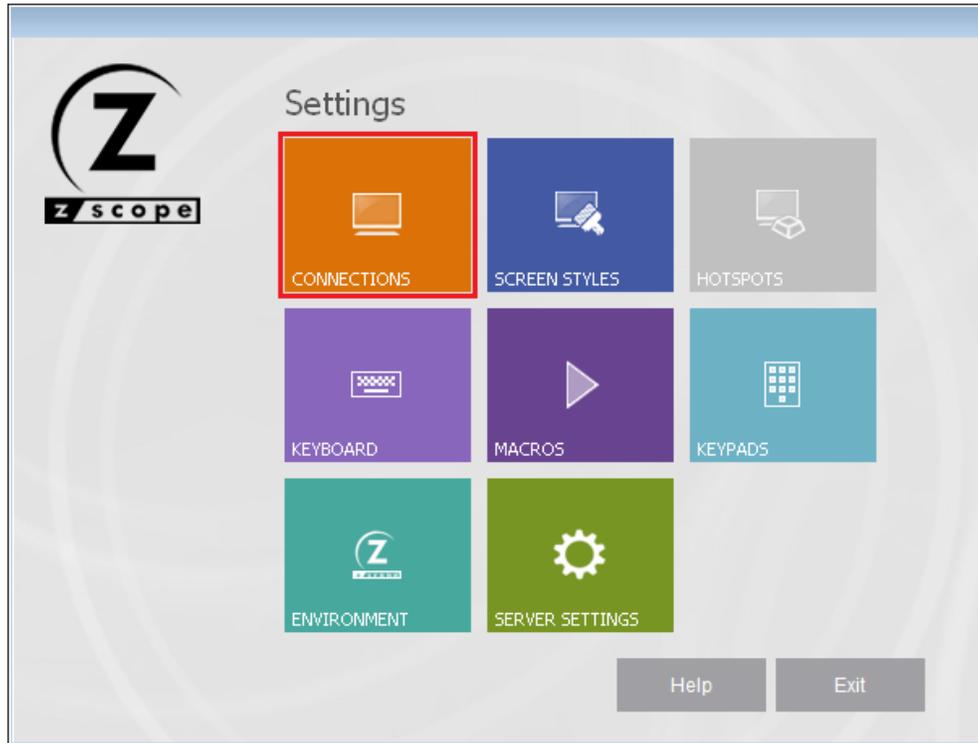


Find below all the operations you can do over Shared Connections from the Configuration Manager:

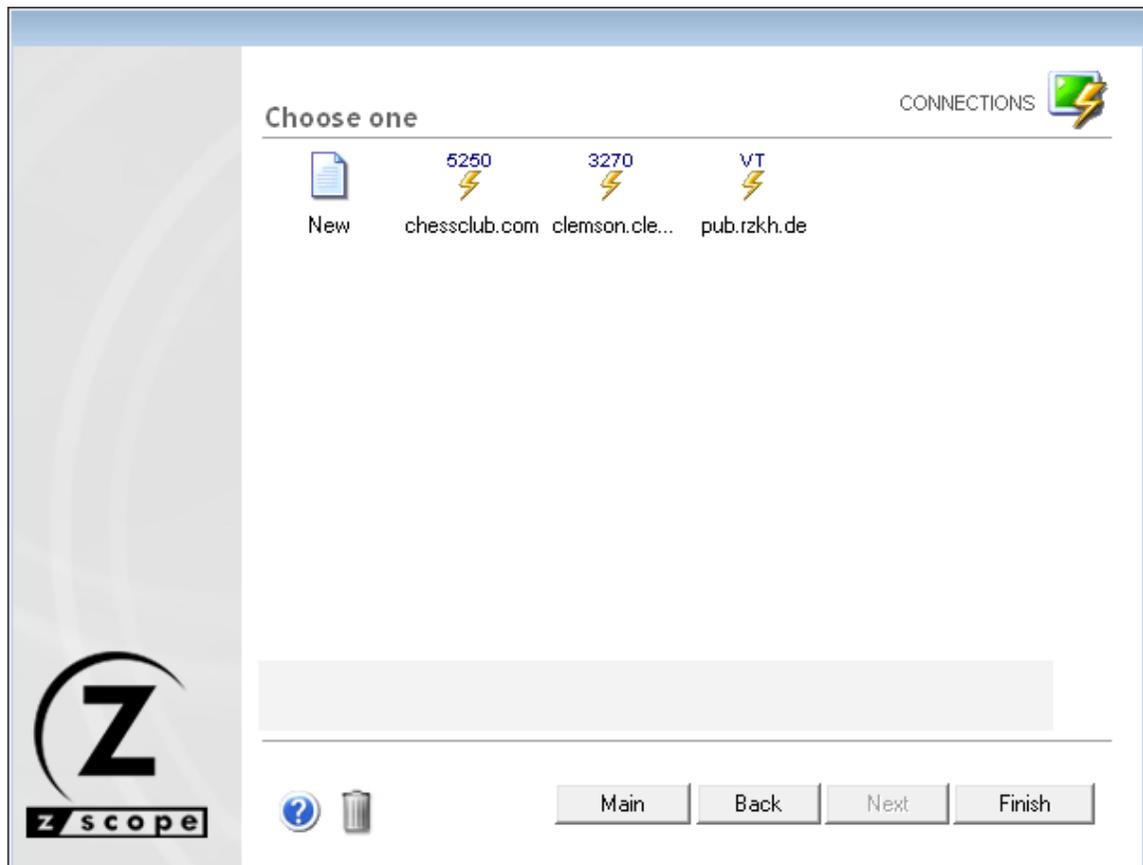
- [Creating/Editing](#)
- [Configuring Unix/VT shared connection parameters](#)
- [Configuring Mainframe / AS400 shared connection parameters](#)
- [Restric/Grant access through profiles](#)
- [Delete](#)

7.1.1 Creating/Editing Shared Connections

In order to create or edit a shared connection you have to open the Configuration Manager and click on the "Connections" button:



The Connections management dialog shows you a list of the existing Connections.



Creating a shared connection:

Use the 'New' icon to create a new Connection from scratch. Double-click on the 'New' icon and the Connection Wizard will be launched.

Modifying a shared connection:

To modify the attributes of a previously created Connection, select this connection using the mouse and then click on the bottom 'Next' button, or just simply double-click on it.

After you select a connection and click on 'Next', you will be presented with a dialog in which you will have access to all the attributes of the Connection you are editing.

For a detailed description each connection parameter, read the next topics:

- [UNIX/VT Connections](#)
- [Mainframe/AS400 Connections](#)

7.1.2 Unix/VT Connections

For a detailed description of the parameters available when editing or creating Unix/VT connections in the Configuration Manager, consult the following sections:

- [General](#)
- [Host](#)
- [Backup](#)
- [Display](#)
- [Socks](#)
- [SSL](#)
- [SSH](#)
- [Preferences](#)
- [Options](#)
- [Hotspots](#)

You might also be interested in:

- Mainframe/AS400 Connections Settings
- Creating a Connection in the Web Interface

7.1.2.1 General

In the 'General' tab you will find the following parameters:



The screenshot shows the 'General' tab of the 'CONNECTIONS' configuration window. On the left is a vertical navigation menu with the following items: General (selected), Host, Backup, Display, Socks, SSH, Preferences, Options, and HotSpots. The main area contains the following fields:

- Connection name:** A text input field containing 'Local Server'.
- Description:** A large empty text area.

At the bottom of the window, there is a 'z scope' logo, a help icon (question mark in a circle), and four buttons: 'Main', 'Back', 'Apply', and 'Finish'.

Connection name

Enter a name to identify the connection.

Description

Type a longer description for the connection.

Read more:

- [Unix/VT Connections - 'Host' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Backup' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Display' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Socks' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'SSL' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'SSH' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Preferences' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Options' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'HotSpots' Settings \(Configuration Manager\)](#)

7.1.2.2 Host

In the 'Host' tab you will find the following parameters:

The screenshot shows the 'Host' configuration window in zScope Anywhere 7.0. On the left is a sidebar with a 'z scope' logo and a menu containing: General, Host (selected), Backup, Display, Socks, SSH, Preferences, Options, and HotSpots. The main area is titled 'CONNECTIONS' with a lightning bolt icon. It contains the following fields and options:

- Address:
- Port:
- Enable Keep Alive
- SSL
- Socks Firewall
- SSH
- Disable Telnet Protocol Negotiation
- Has Backup
- Disable Server Echo
- Character set translation:

At the bottom are buttons for 'Main', 'Back', 'Apply', and 'Finish', along with a help icon.

Address
URL or IP address of the host computer.

Port
TCP port defined at the host computer for Telnet access.

 Default Telnet port number is 23.

Enable Keep alive
Enables keep-alive mechanism, needed for some Telnet servers to prevent disconnections.

Socks Firewall
Enables support for Socks firewall.

 When you check this option, the ['Socks' tab](#) will automatically appear in the connection settings dialog.

Disable Telnet Protocol Negotiation

Check this option if you want to omit the protocol negotiation when connecting.

Has Backup

Check this option if you would like to specify an alternate ip for this connection.



When you check this option, the ['Backup' tab](#) will automatically appear in the connection settings dialog.

SSL

Enables the SSL (Secure Sockets Layer) protocol for the host.



When you check this option, the ['SSL' tab](#) will automatically appear in the connection settings dialog. See [Using SSL](#). The SSL and SSH options are mutually exclusive.

SSH

Enables the SSH protocol for the host.



When you check this option, the ['SSH' tab](#) will automatically appear in the connection settings dialog. The SSH and SSL options are mutually exclusive.

Disable Server Echo

Check this option if you don't want the server to echo every character it receives.

Character Set Translation

Select the character set that better suits your language needs.



When you select BiDi sets, a new option will be enabled so you can select the BiDi settings.

Read more:

- [Unix/VT Connections - 'General' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Backup' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Display' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Socks' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'SSL' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'SSH' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Preferences' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Options' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'HotSpots' Settings \(Configuration Manager\)](#)

7.1.2.3 Backup

In the 'Backup' tab you will see a table showing the list of alternate hosts for the connection. If the connection fails, z/Scope will connect to an alternate host, starting with the first one in the list. If an alternate host fails, z/Scope will connect to the next one in the list.

To configure these settings you will find the following parameters:

Address

Enter here the IP address of the alternate host you would like to add for this connection

Device Name

Enter here the Device Name with which you would like to connect to this alternate host.

Port

Enter here the port number for this alternate host.



Move Up

Select a backup connection from the list and use this button to move it above other backup connections in the list.



Move Down

Select a backup connection from the list and use this button to move it below other backup connections in the list.

Add

Press this button to add the Address, Device Name and Port information entered above as a new host in the list. New hosts will be added last in the list.

Modify

Select a backup connection from the list and press this button to replace the selected host with the information entered in the fields 'Address', 'Device Name' and 'Port'.

Delete

Select a backup connection from the list and press this button to delete it from the list.

Read more:

- [Unix/VT Connections - 'General' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Host' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Display' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Socks' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'SSL' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'SSH' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Preferences' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Options' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'HotSpots' Settings \(Configuration Manager\)](#)

7.1.2.4 Display

In the 'Display' tab you will find the following parameters:

General
Host
Backup
Display
Socks
SSH
Preferences
Options
HotSpots

CONNECTIONS

Terminal

Type: ANSI
String: ANSI
 Automatic
 Auto wrap

DEC Answerback:
 Use Computer Name

Screen Size

24 rows x 80 cols
 Custom
Rows: 24
Cols: 80
 Fixed Column Size
Scrollback lines: 1,000

Scrolling

Smooth
 Jump
Jump speed: 2

z scope

Main Back Apply Finish

Terminal

Type / String

Specify the type of terminal to emulate, which is not necessarily the same that is informed to the server. To inform the server a different type of terminal than the one emulated, use the 'String' field. To automatically detect the type of terminal, check the 'Automatic' option.

DEC Answerback

Here you can specify the DEC 'Transmit answerback message' control character. Check the 'Use Computer Name' Checkbox to assign the computer's name to the DEC Answerback field.

Auto Wrap

Check this option if you want the text lines to be wrapped when the terminal is resized.

Screen Size

Rows/Cols

Specify the number of rows and columns to be displayed. Choose from the options provided or check the 'Custom' option and type in the numbers.

Fixed Column Size

Check this option to display a horizontal scrollbar instead of resizing the font.

Scrollback lines

Specify the number of rows to keep in the buffer so they can be scrolled with the vertical scrollbar.

Scrolling

Smooth/Jump

Select a method for scrolling.

Jump speed

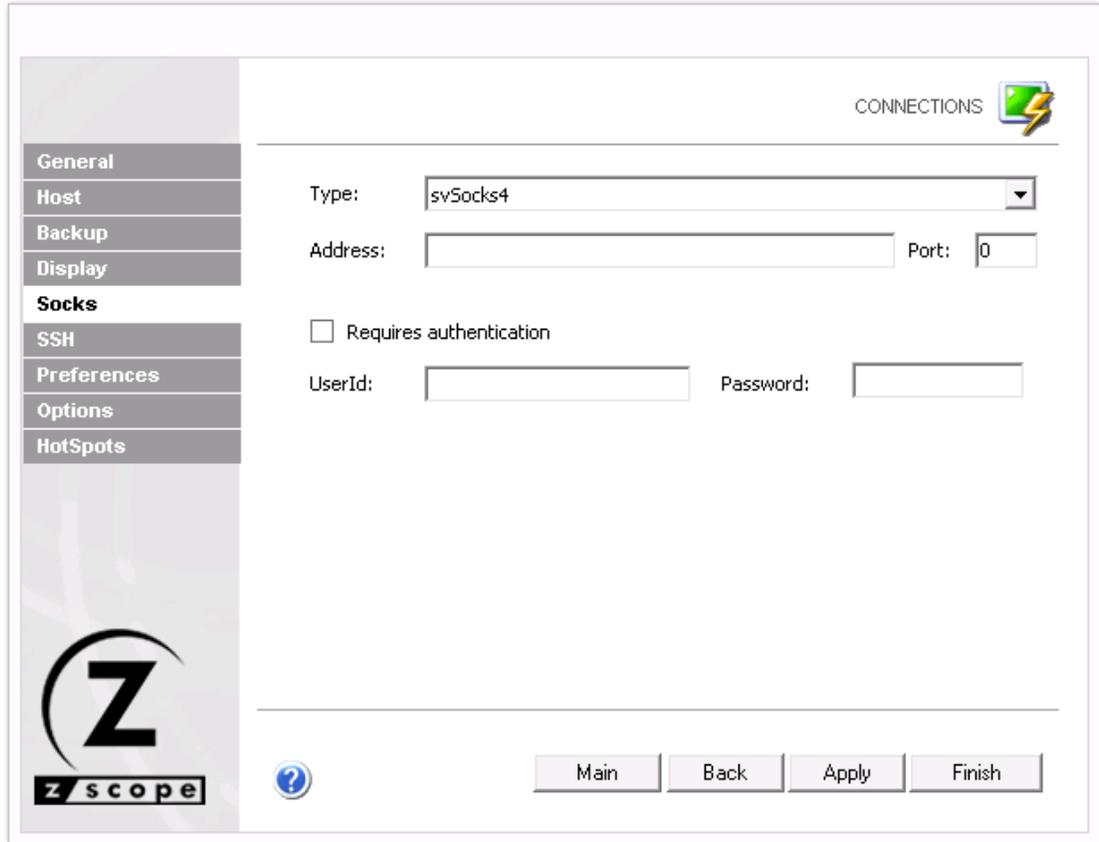
Specify the number of rows to be scrolled when the scrolling method is set to 'Jump'.

Read more:

- [Unix/VT Connections - 'General' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Host' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Backup' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Socks' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'SSL' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'SSH' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Preferences' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Options' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'HotSpots' Settings \(Configuration Manager\)](#)

7.1.2.5 Socks

In the 'Socks' tab you will find the following parameters:



 This tab only becomes available when the 'Socks' option is checked in the ['Host' tab](#).

Type

Indicates the type of Socks protocol you will be connecting to. z/Scope provides support for svSocks 4, 4A and 5 protocols.

Address

In this field you must enter the IP address of the Socks server.

Port

In this field you must enter the port number of the Socks service at the host.

Requires Authentication

When connecting with svSocks4A protocol and higher, you have the option of providing a User ID and a Password for authentication.

UserId

In this field you must enter your User ID.

Password

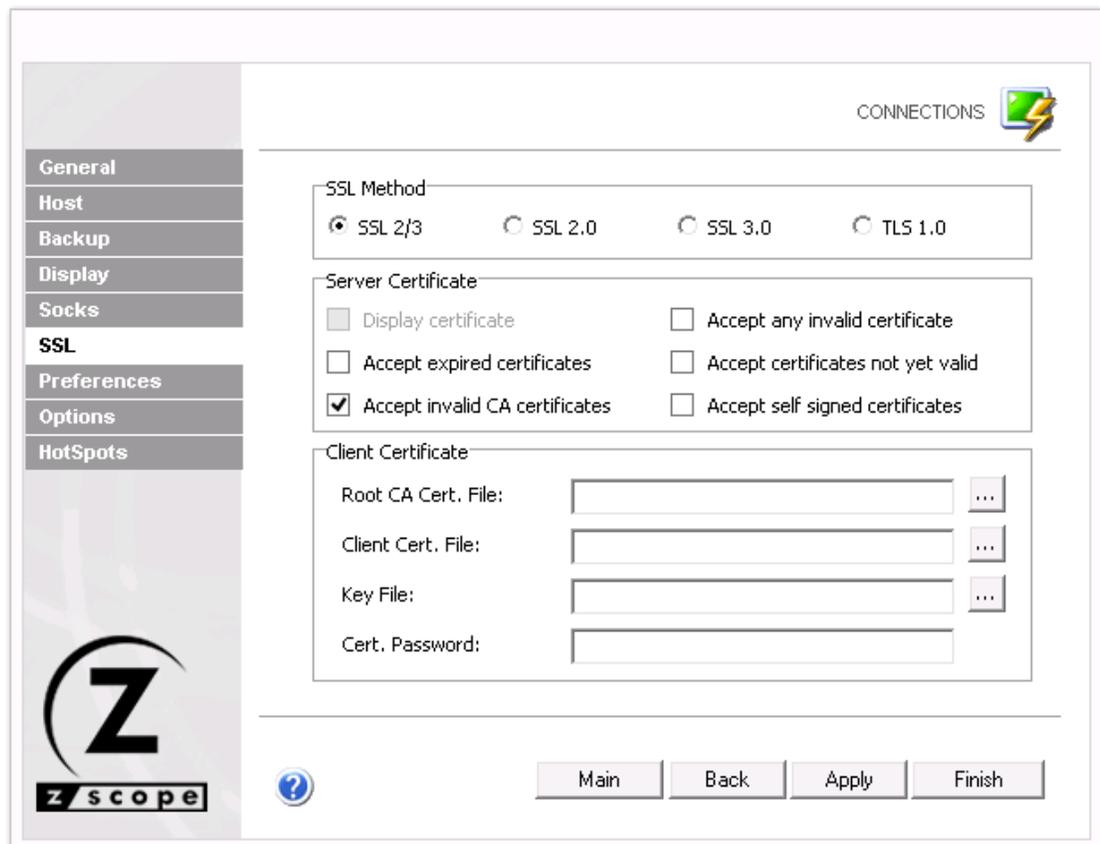
In this field you must enter your Password.

Read more:

- [Unix/VT Connections - 'General' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Host' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Backup' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Display' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'SSL' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'SSH' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Preferences' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Options' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'HotSpots' Settings \(Configuration Manager\)](#)

7.1.2.6 SSL

In the 'SSL' tab you will find the following parameters:



The screenshot shows the 'CONNECTIONS' configuration window with the 'SSL' tab selected in the left sidebar. The main area contains the following settings:

- SSL Method:** Radio buttons for SSL 2/3 (selected), SSL 2.0, SSL 3.0, and TLS 1.0.
- Server Certificate:** Checkboxes for 'Display certificate', 'Accept any invalid certificate', 'Accept expired certificates', 'Accept certificates not yet valid', 'Accept invalid CA certificates' (checked), and 'Accept self signed certificates'.
- Client Certificate:** Text input fields for 'Root CA Cert. File:', 'Client Cert. File:', 'Key File:', and 'Cert. Password:', each with a browse button (three dots).

At the bottom of the window are buttons for 'Main', 'Back', 'Apply', and 'Finish', along with a help icon (question mark) and the zScope logo.

 This tab only becomes available when the 'SSL' option is checked in the ['Host' tab](#).

SSL Method

Choose one of the available methods shown: SSL 2/3, SSL 2.0, SSL 3.0 or TLS 1.0.

Server Certificate

The 'Display certificate' option controls whether to show the Certificate Info immediately after establishing the connection. The other options refer to the policy adopted when dealing with certificates that do not meet certain security conditions.

Client Certificate

Enter the file name of the certificate files that you own.

Read more:

- [Unix/VT Connections - 'General' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Host' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Backup' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Display' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Socks' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'SSH' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Preferences' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Options' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'HotSpots' Settings \(Configuration Manager\)](#)

7.1.2.7 SSH

In the 'SSH' tab you will find the following parameters:

The screenshot shows the 'SSH' preferences window in zScope Anywhere 7.0. The window has a sidebar on the left with the following tabs: General, Host, Backup, Display, Socks, SSH (selected), Preferences, Options, and HotSpots. The main content area is titled 'CONNECTIONS' and contains the following settings:

- Protocol Version:** Radio buttons for 'SSH 1 Only' and 'SSH 2'. 'SSH 2' is selected.
- Enable Compression:** An unchecked checkbox.
- Authentication:**
 - Password Authentication
 - Username: [Text Field]
 - Password: [Text Field]
 - Private Key File for Authentication
 - Key File: [Text Field] [Browse Button]

At the bottom of the window are buttons for 'Main', 'Back', 'Apply', and 'Finish'. A help icon (?) is also present.

 This tab only becomes available when the 'SSH' option is checked in the ['Host' tab](#).

SSH Protocol Version

Choose one of the available versions: SSH 1 Only, or SSH 2.

Enable Compression

Check this option to enable compression for the SSH protocol.

Authentication

Password Authentication

Uncheck this option if you don't want to use Password Authentication for SSH.

Username

Enter an user name with access to the host via the SSH protocol.

Password

Enter the password for the specified user name.

Private Key File for Authentication

Check this option if you want to use a private key-file for the authentication process. You must enter the path of the file in the field below.

Read more:

- [Unix/VT Connections - 'General' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Host' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Backup' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Display' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Socks' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'SSL' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Preferences' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Options' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'HotSpots' Settings \(Configuration Manager\)](#)

7.1.2.8 Preferences

In the 'Preferences' tab you will find the following parameters:



The screenshot shows the 'Connections' configuration window for z/Scope. On the left is a sidebar with tabs: General, Host, Backup, Display, Socks, SSH, Preferences (selected), Options, and HotSpots. The main area is titled 'CONNECTIONS' with a lightning bolt icon. It contains several settings: 'Automatically start' with a numeric spinner set to 0; 'Keyboard Map' with a dropdown menu; 'Screen Style' with a dropdown menu set to '[z/Scope]'; 'Scripting Directory' with a text field and a browse button (...); two checkboxes for 'Disable Auto-Suggestion' and 'Override the environment setting', both unchecked; 'Save my downloads to:' with a text field and a browse button (...); a checked checkbox for 'Auto Reconnect'; and 'Reconnection Delay' with a numeric spinner set to 10 seconds. At the bottom are buttons for 'Main', 'Back', 'Apply', and 'Finish'. The z/Scope logo is visible in the bottom left corner of the window.

Automatically Start [n] Connections

Allows you to specify the number of sessions of this connection that will be automatically established upon z/Scope start.

Keyboard Map

Select a [keyboard map](#) for this connection.

Screen Style

Allows you to select a default [Screen Style](#) for this connection.

Scripting Directory

Specify the folder on your local computer where script files will be stored.

Disable Auto-Suggestion

Check this option to have the Auto-Suggestion feature disabled by default for this connection.

Override the Environment Setting

Check this option to override environment settings with the connection's settings.

Auto Reconnect

Check this option if you would like to automatically reconnect to the host after logging off.

Reconnection Delay

Specify in this field the amount of time (in seconds) that you would like the system to take before auto reconnecting to the host.

Read more:

- [Unix/VT Connections - 'General' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Host' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Backup' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Display' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Socks' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'SSL' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'SSH' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Options' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'HotSpots' Settings \(Configuration Manager\)](#)

7.1.2.9 Options

In the 'Options' tab you will find the following parameters:

Modes

Local Echo

Check this option to allow local echoing of the characters when the server does not return echoes.

Auto repeat

Check this option to enable the auto repeat feature for the keyboard.

Break enabled

Check this option to be able to use the break command.

Receive Replacements

CR/LF is

Select the desired behaviour for the 'Carriage Return' (CR) and 'Line Feed' (LF) commands.

Send Replacements

Enter/Backspace sends

Select the desired behaviour for the 'Enter' and 'Backspace' keys.

Cursor/Keypad keys

Specify how the cursor and keypad keys are interpreted.

Line Mode

Mode

Indicate when LineMode will be activated from the options available in the combobox.

Read more:

- [Unix/VT Connections - 'General' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Host' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Backup' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Display' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Socks' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'SSL' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'SSH' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Preferences' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'HotSpots' Settings \(Configuration Manager\)](#)

7.1.2.10 HotSpots

In the 'HotSpots' tab you can choose the HotSpots that will be available when working with the connection.



Related Topics

Read more:

- [Unix/VT Connections - 'General' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Host' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Backup' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Display' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Socks' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'SSL' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'SSH' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Preferences' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - 'Options' Settings \(Configuration Manager\)](#)
- [Unix/VT Connections - HotSpots Settings \(Configuration Manager\)](#)

7.1.3 Mainframe/AS400 Connections

For a detailed description of the parameters available when editing or creating Mainframe/AS400 connections in the Configuration Manager, consult the following sections:

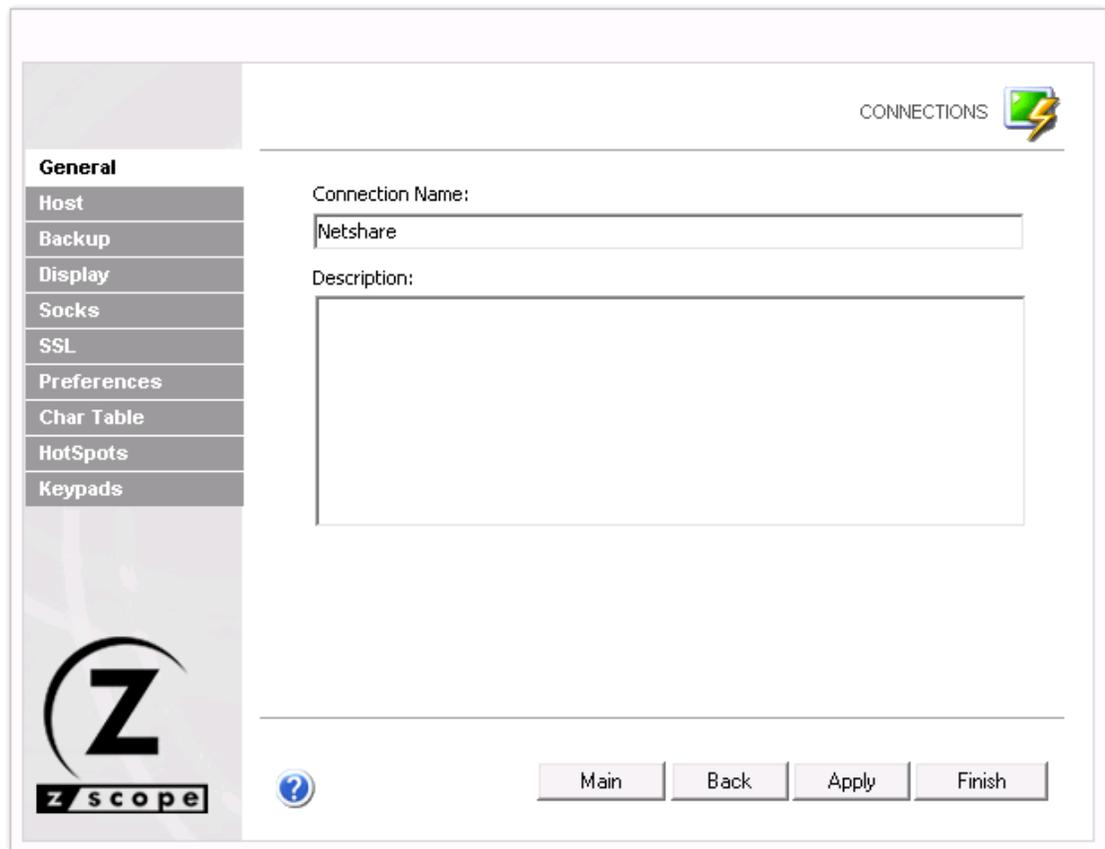
- [General](#)
- [Host](#)
- [Backup](#)
- [Display](#)
- [Socks](#)
- [SSL](#)
- [Preferences](#)
- [Char Table](#)
- [Hotspots](#)
- [Keypads](#)

You might also be interested in:

- [Unix/VT Connections Settings](#)
- [Creating a Connection in the Web Interface](#)

7.1.3.1 General

In the 'General' tab you will find the following parameters:



The screenshot displays the 'CONNECTIONS' configuration window in the z/scope Configuration Manager. The left sidebar shows a list of tabs: General, Host, Backup, Display, Socks, SSL, Preferences, Char Table, HotSpots, and Keypads. The 'Host' tab is currently selected. The main content area is titled 'CONNECTIONS' and features a lightning bolt icon. It contains two input fields: 'Connection Name' with the text 'Netshare' and 'Description' which is empty. At the bottom of the window, there are four buttons: 'Main', 'Back', 'Apply', and 'Finish'. A help icon (question mark) is also visible near the bottom left.

Connection Name

In this field you must enter a name for the connection.

Description

Here you can type a description for the connection.

Read more:

- [Mainframe/AS400 Connections - Host Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Backup Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Display Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Socks Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - SSL Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Preferences Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Char Table Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - HotSpots Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Keypads Settings \(Configuration Manager\)](#)

7.1.3.2 Host

In the 'Host' tab you will find the following parameters:

CONNECTIONS 

General

Host

Address: Port:

Extended SSL

Enable Keep Alive Socks Firewall

Has Backup

TN5250E Extended Info

User Id:

Password:





Address

URL or IP address of the host computer.

Port

TCP port defined at the host computer for Telnet access.

 Default Telnet port number is 23.

Extended

Enables Telnet Extended protocols (TN3270E or TN5250E). This enables 'User Id' and 'Password' input boxes for AS/400 connections.

Enable Keep alive

Enables keep-alive mechanism, needed for some Telnet servers.

Has Backup

Check this option if you would like to specify an alternate ip for this connection.

 When you check this option, the ['Backup' tab](#) will automatically appear in the connection settings dialog.

SSL

Enables the SSL (Secure Sockets Layer) protocol for the host.

 When you check this option, the 'SSL' tab will automatically appear in the connection settings dialog. See ['SSL' Tab](#). The SSL and Gateway options are mutually exclusive.

Socks Firewall

Enables support for Socks firewall.

 When you check this option, the 'Socks' tab will automatically appear in the connection settings dialog. See ['Socks' tab](#).

TN5250E Extended Info

These options, only available for TN5250 connections, provide the user with an enhanced security method defined by the TN5250E norm.

Read more:

- [Mainframe/AS400 Connections - General Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Backup Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Display Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Socks Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - SSL Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Preferences Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Char Table Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - HotSpots Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Keypads Settings \(Configuration Manager\)](#)

7.1.3.3 Backup

In the 'Backup' tab you will see a table showing the list of alternate hosts for the connection. If the connection fails, z/Scope will connect to an alternate host, starting with the first one in the list. If an alternate host fails, z/Scope will connect to the next one in the list.

To configure these settings you will find the following parameters:

Address

Enter here the IP address of the alternate host you would like to add for this connection

Device Name

Enter here the Device Name with which you would like to connect to this alternate host.

Port

Enter here the port number for this alternate host.



Move Up

Select a backup connection from the list and use this button to move it above other backup connections in the list.



Move Down

Select a backup connection from the list and use this button to move it below other backup connections in the list.

Add

Press this button to add the Address, Device Name and Port information entered above as a new host in the list. New hosts will be added last in the list.

Modify

Select a backup connection from the list and press this button to replace the selected host with the information entered in the fields 'Address', 'Device Name' and 'Port'.

Delete

Select a backup connection from the list and press this button to delete it from the list.

Read more:

- [Mainframe/AS400 Connections - General Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Host Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Display Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Socks Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - SSL Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Preferences Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Char Table Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - HotSpots Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Keypads Settings \(Configuration Manager\)](#)

7.1.3.4 Display

In the 'Display' tab you will find the following parameters:

CONNECTIONS 

General
Host
Backup
Display
Socks
Preferences
Char Table
HotSpots
Keypads

Display Type: 80 Columns
 132 Columns

Extended Attributes
 SYSREQ Command Dialog

Device Name:

Device Name Suffix:
 None Letter (A-Z) Number (1-9)

Treat invalid characters as nulls

HLLAPI Session
 Assign automatically the Session Name
Preferred Session Name:





Display Type

Select the desired resolution for the host.



Available resolutions vary according to the type of host you are connecting to.

Extended Attributes

Enables extended attributes for the connection.

SYSREQ Command Dialog

Only for AS/400 connections: enables a command line for the SysReq function.

Device Name

Specifies the logical unit or device name for the connection.

Device Name Suffix

Allows you to specify a suffix method to use for several connections.

Read more:

- [Mainframe/AS400 Connections - General Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Host Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Backup Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Socks Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - SSL Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Preferences Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Char Table Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - HotSpots Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Keypads Settings \(Configuration Manager\)](#)

7.1.3.5 Socks

In the 'Socks' tab you will find the following parameters:

The screenshot shows the 'Socks' configuration window in z/Scope. The sidebar on the left lists various settings tabs, with 'Socks' currently selected. The main configuration area is titled 'CONNECTIONS' and includes a dropdown menu for 'Type' (set to 'svSocks4'), text boxes for 'Address' and 'Port', a checkbox for 'Requires Authentication', and text boxes for 'UserId' and 'Password'. At the bottom of the window are buttons for 'Main', 'Back', 'Apply', and 'Finish', along with a help icon and the z/Scope logo.

 This tab only becomes available when the 'Socks' option is checked in the ['Host' tab](#).

Type

Indicates the type of Socks protocol you will be connecting to. z/Scope provides support for svSocks 4, 4A and 5 protocols.

Address

In this field you must enter the IP address of the Socks server.

Port

In this field you must enter the port number of the Socks service at the host.

Requires Authentication

When connecting with svSocks4A protocol and higher, you have the option of providing a User ID and a Password for authentication.

UserId

In this field you must enter your User ID.

Password

In this field you must enter your Password.

Read more:

- [Mainframe/AS400 Connections - General Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Host Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Backup Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Display Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - SSL Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Preferences Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Char Table Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - HotSpots Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Keypads Settings \(Configuration Manager\)](#)

7.1.3.6 SSL

In the 'SSL' tab you will find the following parameters:

 This tab only becomes available when the 'SSL' option is checked in the ['Host' tab](#).

SSL Method

Choose one of the available methods shown: SSL 2.0, SSL 3.0 or TLS 1.0.

Server Certificate

The 'Display certificate' option controls whether to show the Certificate Info immediately after establishing the connection. The other options refer to the policy adopted when dealing with certificates that do not meet certain security

conditions.

Client Certificate

Enter the file name of the certificate files that you own.

Read more:

- [Mainframe/AS400 Connections - General Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Host Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Backup Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Display Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Socks Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Preferences Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Char Table Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - HotSpots Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Keypads Settings \(Configuration Manager\)](#)

7.1.3.7 Preferences

In the 'Preferences' tab you will find the following parameters:

The screenshot shows the 'CONNECTIONS' configuration window with the 'Preferences' tab active. The left sidebar lists various settings categories: General, Host, Backup, Display, Socks, SSL, Preferences (selected), Char Table, HotSpots, and Keypads. The main content area includes the following options:

- Start Macro: [Empty text box]
- Start Navigator: [Empty text box]
- Automatically Start: [0] Connections.
- Keyboard Map: [Standard]
- Screen Style: [z/Scope]
- Scripting Directory: [Empty text box] ...
- Disable Auto-Suggestion
- Auto Reconnect
- Reconnection Delay: [10] seconds
- RuleSet File Name: [Empty text box] ...
- Create a new file, always.

At the bottom, there are buttons for 'Main', 'Back', 'Apply', and 'Finish'. A help icon (?) is also present.

Start Macro/Navigator

Select a [Macro](#) or a Navigator to start automatically when connecting.

Automatically Start [n] Connections

Allows you to specify the number of sessions of this connection that will be automatically established upon z/Scope start.

Keyboard Map

Select a [keyboard map](#) for this connection.

Screen Style

Allows you to select a default [Screen Style](#) for this connection.

Scripting Directory

Specify the folder on your local computer where script files will be stored.

Disable Auto-Suggestion

Check this option to have the Auto-Suggestion feature disabled by default for this connection.

Auto Reconnect

Check this option if you would like to automatically reconnect to the host after logging off.

Reconnection Delay

Specify in this field the amount of time (in seconds) that you would like the system to take before auto reconnecting to the host.

RuleSet File Name

Set here the file name and location of the *.xsm XML file that establishes the rules for saving and auto completing variables in the screen.

Create a new file, always

Use this checkbox to generate your first ruleset file automatically for the connection. Uncheck this option to edit the file, or leave the checkmark to have it regenerate each time you run z/Scope.

Read more:

- [Mainframe/AS400 Connections - General Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Host Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Backup Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Display Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Socks Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - SSL Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Char Table Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - HotSpots Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Keypads Settings \(Configuration Manager\)](#)

7.1.3.8 Char Table

In the 'Char Table' tab you will find the following parameters:

CONNECTIONS 

Codepage:
United States [CP037/2]

Use External File:
[] ...

Virtual Keyboard:
US International

z scope  Main Back Apply Finish

Codepage

Allows you to select an internal Character Conversion Table. See [Internal Conversion Tables](#).

Use External File

Mark this option if you to additionally enter the file name (.ebc) of an external Character Conversion Table to be used for the connection.

Virtual Keyboard

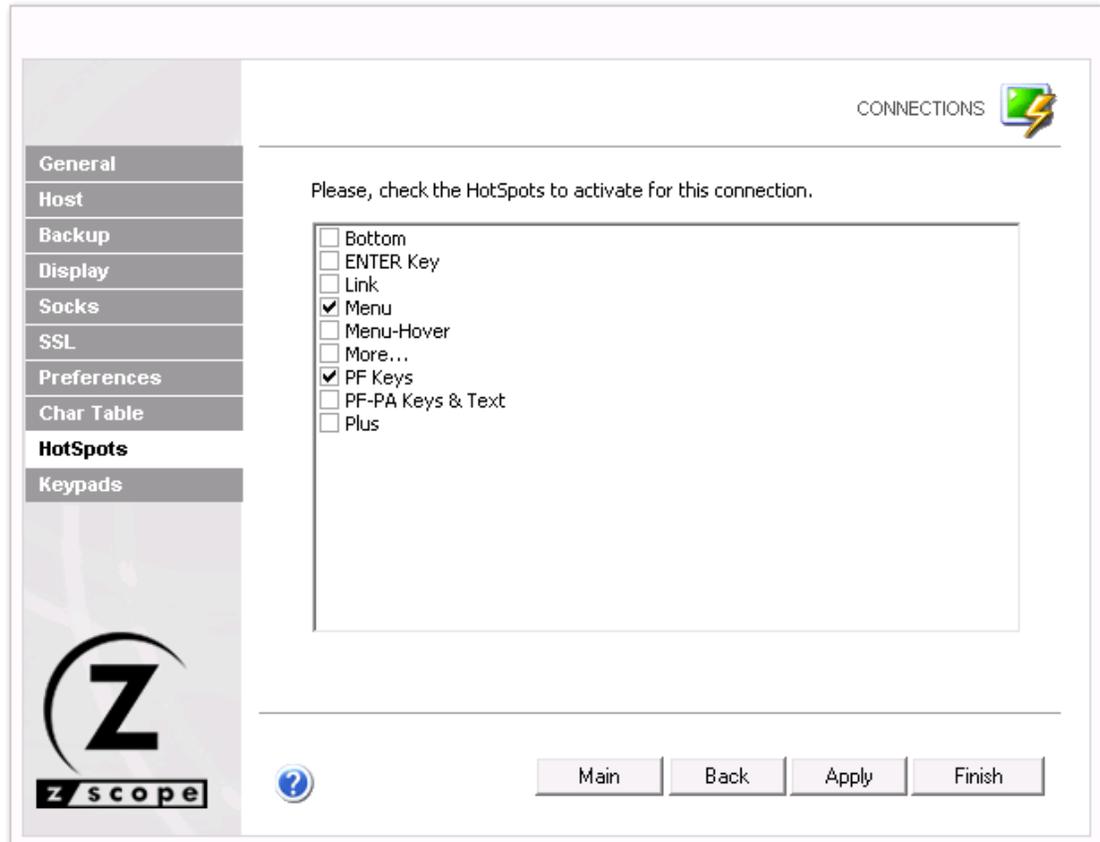
Select the language/format to be used on mobile devices virtual keyboards.

Read more:

- [Internal Conversion Tables](#)
- [Using an external Character Table](#)
- [Mainframe/AS400 Connections - General Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Host Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Backup Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Display Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Socks Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - SSL Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Preferences Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - HotSpots Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Keypads Settings \(Configuration Manager\)](#)

7.1.3.9 HotSpots

In the 'HotSpots' tab you can choose the HotSpots that will be available when working with the connection.

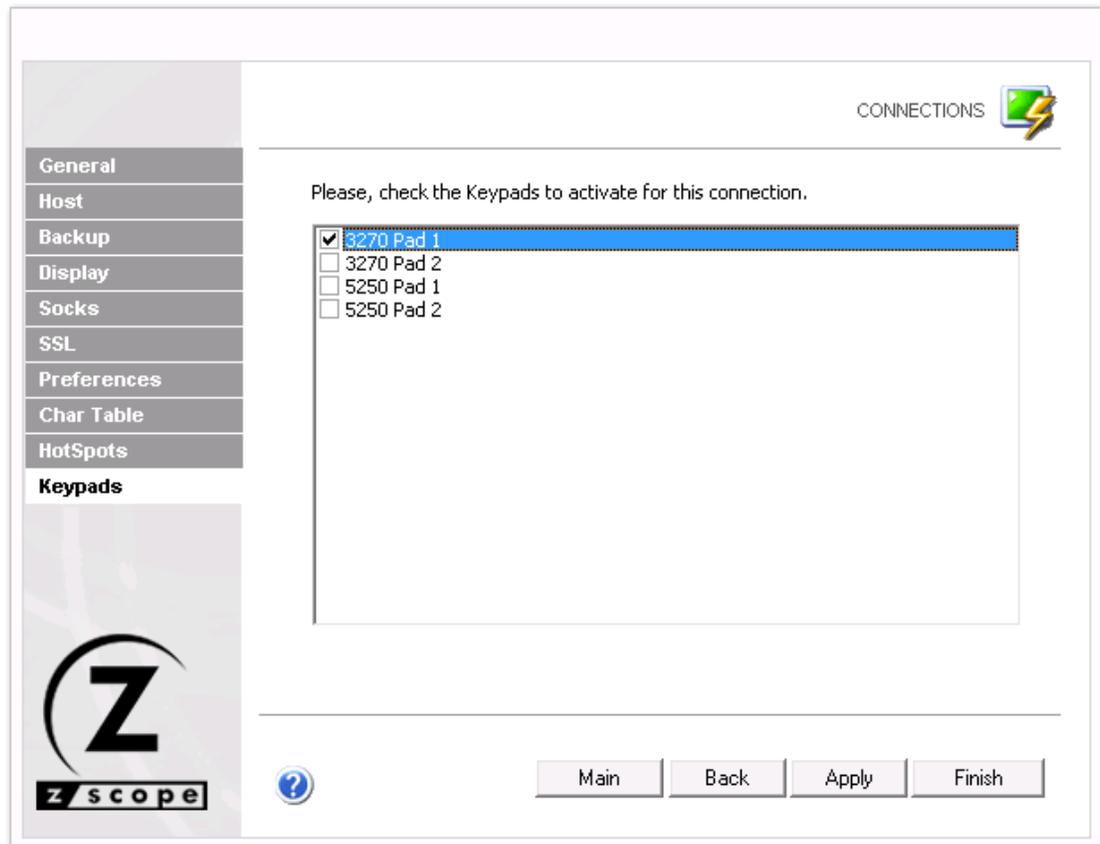


Read more:

- [HotSpots Settings](#)
- [Using HotSpots](#)
- [Mainframe/AS400 Connections - General Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Host Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Backup Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Display Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Socks Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - SSL Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Preferences Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Char Table Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - HotSpots Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Keypads Settings \(Configuration Manager\)](#)

7.1.3.10 Keypads

In the 'Keypads' tab you can choose the Keypads that will be available when working with the connection.

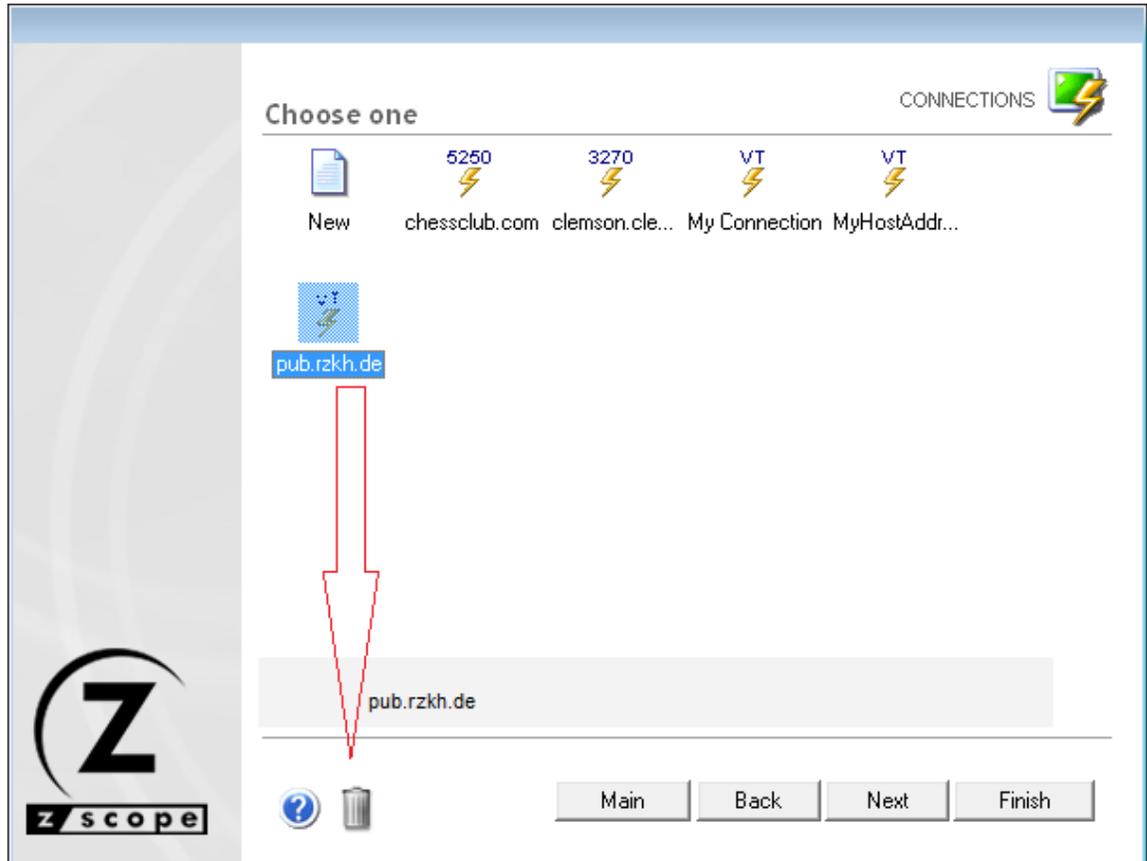


Read more:

- [Mainframe/AS400 Connections - Keypads Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - General Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Host Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Backup Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Display Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Socks Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - SSL Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Preferences Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Char Table Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - HotSpots Settings \(Configuration Manager\)](#)
- [Mainframe/AS400 Connections - Keypads Settings \(Configuration Manager\)](#)

7.1.4 Deleting a Connection

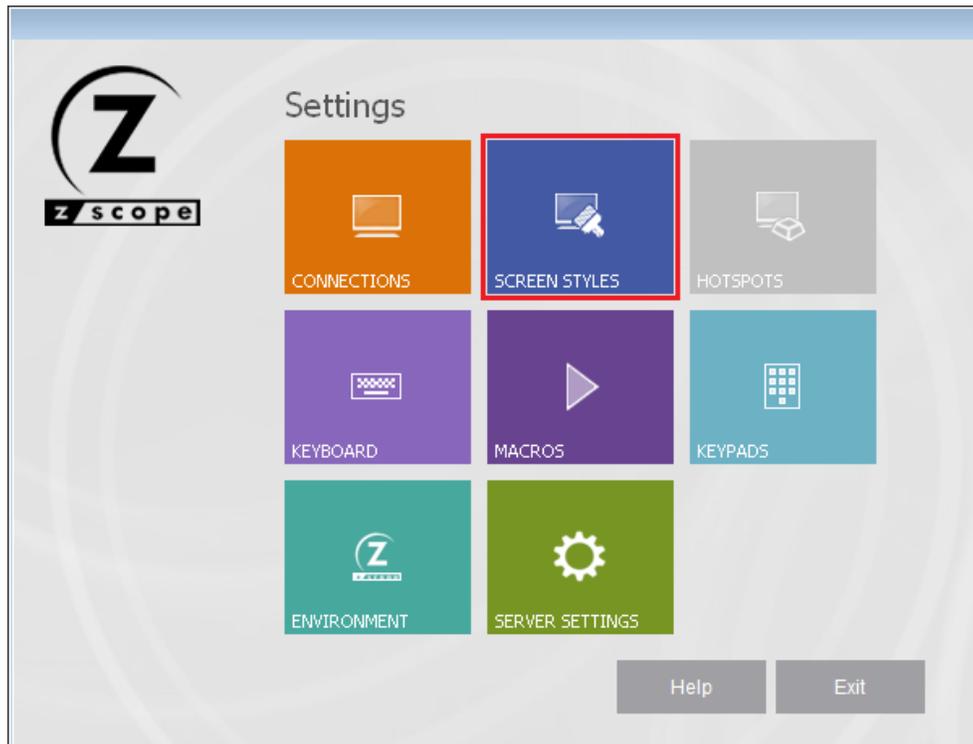
To delete a connection, first select it and then click on the trash can icon. You can also drag and drop the connection you want to delete on the trash can icon.



 Connection deletion is not undoable, which means that once you delete a particular connection, it will be permanently lost.

7.2 Screen Styles

Screen Styles are managed on the 'Configuration Manager' through the 'Screen Styles' icon.



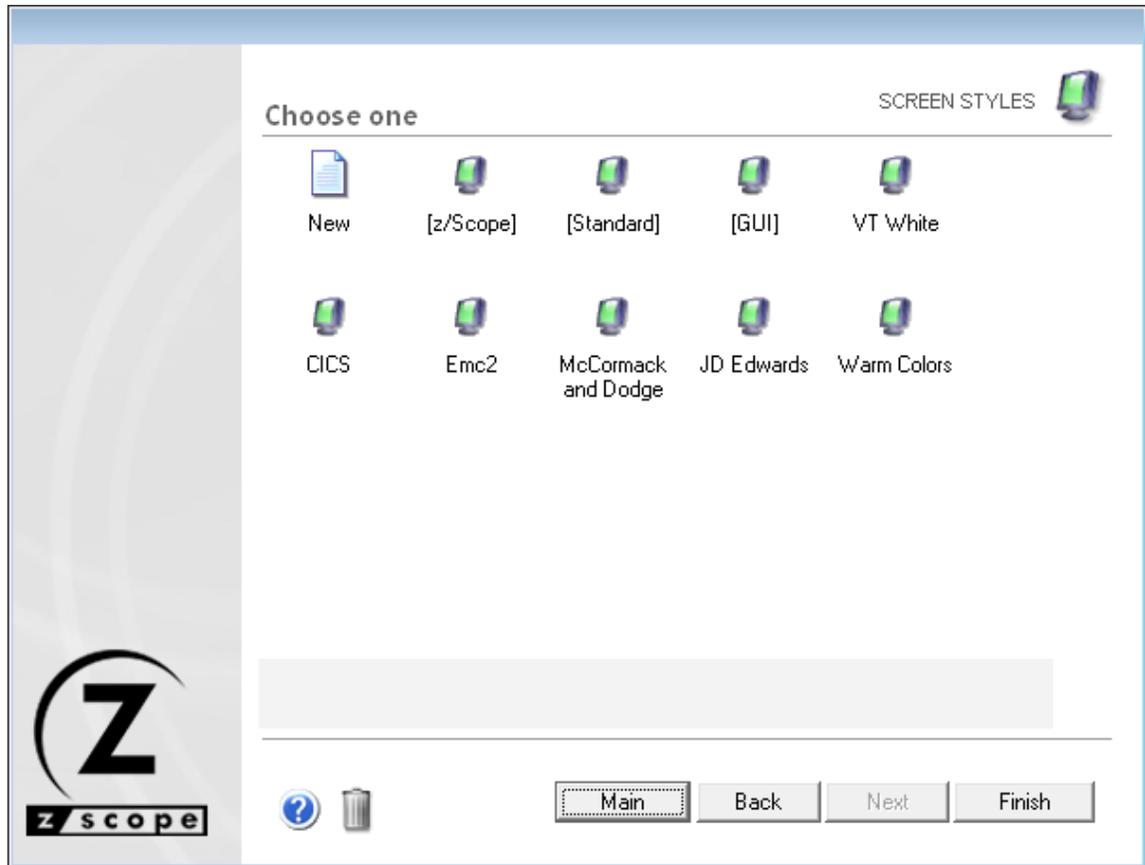
For more information about how to manage Screen Styles, consult the following sections:

- [Creating/Editing Screen Styles](#)
- [Deleting Screen Styles](#)

7.2.1 Creating/Editing Screen Styles

In the Screen Styles management dialog you will find a list of the existing Screen Styles. You will also find the 'New' icon which you can use to create a new Screen Style step by step.

If you want to modify the attributes of a previously created Screen Style, select it using the mouse and then click on 'Next', or just simply double-click on it.



After you click on 'Next', you will be presented with a dialog in which you will have access to all the attributes of the Screen Style you are creating or editing. For a detailed description of these parameters, consult the following sections:

- [General](#)
- [Cursor](#)
- [Field Options](#)
- [Color Mapping](#)
- [5250 Attributes](#)
- [VT Defaults](#)

7.2.1.1 General

In the 'General' tab you will find the following parameters:

The screenshot shows the 'SCREEN STYLES' configuration window. The 'General' tab is active. The 'Name' field contains '[z/Scope]'. The 'Available for Host Type' section has three checked checkboxes: 'UNIX/VT', 'IBM AS/400', and 'IBM Mainframe'. Below these are three radio buttons: '[z/Scope]' (selected), '[Standard]', and '[GUI]', followed by a 'Preset' button. At the bottom are buttons for 'Main', 'Back', 'Apply', and 'Finish'. A 'z scope' logo and a help icon are also visible.

Name

In this field you must enter a name for the Screen Style.

Available for Host Type

Make your Screen Style available for different type of hosts by marking the options below.

Preset

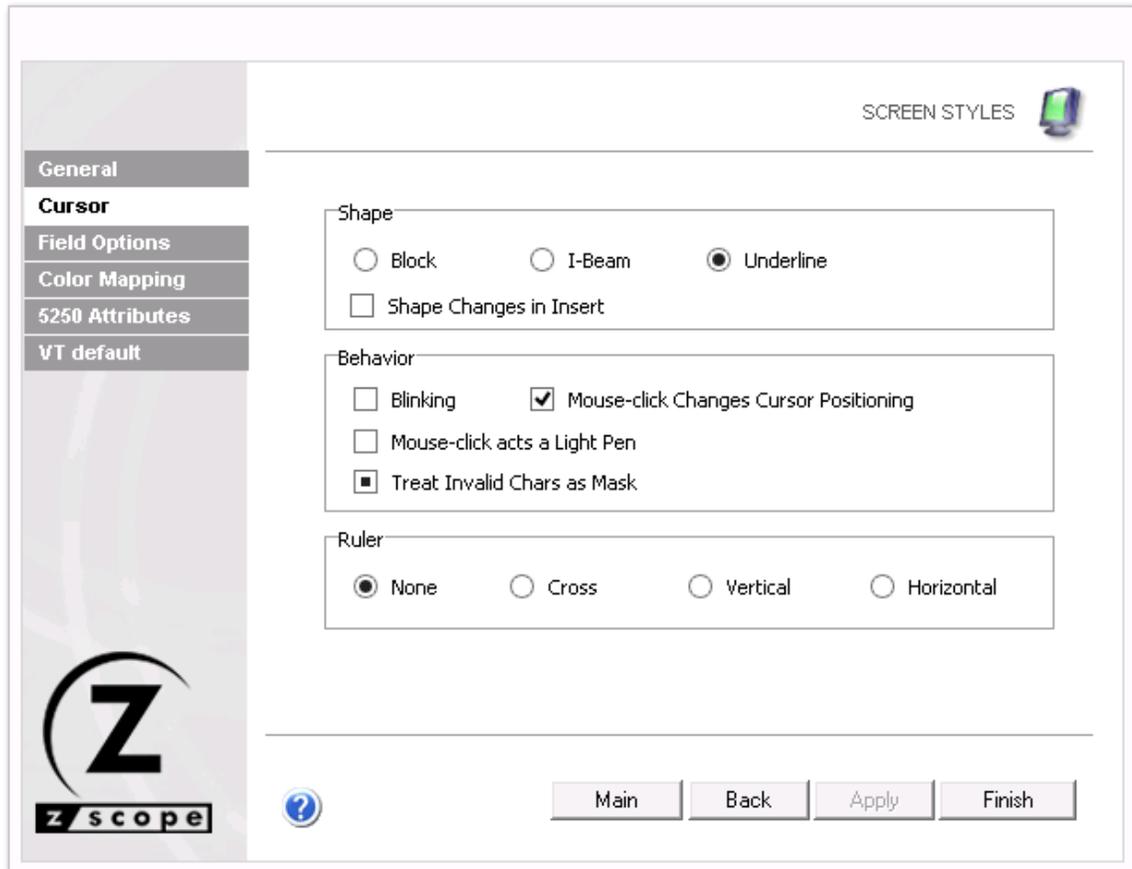
Select a base Screen Style to inherit its attributes to the new Screen Style.

Read more:

- [Screen Styles - Cursor Settings](#)
- [Screen Styles - Field Options Settings](#)
- [Screen Styles - Color Mapping Settings](#)
- [Screen Styles - 5250 Attributes Settings](#)
- [Screen Styles - VT Defaults Settings](#)

7.2.1.2 Cursor

In the 'Cursor' tab you will find the following parameters:



Shape

Choose between three different cursor shapes: *Block*, *I-Beam* or *Underline*.

Shape Changes in Insert

Have the cursor shape change when you are in insert mode. This is useful to remember if you are inserting or overwriting.

Behavior

Check the *Blinking* option to make the cursor blink.

Check the *Mouse-click changes cursor positioning* option if you want to be able to change the current cursor position on the screen using the mouse.

Check the *Mouse-click acts as a Light Pen* option to treat mouse-clicks as a Light Pen input.

Check the *Treat Invalid Chars as Mask* option to treat the invalid characters as a mask.

In some screens, the host indicates characters that were invalid for the field type (such as an alphabetic character in a numeric field) and they cannot be edited or deleted.

When the *Treat Invalid Chars as Mask* option is checked, those characters are treated as a mask and they don't produce this error. When it is unchecked, they are treated as

errors (and can't be edited). When it's grayed, it means that the default value will apply.

Ruler

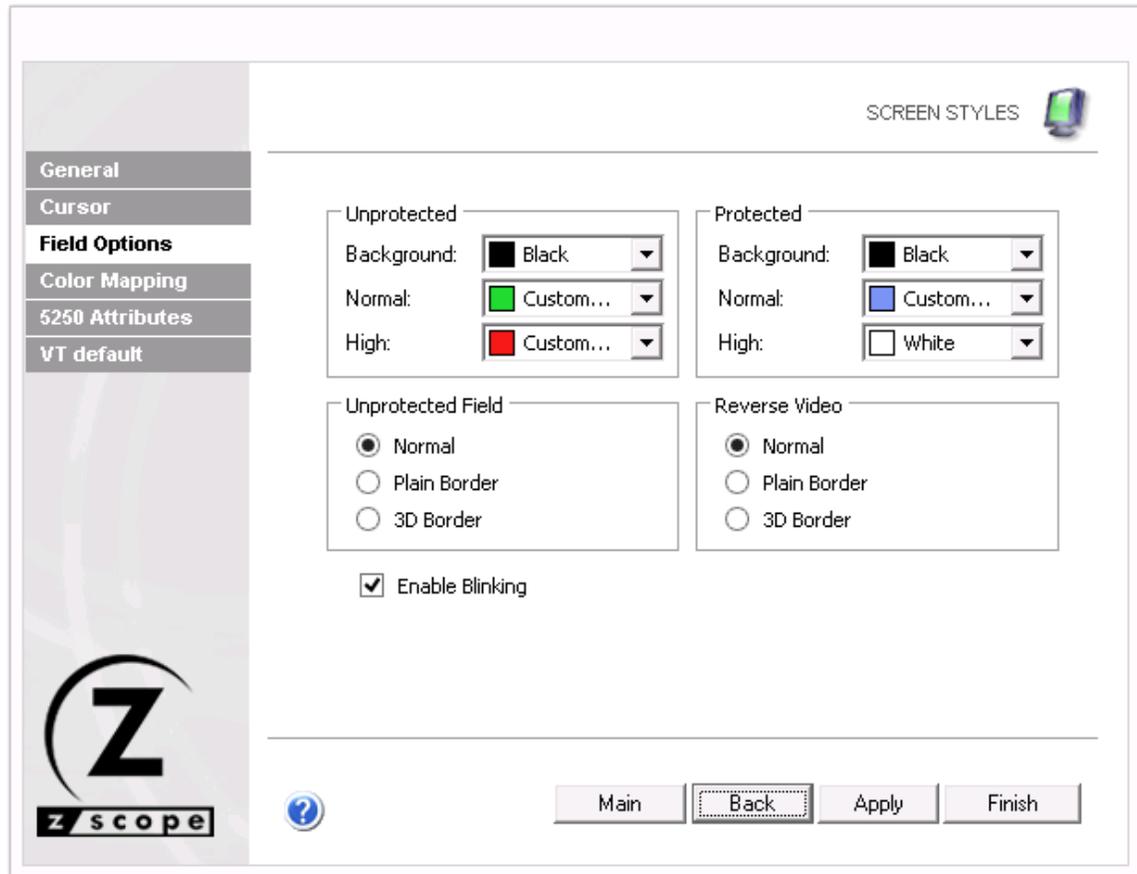
Specify if you want guidelines indicating the cursor's position on the screen. You can choose to display vertical, horizontal, or both (cross) guidelines. If you don't want to show guidelines, select the *None* option.

Read more:

- [Screen Styles - General Settings](#)
- [Screen Styles - Field Options Settings](#)
- [Screen Styles - Color Mapping Settings](#)
- [Screen Styles - 5250 Attributes Settings](#)
- [Screen Styles - VT Defaults Settings](#)

7.2.1.3 Field Options

In the 'Field Options' tab you will find the following parameters:



Unprotected

Allows to specify the background color and the foreground color for normal and high intensity unprotected fields.

Protected

Allows to specify the background color and the foreground color for normal and high intensity protected fields.

Unprotected Field

Sets normal, plain border or 3D style for unprotected (input) fields.

Reverse Video

Sets normal, plain border or 3D style for reverse video attribute in the display emulation.

Enable Blinking

Check this option if you want the cursor to blink when positioned in an input field.

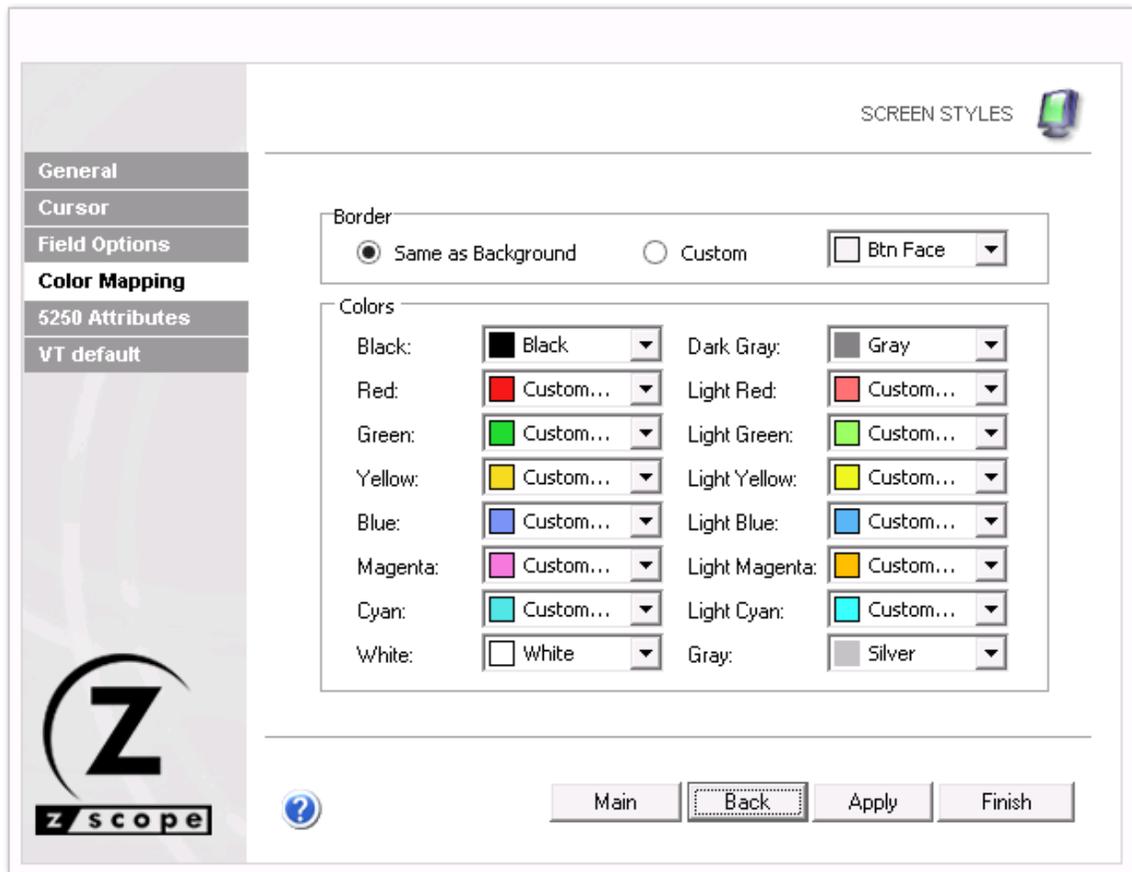
Read more:

- [Screen Styles - General Settings](#)

- [Screen Styles - Cursor Settings](#)
- [Screen Styles - Color Mapping Settings](#)
- [Screen Styles - 5250 Attributes Settings](#)
- [Screen Styles - VT Defaults Settings](#)

7.2.1.4 Color Mapping

In the 'Color Mapping' tab you will find the following parameters:



Border

Specifies whether the border color will match the background ('Same as Background') or will have the color specified in the following combobox ('Custom').

Colors

Allows to remap the colors used for 3270 and 5250 extended attributes and VT/ANSI emulation.

Read more:

- [Screen Styles - General Settings](#)
- [Screen Styles - Cursor Settings](#)
- [Screen Styles - Field Options Settings](#)
- [Screen Styles - 5250 Attributes Settings](#)
- [Screen Styles - VT Defaults Settings](#)

7.2.1.5 5250 Attributes

In the '5250 Attributes' tab you will find the following parameters:

SCREEN STYLES 

General
Cursor
Field Options
Color Mapping
5250 Attributes
VT default

z scope 

Attribute to Color Mapping

20	 Custom	28	 Custom	30	 Custom	38	 Custom
21	 Custom	29	 Custom	31	 Custom	39	 Custom
22	 White	2A	 Custom	32	 Custom	3A	 Custom
23	 White	2B	 Custom	33	 Custom	3B	 Custom
24	 Custom	2C	 Custom	34	 Custom	3C	 Custom
25	 Custom	2D	 Custom	35	 Custom	3D	 Custom
26	 White	2E	 Custom	36	 Custom	3E	 Custom

Enable 5250 Specific Attribute to Color Mapping.

Main Back Apply Finish

Attribute to Color Mapping

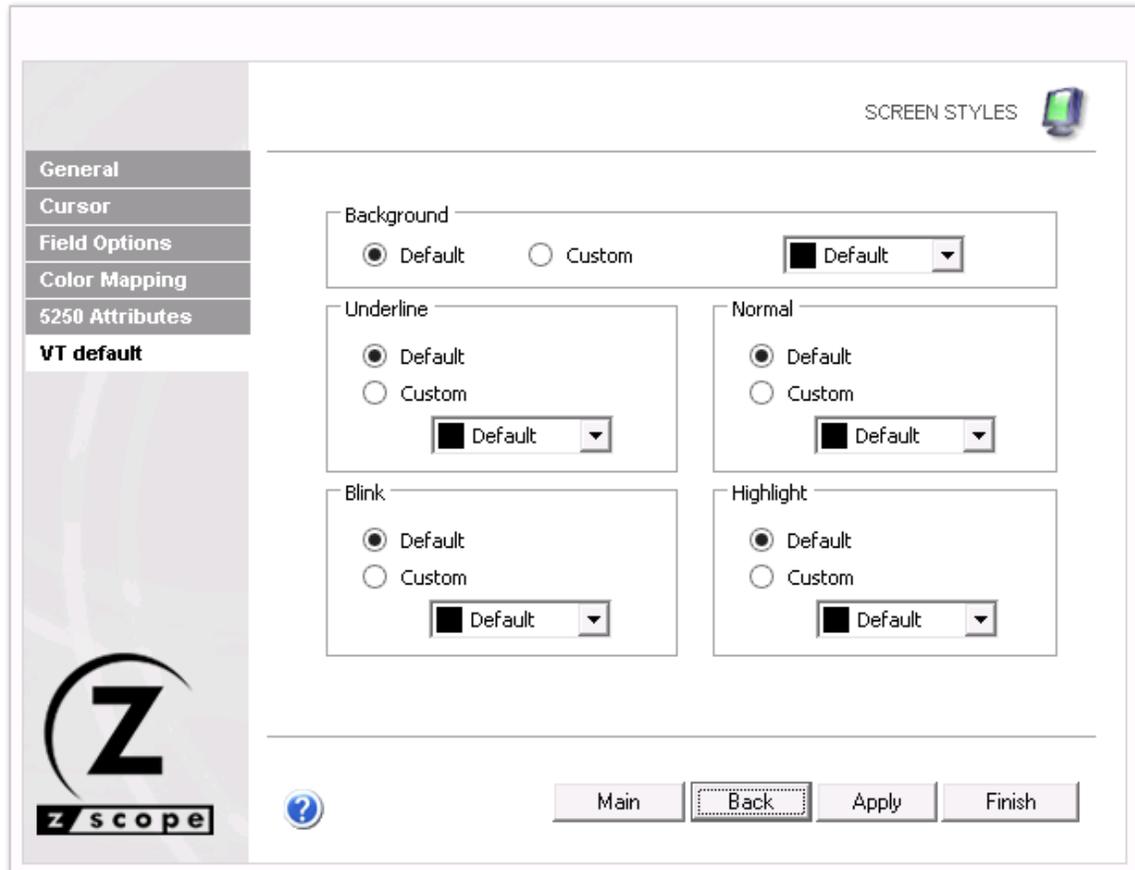
Allows you to map 5250 protocol specific attributes to a color. In order to be able to change these settings, the *Enable 5250 specific attributes to color mapping* option must be checked.

Read more:

- [Screen Styles - General Settings](#)
- [Screen Styles - Cursor Settings](#)
- [Screen Styles - Field Options Settings](#)
- [Screen Styles - Color Mapping Settings](#)
- [Screen Styles - VT Defaults Settings](#)

7.2.1.6 VT Defaults

In the 'VT Defaults' tab you will find the following parameters:



Background

Specifies the background color for VT terminal emulation. Default is black.

Underline

Specifies the foreground color assigned to underlined characters when no color attribute is specified by the VT host.

Normal

Specifies the foreground color assigned to low intensity characters when no color attribute is specified by the VT host.

Blink

Specifies the foreground color assigned to blinking characters when no color attribute is specified by the VT host.

Highlight

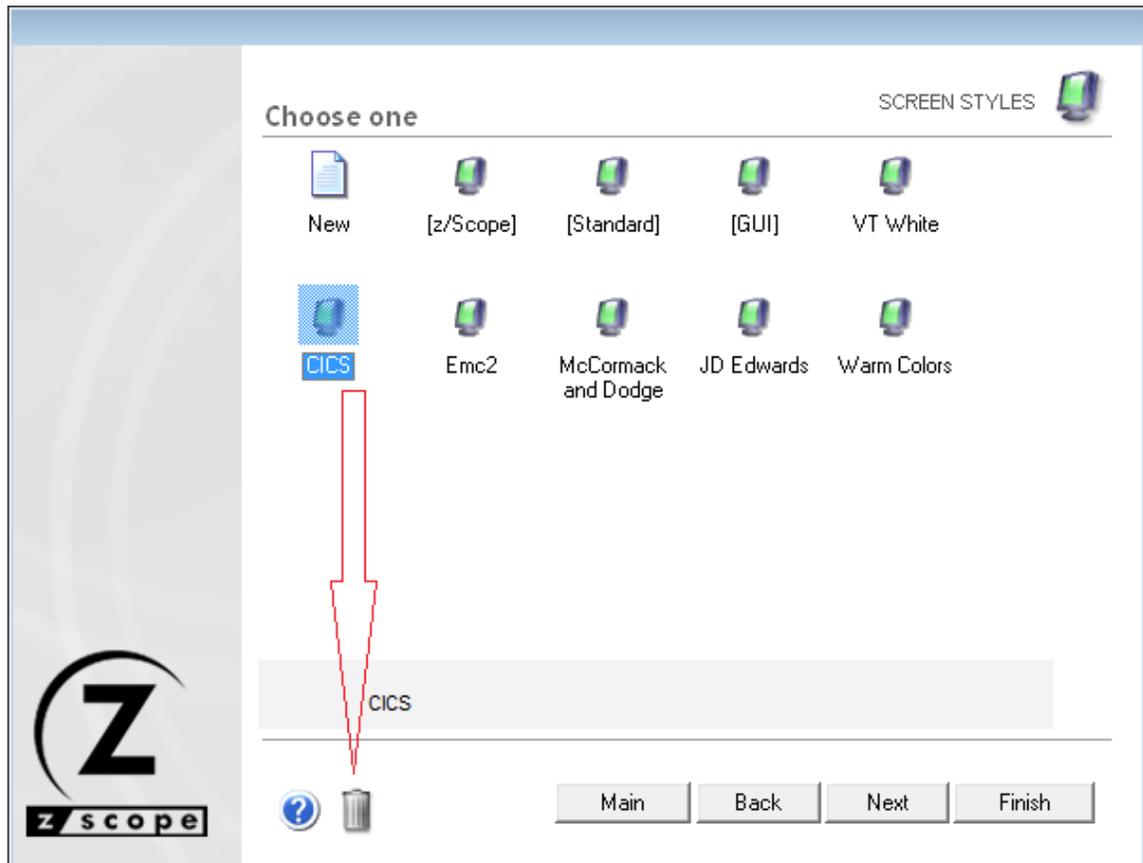
Specifies the foreground color assigned to high intensity characters when no color attribute is specified by the VT host.

Read more:

- [Screen Styles - General Settings](#)
- [Screen Styles - Cursor Settings](#)
- [Screen Styles - Field Options Settings](#)
- [Screen Styles - Color Mapping Settings](#)
- [Screen Styles - 5250 Attributes Settings](#)

7.2.2 Deleting Screen Styles

To delete a Screen Style, first select it and then click on the trash can icon. You can also drag and drop the Screen Style you want to delete on the trash can icon.



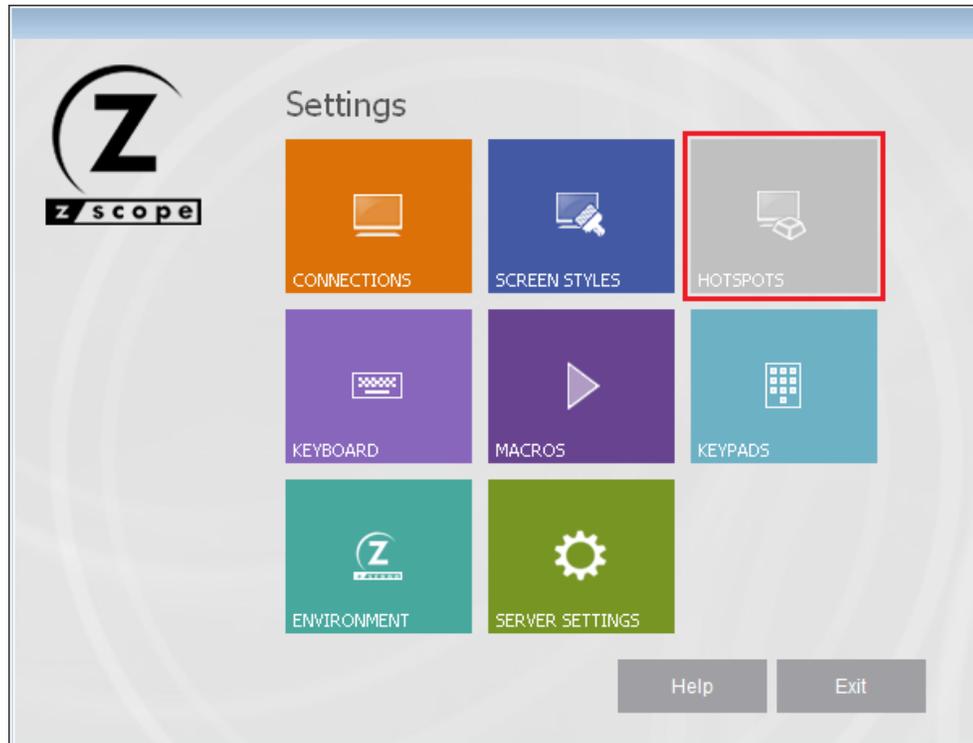
 Screen Styles deletion is not undoable, which means that once you delete a particular Screen Style, it will be permanently lost.

Read More:

- [Creating and Editing Screen Styles](#)

7.3 Hotspots

Hotspots are managed on the 'Configuration Manager' through the 'Screen Styles' icon.



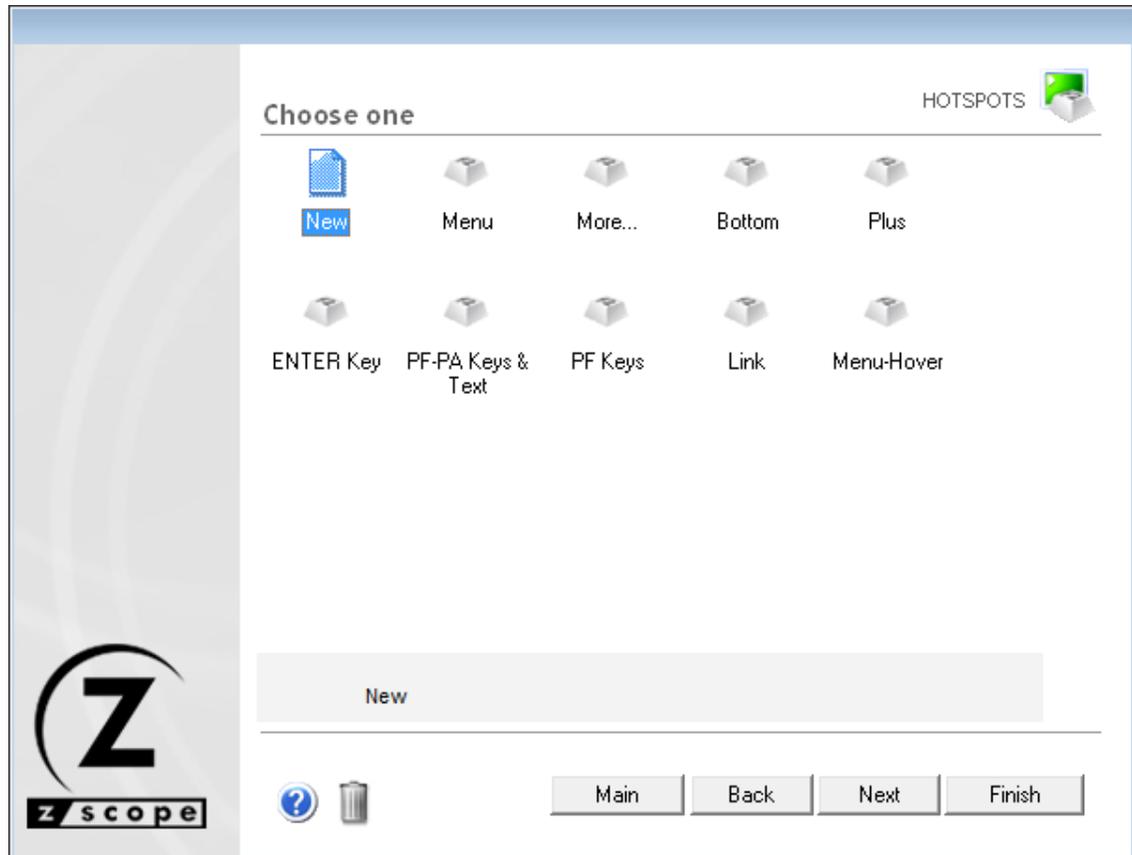
For more information about how to manage Hotspots, consult the following sections:

- [Creating/Editing a HotSpot](#)
- [Deleting a HotSpot](#)

7.3.1 Creating/Editing a HotSpot

In the HotSpots management dialog you will find a list of the existing Hotspots. You will also find the 'New' icon, which you can use to create a new HotSpot.

If you want to modify the attributes of a previously created Hotspot, select it using the mouse and then click on 'Next', or just simply double-click on it.



After you click on 'Next', you will be presented with a dialog in which you will have access to all the attributes of the Hotspot you are creating or editing. For a detailed description of these parameters, consult the following sections:

- [General](#)
- [Rules](#)
- [Style](#)



In order to be able to use your Hotspot within a Connection, you must first enable the Hotspot for that particular connection from the [Connections Settings](#) dialog.

7.3.1.1 General

In the 'General' tab you will find the following parameters:



The screenshot shows a web-based configuration interface for 'HOTSPOTS'. On the left is a vertical navigation menu with three tabs: 'General' (selected), 'Rules', and 'Style'. Below the menu is the 'z scope' logo. The main content area is titled 'HOTSPOTS' and contains a 'Name:' label followed by a text input field containing 'ENTER Key'. Below this is a section titled 'Available for Host Type' with three checked checkboxes: 'UNIX/VT', 'IBM AS/400', and 'IBM Mainframe'. At the bottom right are four buttons: 'Main', 'Back', 'Apply', and 'Finish'. A help icon (question mark in a circle) is located at the bottom left of the main content area.

Name

In this field you must enter a name for your Hotspot.

Available for Host Type

Make your Screen Style available for different type of hosts by marking the options below.

Read more:

- [HotSpots - Rules Settings](#)
- [HotSpots - Style Settings](#)
- [Deleting a HotSpot](#)

7.3.1.2 Rules

In the 'Rules' tab you will find the following parameters:

The screenshot shows the 'Rules' configuration window in zScope. The window has a sidebar with three tabs: 'General', 'Rules', and 'Style'. The 'Rules' tab is selected. The main area is titled 'Rules:' and contains a table with the following data:

Hot Text	Type	Action for 3270/5250	Action
\bENTER\b	Keys	{ENTER}	{ENTER}

Below the table, there is a 'Pattern' field containing '\bENTER\b' and an 'Add' button. There are three checkboxes: 'Case Sensitive' (checked), 'Text Is Preceded by a Space' (unchecked), and 'Text Is Followed by a Space' (unchecked). There is also a 'Regular Expression' checkbox (checked). Below these are 'Action' dropdowns for 'Send Keystrokes', 'Keystrokes (3270/5250): {ENTER}' with an 'ATTN' dropdown, and 'Keystrokes (VT): {ENTER}' with an 'ENTER' dropdown. At the bottom are 'Main', 'Back', 'Apply', and 'Finish' buttons.

Rules grid

This grid contains the currently defined rules for the selected Hotspot.

Pattern

In this field you must type a rule in the form of a Regular Expression to match the screen string you want to turn into a HotSpot. If you are not familiar with Regular Expressions, see [Appendix B](#).

Case sensitive

Check this option if you want to consider the case when matching the Hot text.

Text is followed/preceded by a space

Check this options to specify that the Pattern will be matched only if preceded and/or followed by a blank character.

Regular Expression

Check this option to enable regular expressions in the Pattern field.

Action

This field specifies the action to be performed by the Hotspot when it is clicked by the user. Available options are:

- Send keystrokes: Select this option if you want to specify keystrokes to be sent in response to the HotSpot activation.
- Start a Macro: Select this option if you want to specify a Macro to be started in response to the HotSpot activation.

Keystrokes

In this field you can type the text that you want to be sent as keystrokes. You can also specify keys to be pressed; just select a key from the list and press the '+' button.



Note that keys must be enclosed in brackets (ie. {ENTER}).

This option is only available if the 'Send keystrokes' option was selected in the 'Action' field.

This is what the 'Rules' tab looks like when you select the 'start a macro' option:

HOTSPOTS

General

Rules

Style

Rules:

Hot Text	Type	Action for 3270/5250	Action
\bENTER\b	Keys	{ENTER}	{ENTE

Pattern:

Case Sensitive

Text Is Preceded by a Space

Text Is Followed by a Space

Regular Expression

Action:

Name:

Name

In this field you can type the name of a Macro to be started in response to the Hotspot activation. You can use the 'Open' button to select a macro from the

configuration directory.



This option is only available if the 'Start a macro' option was selected in the 'Action' field.

- To add a new Rule to the grid, follow these steps:

1. In the 'Pattern' field, enter a Regular Expression to match the string you want to turn into a HotSpot, along with the adequate case and blank options.
2. Select the action to be performed by the Hotspot when it is clicked by the user. Either choose the 'Send Keystrokes' or the 'Start a macro' option.
3. Type the keystrokes or the name of a macro according to the action selected before.



To add a key, select it from the key list and press the 'Add' button next to it. Keys can also be entered manually by enclosing them in brackets (ie. {ENTER}).

4. Click on the 'Add' button.

The new Rule you defined will now appear in the Rules grid.

- To modify an already defined Rule, do the following:

1. Select the Rule you want to modify from the Rules grid.
2. Modify the already defined 'Pattern' and 'Action' parameters as desired.
3. Click on the 'Replace' button to apply the changes to the Rule.

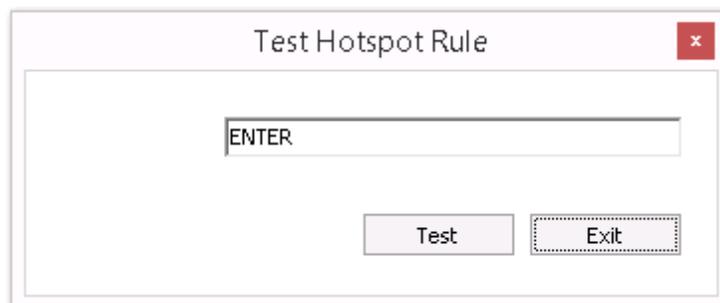
- To delete a Rule from the Rules grid, proceed this way:

1. Select the Rule that you want to delete from the Rules grid.
2. Click on the 'Delete' button.

The Rule you selected will be removed from the Rules grid.

- To test the results of a simulated screen text string, follow this steps:

1. Click on the 'Test' button. The 'Test Hotspot Rule' dialog will be displayed.



2. In the 'Text string' field, type the screen text simulation to be evaluated.

3. Click on the 'Test' Button. If the string you typed matches the current rule specified for the Hotspot, a message informing the action to be performed in response to the Hotspot activation will be displayed.
4. Click on the 'Exit' button to close this dialog and return to the 'Rules' tab.



This option is only available if the 'Send Keystrokes' option was selected in the 'Action' field.

Read more:

- [Appendix B - Regular Expressions](#)
- [Hotspots - General Settings](#)
- [HotSpots - Style Settings](#)
- [Deleting a HotSpot](#)

7.3.1.3 Style

In the 'Style' tab you will find the following parameters:

The screenshot shows the 'Style' configuration window for zScope. The window is titled 'z scope' and has a sidebar with three tabs: 'General', 'Rules', and 'Style'. The 'Style' tab is selected. The main content area is divided into several sections:

- Valid Area:** A section with four spinners: 'First Row' (3), 'Last Row' (27), 'First Col.' (1), and 'Last Col.' (132).
- Style:** A section with a 'Show Format' dropdown menu set to 'Button'.
- Colors:** A section with two dropdown menus: 'Foreground' (Black) and 'Background' (Button Face).
- Show in Toolbar:** A checkbox that is currently unchecked.

In the top right corner, there is a 'HOTPOTS' label and a small icon of a computer monitor. At the bottom of the window, there are four buttons: 'Main', 'Back', 'Apply', and 'Finish'. A help icon (question mark) is also visible in the bottom left corner of the main area.

Valid Area

Specify the screen coordinates for the area that you want the Hotspot to work in.

Style

Choose among several display formats for the Hotspot from the drop-down list:

- None: The target string is left unaltered.
- Plain: The target string is replaced with a labeled plain button.
- Link: The target string is underlined web-link style.
- Button: The target string is replaced with a labeled 3D button.
- Hover: This works similarly to the 'Link' format, only that the target string is only underlined when the mouse pointer is dragged over it.

Colors

Choose a foreground and a background color for the Hotspot.

Show in Toolbar

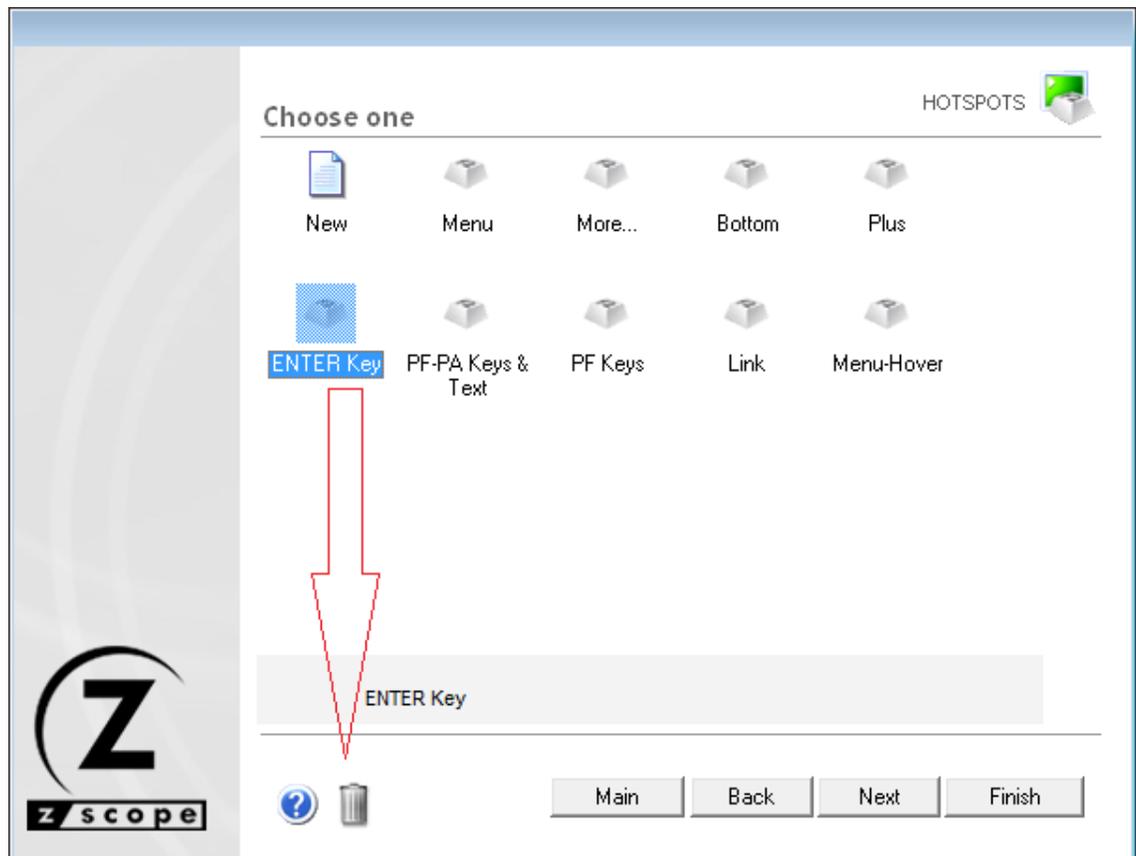
Check this option if you want Hotspots to appear in a dynamic toolbar in the Emulation Display. See [Using Hotspots](#).

Read more:

- [Hotspots - General Settings](#)
- [HotSpots - Rules Settings](#)
- [Deleting a HotSpot](#)

7.3.2 Deleting a HotSpot

To delete a Hotspot, first select it and then click on the trash can icon. You can also drag and drop the Hotspot you want to delete on the trash can icon.



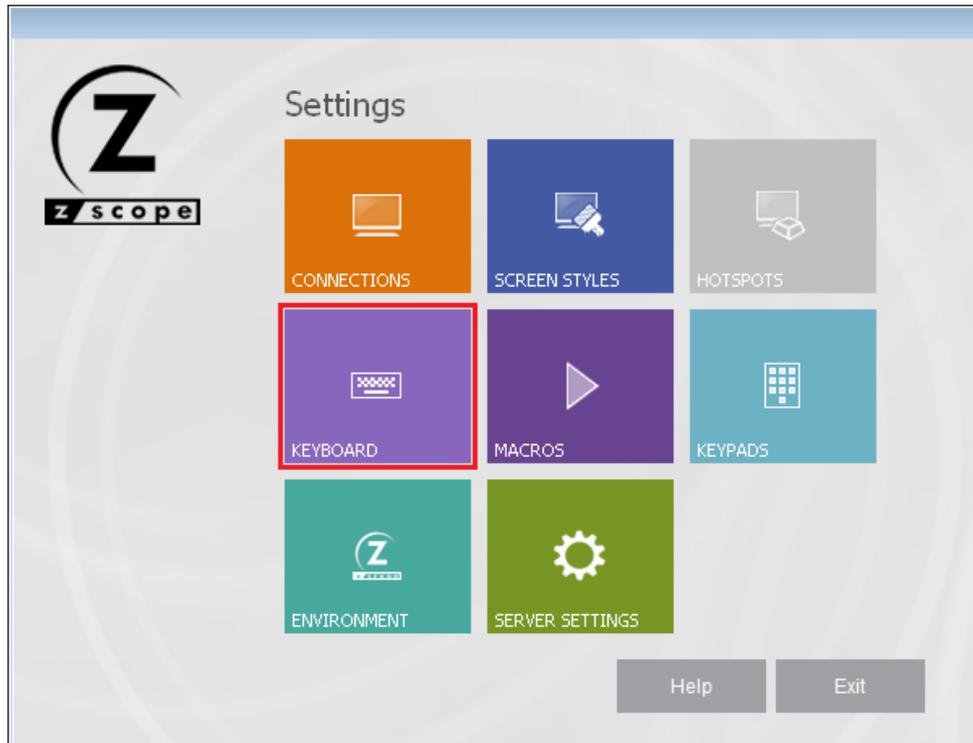
 Hotspot deletion is not undoable, which means that once you delete a particular Hotspot, it will be permanently lost.

Read more:

- [Creating and Editing a HotSpot](#)

7.4 Keyboard

Keyboards are managed on the 'Configuration Manager' through the 'Keyboard' icon.

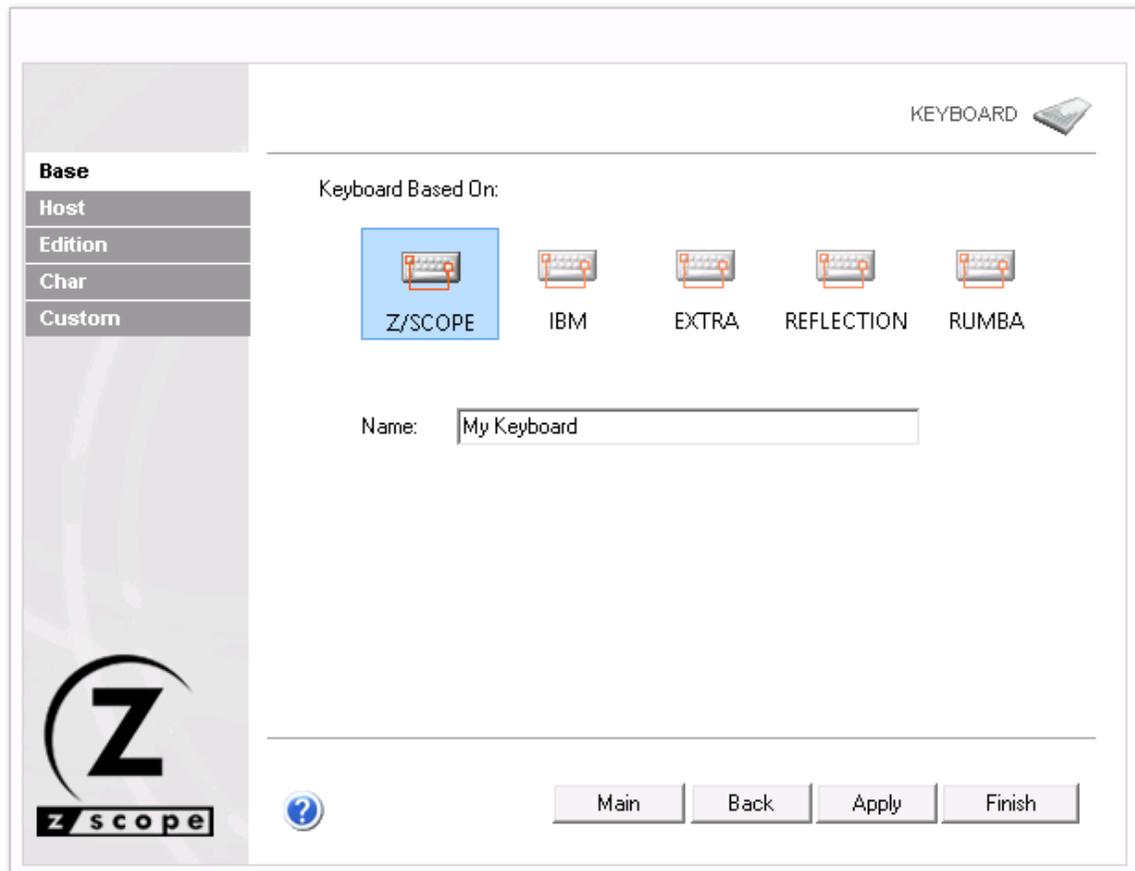


For more information about Keyboard settings, consult the following sections:

- [Base](#)
- [Host](#)
- [Edition](#)
- [Char](#)
- [Custom](#)
- [Keyboards](#)

7.4.1 Base

In the 'Base' tab you will find the following parameters:



Keyboard Based On

Select the keyboard layout that best matches the one you have.

To select the most appropriate default keyboard, visit the following sections:

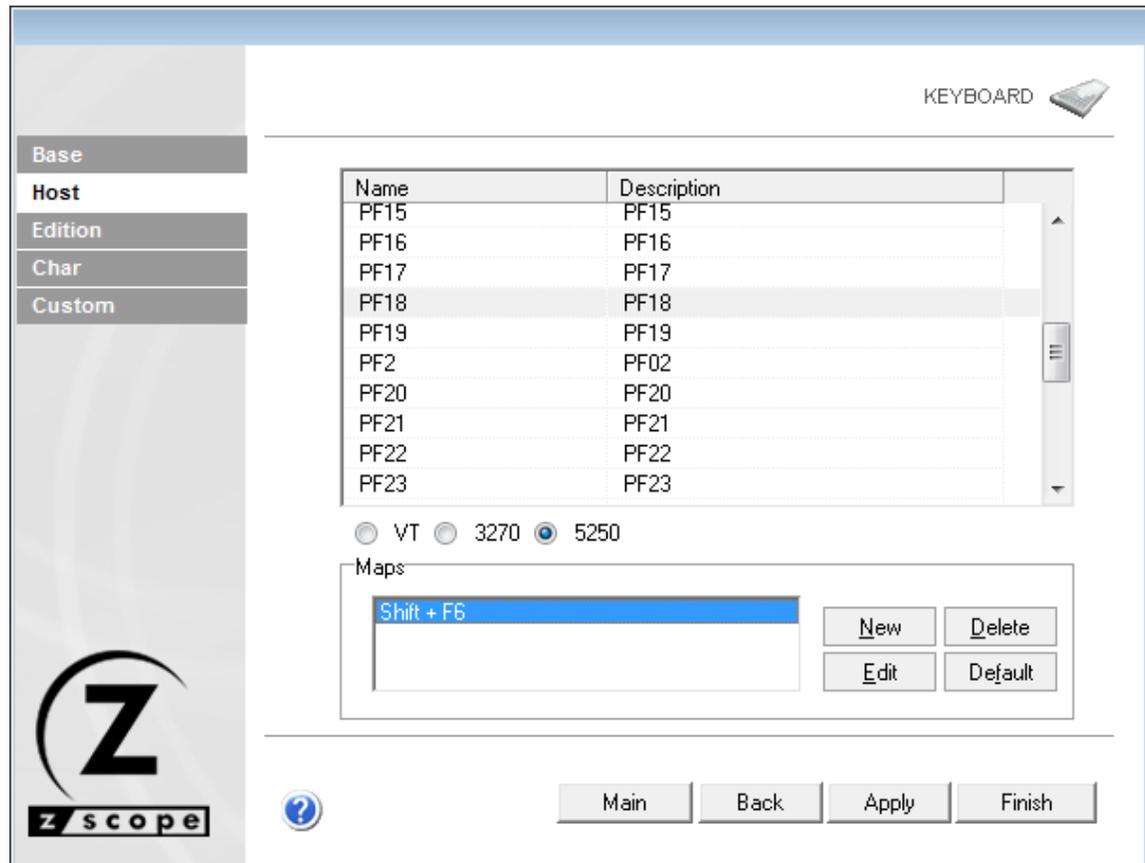
- [z/Scope Keyboard Map](#)
- [IBM Keyboard Map](#)
- [EXTRA Keyboard Map](#)
- [IRMA Keyboard Map](#)
- [RUMBA Keyboard Map](#)

Read more:

- [Keyboard - Host Settings](#)
- [Keyboard - Edition Settings](#)
- [Keyboard - Char Settings](#)
- [Keyboard - Custom Settings](#)

7.4.2 Host

In the 'Host' tab you will find the following parameters:

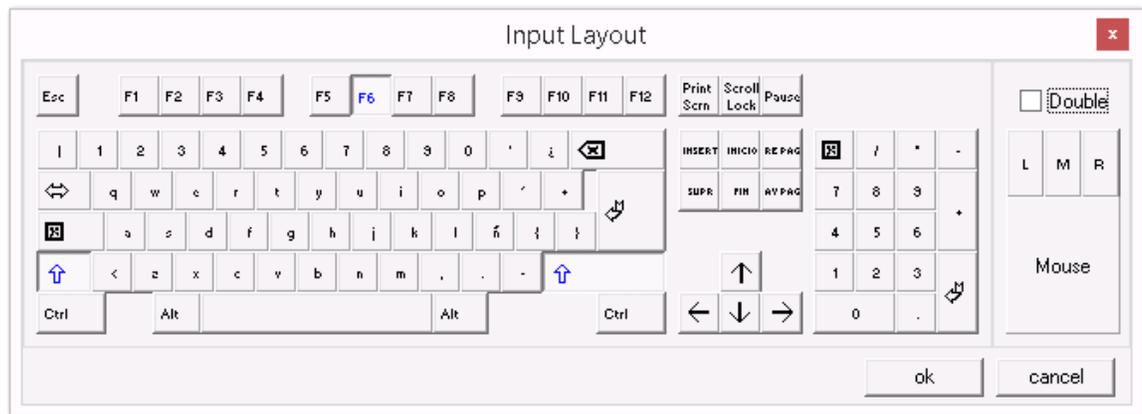


Grid

The grid contains a list of all host functions available for mapping. Those that appear in **red** mean their default mapping has been modified.

Maps

This list contains all keys mapped to the selected function. To map a new key to the selected function, click on the 'New' button to display the on-screen keyboard where you can easily choose a key combination.



Click 'Ok' when done. The selected key/s will be added to the list.

If you want to change previously assigned keys, select the key you want to modify from the list and then click on the 'Edit' button. Use the on-screen keyboard to select a new key and then click 'Ok'.

To delete previously mapped keys, select a key from the list and then click on the 'Delete' Button.

To restore the default mapping for the selected function, click on the 'Default' button.

3270/5250/VT filter

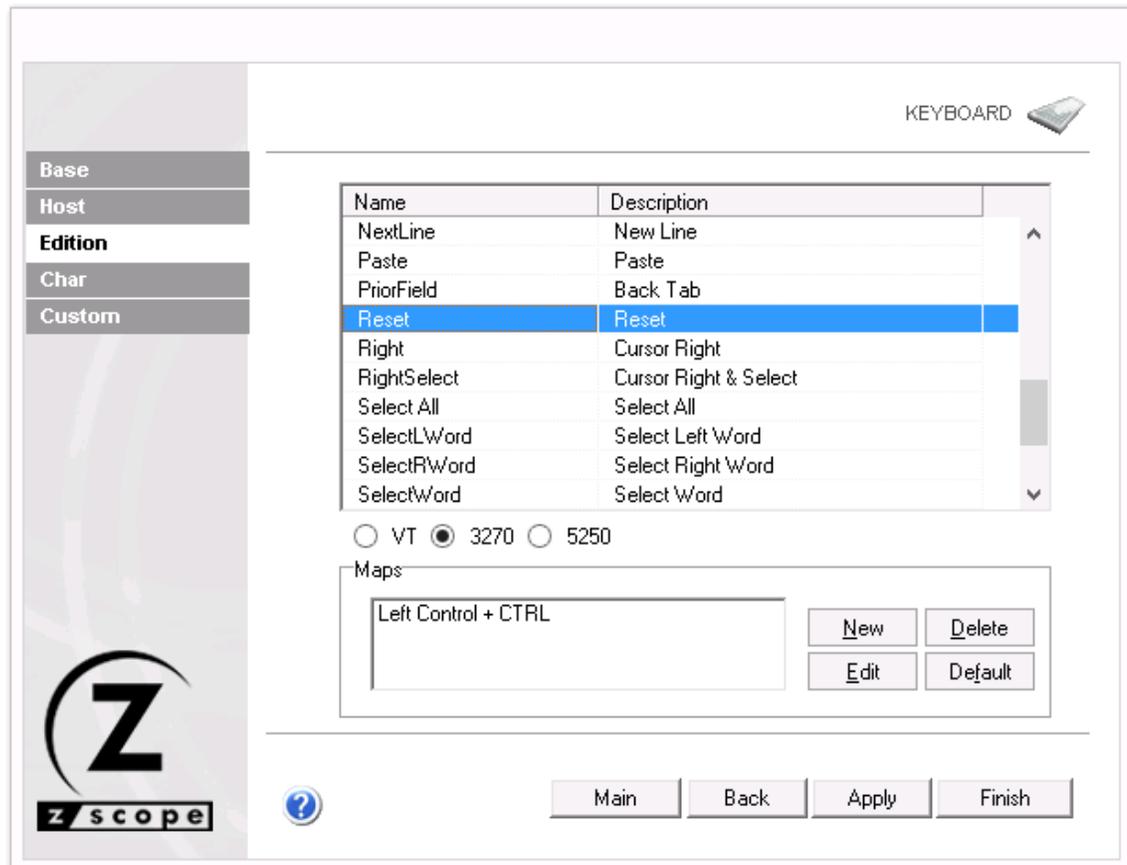
You can specify different maps for each host type.

Read more:

- [Keyboard - Base Settings](#)
- [Keyboard - Edition Settings](#)
- [Keyboard - Char Settings](#)
- [Keyboard - Custom Settings](#)

7.4.3 Edition

In the 'Edition' tab you will find the following parameters:

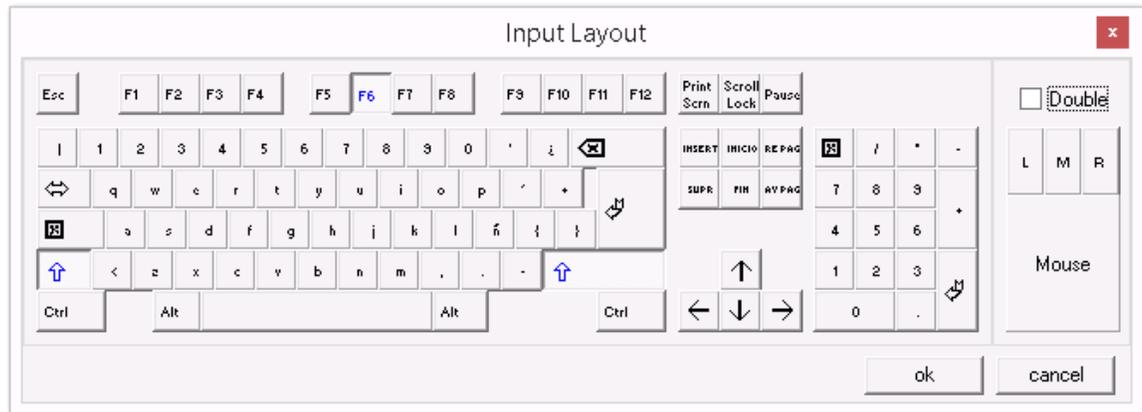


Grid

The grid contains a list of all edition functions available for mapping. Those that appear in red mean their default mapping has been modified.

Maps

This list contains all keys mapped to the selected function. To map a new key to the selected function, click on the 'New' button to display the on-screen keyboard where you can easily choose a key combination.



Click 'Ok' when you're done. The selected key/s will be added to the list.

If you want to change previously assigned keys, select the key you want to modify from the list and then click on the 'Edit' button. Use the on-screen keyboard to select a new key and then click 'Ok'.

To delete previously mapped keys, select a key from the list and then click on the 'Delete' Button.

To restore the default mapping for the selected function, click on the 'Default' button.

3270/5250/VT filter

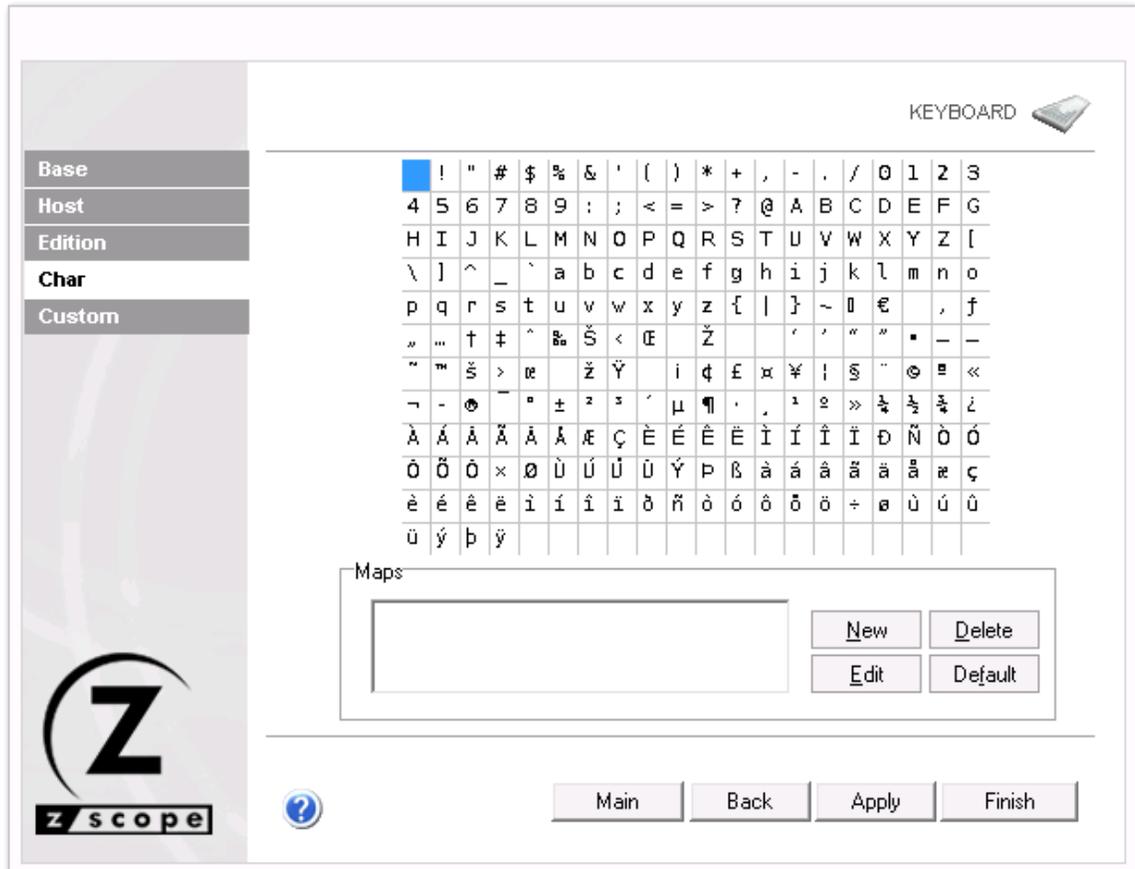
You can specify different maps for each host type.

Read more:

- [Keyboard - Base Settings](#)
- [Keyboard - Host Settings](#)
- [Keyboard - Char Settings](#)
- [Keyboard - Custom Settings](#)
- [Default Keyboard Mapping](#)

7.4.4 Char

In the 'Char' tab you will find the following parameters:

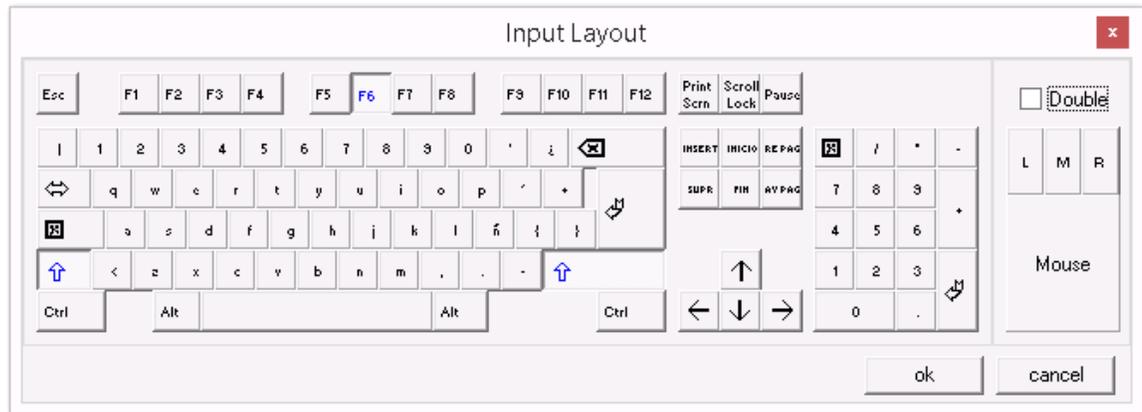


Character Grid

This is the entire character set. Choose the character you want to re-map.

Maps

This list contains all keys mapped to the selected character. To map a new key to the selected character, click on the 'New' button to display the on-screen keyboard where you can easily choose a key combination.



Click 'Ok' when done. The selected key/s will be added to the list.

If you want to change previously mapped keys, select the key you want to modify from the list and then click on the 'Edit' button. Use the on-screen keyboard to select a new key and then click 'Ok'.

To delete previously mapped keys, select a key from the list and then click on the 'Delete' Button.

To restore the default mapping for the selected key, click on the 'Default' button.

Read more:

- [Keyboard - Base Settings](#)
- [Keyboard - Host Settings](#)
- [Keyboard - Edition Settings](#)
- [Keyboard - Custom Settings](#)
- [Character Conversion Tables](#)

7.4.5 Custom

In the 'Custom' tab you will find the following parameters:



Add

Press this button to add a new custom function. It will display the Keyboard Function dialog, which is explained below.

Edit

Select a function from the list and press this button to change any of the options for the function except its name.

Delete

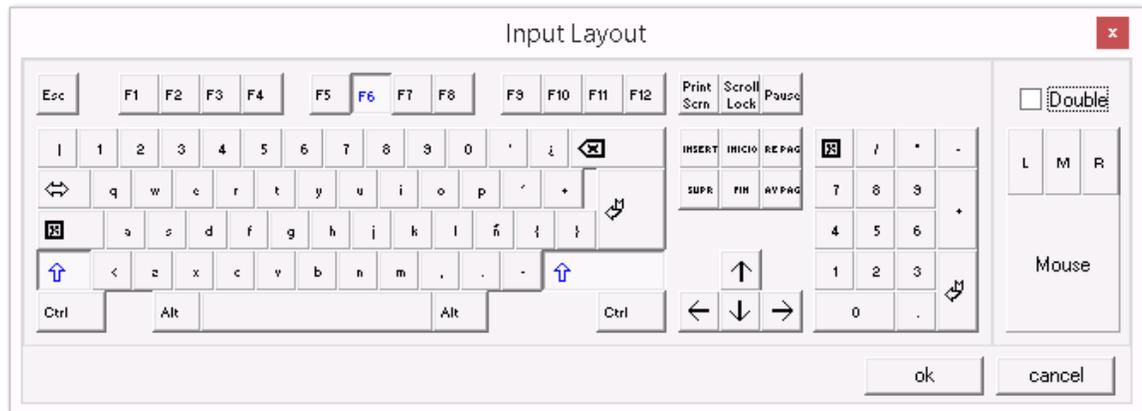
Select a function from the list and press this button to delete it from the custom functions list.

Maps

New

Select a function from the list and press this button to add a map for the selected function. It will display the Input Layout dialog box where you can easily choose a

key combination.



Click 'OK' when done. The selected key/s will be added to the list.

Delete

Select a function from the list and then a map for the selected function and press this button to delete the map.

Edit

Select a function from the list and then a map for the selected function and press this button to change the map for a different one. The Input Layout dialog box will display and the map you select will replace the previous one.

Default

Select a function from the list and then a map for the selected function and press this button to change the map for the default one. In the Custom tab, the default map for all the functions is none, so pressing this button will delete all maps for the selected function.

Keyboard Function Dialog:

This dialog box is invoked by the 'Add' or 'Edit' buttons in the custom tab. If invoked from the 'Add' button, all the fields will appear blank and you can use it to add a new custom function. If invoked from the 'Edit' button, the fields will be completed with the information of the selected function and you can use it to change this information.

You will find the following parameters:

The screenshot shows a dialog box titled "Keyboard Function". It has a close button in the top right corner. The dialog contains the following fields and controls:

- Function Name:** A dropdown menu with a small arrow pointing down.
- Description:** A text input field.
- Execution Parameters:** A section containing three rows of settings:
 - 3270 Keystrokes: A text input field, a "+" button, and a dropdown menu.
 - 5250 Keystrokes: A text input field, a "+" button, and a dropdown menu.
 - VT Keystrokes: A text input field, a "+" button, and a dropdown menu.
- Buttons:** "Ok" and "Cancel" buttons at the bottom.

Function Name

Enter here the function name. You can type a new name, or choose existing functions from the combobox.

Description

Enter a description for the custom function.

Execution parameters

Mark the hosts for which you want this function activated (3270, 5250, VT). Under each of them, type the series of keystrokes you want the system to send for each one. The combobox in the right holds a list of common keyboard functions, that you can add using the '+' button.

Ok

Press this button to Add the new function or confirm changes to the edition of an existing function.

Cancel

Press this button to discard the whole procedure.

Read more:

- [Keyboard - Base Settings](#)
- [Keyboard - Host Settings](#)
- [Keyboard - Edition Settings](#)
- [Keyboard - Char Settings](#)
- [Keyboard - Custom Settings](#)

7.4.6 Keyboards

This section shows the keyboards available as templates in z/Scope Anywhere.

[z/Scope Keyboard Map](#)

[IBM Keyboard Map](#)

[EXTRA Keyboard Map](#)

[IRMA Keyboard Map](#)

[RUMBA Keyboard Map](#)

7.4.6.1 z/Scope Keyboard Map

3270 Keyboard

Aids	Mapped keys
PF01 .. PF12	F1 .. F12
PF13 .. PF24	Shift + F1 .. Shift + F12
PA01 .. PA10	Left Control + F1 .. Left Control + F10
Attention	Left Control + Shift + A
Clear	Pause Shift + Pause Left Ctrl + Shift + Z
Enter	Enter Shift + Enter
Erase Input	Left Alt + End
Reset	Left Control Left Control + R
System Request	Left Alt + PrintScreen Left Alt + Multiply
Test Request	Left Alt + Pause



If your keyboard does not distinguish keys then left keys are equivalent to right keys.

5250 Keyboard

Aids	Mapped keys
PF01 .. PF12	F1 .. F12
PF13 .. PF24	Shift + F1 .. Shift + F12
PA01 .. PA03	Left Control + F1 .. Left Control + F3
Attention	Escape
Clear	Pause Shift + Pause
Enter	Enter
Erase EOF	End
Erase EOL	Left Alt + Home
Erase Input	Left Alt + End
Field - (minus)	Minus Left Shift + Minus
Field + (plus)	Plus Shift + Plus
Help	Scroll Lock Shift + Scroll Lock
New Line	Shift + Enter
Reset	Left Control
System Request	Left Alt + Print Screen Left Alt + Multiply
Test Request	Left Alt + Pause



If your keyboard does not distinguish keys then left keys are equivalent to right keys.

Read more:

- [IBM Keyboard Map](#)
- [EXTRA Keyboard Map](#)
- [IRMA Keyboard Map](#)
- [RUMBA Keyboard Map](#)

7.4.6.2 IBM Keyboard Map

IBM 3270 Keyboard Map

Function Key	Mapped keys
Attn	Esc
Back Space	Backspace
Back Tab	Left Shift + Tab Right Shift + Tab
Clear	Pause
Cursor Down	Down Num 2
Cursor Down & Select	Left Shift + Down Left Shift + Num 2 Right Shift + Down Right Shift + Num 2
Cursor Left	Left Num 4
Cursor Left & Select	Left Shift + Left Left Shift + Num 4 Right Shift + Left Right Shift + Num 4
Cursor Right	Right Num 6
Cursor Right & Select	Left Shift + Right Left Shift + Num 6 Right Shift + Right Right Shift + Num 6
Cursor Ruler	Left Control + Home Right Control + Home
Cursor Up	Up Num 8
Cursor Up & Select	Left Shift + Up Left Shift + Num 8 Right Shift + Up Right Shift + Num 8
Delete	Delete Num Del
Dup	Left Shift + Insert Right Shift + Insert
End	End Num 1
Enter	Num Enter Right Control + Right Ctrl
Erase Eof	Left Control + End Right Control + End
Erase Input	Left Alt + End Right Alt + End
Field Mark	Left Shift + Home Right Shift + Home
Home	Home

	Num 7
Insert	Num 0 Insert
New Line	Enter
PA1	Left Alt + Insert Right Alt + Insert
PA2	Left Alt + Home Right Alt + Home
PA3	Left Shift + Page Up Right Shift + Page Up
PF01	F1
PF02	F2
PF03	F3



If your keyboard does not distinguish keys then left keys are equivalent to right keys.

IBM 5250 Keyboard Map

Function Key	Mapped keys
Attn	Esc
Back Space	Backspace
Back Tab	Right Shift + Tab Left Shift + Tab
Cursor Down	Down Num 2
Cursor Down & Select	Left Shift + Down Left Shift + Num 2 Right Shift + Down Right Shift + Num 2
Cursor Left	Left Num 4
Cursor Left & Select	Left Shift + Left Left Shift + Num 4 Right Shift + Left Right Shift + Num 4
Cursor Right	Right Num 6
Cursor Right & Select	Left Shift + Right Left Shift + Num 6 Right Shift + Right Right Shift + Num 6
Cursor Ruler	Left Control + Home Right Control + Home
Cursor Up	Up Num 8
Cursor Up & Select	Left Shift + Up Left Shift + Num 8 Right Shift + Up Right Shift + Num 8

Delete	Delete Num Del
Dup	Left Shift + Insert Right Shift + Insert
End	End
Enter	Right Control + Right Ctrl
Erase Eof	Right Control + End Left Control + End
Erase Input	Left Alt + End Right Alt + End
Field -	Num - Left Shift + Num - Right Shift + Num - Left Alt + Num - Right Alt + Num -
Field +	Num Enter Left Shift + Num Enter Right Shift + Num Enter Num + Right Shift + Num + Left Shift + Num +
Field Mark	Left Shift + Home Right Shift + Home
Help	Left Alt + F1 Right Alt + F1
Home	Home Num 7
Home	Home Num 7
Insert	Insert Num 0
New Line	Enter
PA1	Left Alt + Insert Right Alt + Insert
PA2	Left Alt + Home Right Alt + Home
PA3	Left Shift + Page Up Right Shift + Page Up



If your keyboard does not distinguish keys then left keys are equivalent to right keys.

Read more:

- [z/Scope Keyboard Map](#)
- [EXTRA Keyboard Map](#)
- [IRMA Keyboard Map](#)
- [RUMBA Keyboard Map](#)

7.4.6.3 EXTRA Keyboard Map

EXTRA 3270 Keyboard Map

Function Key	Mapped keys
Attn	Left Shift + Esc Right Shift + Esc
Back Space	Backspace
Back Tab	Left Shift + Tab Right Shift + Tab
Clear	Pause
Cursor Down	Down Num 2
Cursor Down & Select	Left Shift + Down Left Shift + Num 2 Right Shift + Down Right Shift + Num 2
Cursor Left	Left Num 4
Cursor Left & Select	Left Shift + Left Left Shift + Num 4 Right Shift + Left Right Shift + Num 4
Cursor Right	Right Num 6
Cursor Right & Select	Left Shift + Right Left Shift + Num 6 Right Shift + Right Right Shift + Num 6
Cursor Ruler	Left Control + Num 7 Right Control + Num 7
Cursor Up	Up Num 8
Cursor Up & Select	Left Shift + Up Left Shift + Num 8 Right Shift + Up Right Shift + Num 8
Delete	Delete Num Del
Dup	Left Shift + Insert Right Shift + Insert
End	End
Enter	Num Enter Enter
Erase Eof	Num 1 End
Erase Input	Left Alt + End Right Alt + End
Field Mark	Left Shift + Home Right Shift + Home
Home	Home

	Num 7
Insert	Insert Num 0
New Line	Right Control + Right Ctrl
PA1	Num 9 Page Up
PA2	Num 3 Page Down
PA3	Left Shift + Page Down Right Shift + Page Down
PF01	F1
PF02	F2
PF03	F3



If your keyboard does not distinguish keys then left keys are equivalent to right keys.

EXTRA 5250 Keyboard Map

Function Key	Mapped keys
Attn	Left Shift + Esc Right Shift + Esc
Back Space	Backspace
Back Tab	Right Shift + Tab Left Shift + Tab
Cursor Down	Down Num 2
Cursor Down & Select	Left Shift + Down Left Shift + Num 2 Right Shift + Down Right Shift + Num 2
Cursor Left	Left Num 4
Cursor Left & Select	Left Shift + Left Left Shift + Num 4 Right Shift + Left Right Shift + Num 4
Cursor Right	Right Num 6
Cursor Right & Select	Left Shift + Right Left Shift + Num 6 Right Shift + Right Right Shift + Num 6
Cursor Ruler	Left Control + Num 7 Right Control + Num 7
Cursor Up	Up Num 8
Cursor Up & Select	Left Shift + Up Left Shift + Num 8 Right Shift + Up

	Right Shift + Num 8
Delete	Delete Num Del
Dup	Left Shift + Insert Right Shift + Insert
End	End
Enter	Enter Num Enter
Erase Eof	Num 1 End
Erase Input	Left Alt + End Right Alt + End
Field -	Num -
Field +	Num + Left Shift + Num + Right Shift + Num +
Field Mark	Left Shift + Home Right Shift + Home
Help	Left Alt + Pause Right Alt + Pause
Home	Num 7 Home
Home	Home Num 7
Insert	Insert Num 0
New Line	Right Control + Right Ctrl
PA1	Left Alt + Insert Right Alt + Insert
PA2	Left Alt + Home Right Alt + Home
PA3	Left Shift + Page Down Right Shift + Page Down Left Alt + Page Up Right Alt + Page Up



If your keyboard does not distinguish keys then left keys are equivalent to right keys.

Read more:

- [z/Scope Keyboard Map](#)
- [IBM Keyboard Map](#)
- [IRMA Keyboard Map](#)
- [RUMBA Keyboard Map](#)

7.4.6.4 IRMA Keyboard Map

IRMA 3270 Keyboard Map

Function Key	Mapped Keys
Attn	F1
Back Space	Backspace
Back Tab	Left Shift + Tab Right Shift + Tab
Clear	F2
Cursor Down	Down Num 2
Cursor Down & Select	Left Shift + Down Left Shift + Num 2 Right Shift + Down Right Shift + Num 2
Cursor Left	Left Num 4
Cursor Left & Select	Left Shift + Left Left Shift + Num 4 Right Shift + Left Right Shift + Num 4
Cursor Right	Right Num 6
Cursor Right & Select	Left Shift + Right Left Shift + Num 6 Right Shift + Right Right Shift + Num 6
Cursor Ruler	Left Control + Home Right Control + Home
Cursor Up	Up Num 8
Cursor Up & Select	Left Shift + Up Left Shift + Num 8 Right Shift + Up Right Shift + Num 8
Delete	Delete Num Del
Dup	Left Control + G Right Control + G
End	End Num 1
Enter	Enter Num Enter
Erase Eof	F6
Erase Input	F4
Field Mark	Left Control + H Right Control + H
Home	Home Num 7

Insert	Num 0 Insert
New Line	Left Control + Enter Right Control + Enter
PA1	Left Control + J Right Control + J
PA2	Left Control + K Right Control + K
PA3	Left Control + L Right Control + L
PF01	Left Alt + 1 Right Alt + 1
PF02	Left Alt + 2 Right Alt + 2
PF03	Left Alt + 3 Right Alt + 3

 If your keyboard does not distinguish keys then left keys are equivalent to right keys.

IRMA 5250 Keyboard Map

Function Key	Mapped keys
Attn	Esc
Back Space	Backspace
Back Tab	Right Shift + Tab Left Shift + Tab
Cursor Down	Down Num 2
Cursor Down & Select	Left Shift + Down Left Shift + Num 2 Right Shift + Down Right Shift + Num 2
Cursor Left	Left Num 4
Cursor Left & Select	Left Shift + Left Left Shift + Num 4 Right Shift + Left Right Shift + Num 4
Cursor Right	Right Num 6
Cursor Right & Select	Left Shift + Right Left Shift + Num 6 Right Shift + Right Right Shift + Num 6
Cursor Ruler	Left Control + Home Right Control + Home
Cursor Up	Up Num 8
Cursor Up & Select	Left Shift + Up

	Left Shift + Num 8 Right Shift + Up Right Shift + Num 8
Delete	Delete Num Del
Dup	Left Shift + Right Control + Insert Right Shift + Insert
End	End
Enter	Enter
Erase Eof	Left Control + End
Erase Input	Left Alt + End
Field -	Num - Left Shift + Num - Right Shift + Num - Left Alt + Num - Right Alt + Num -
Field +	Num Enter Left Shift + Num Enter Right Shift + Num Enter Num + Left Control + Num + Left Alt + Num + Right Control + Num + Right Alt + Num +
Field Mark	Left Shift + Home Right Shift + Home
Help	Left Alt + F1 Right Alt + F1
Home	Num 7 Home
Home	Home Num 7
Insert	Insert Num 0
New Line	Enter
PA1	Left Alt + Insert
PA2	Right Control + Left Alt + Home
PA3	Right Alt + Page Up Right Control + L



If your keyboard does not distinguish keys then left keys are equivalent to right keys.

Read more:

- [z/Scope Keyboard Map](#)
- [IBM Keyboard Map](#)
- [EXTRA Keyboard Map](#)
- [RUMBA Keyboard Map](#)

7.4.6.5 RUMBA Keyboard Map

RUMBA 3270 Keyboard Map

Function Key	Mapped keys
Attn	Left Shift + Left Control + A Right Shift + Left Control + A Left Shift + Right Control + A Right Shift + Right Control + A
Back Space	Left Shift + Backspace Right Shift + Backspace Backspace
Back Tab	Left Shift + Tab Right Shift + Tab
Clear	Left Shift + Left Control + Z Right Shift + Left Control + Z Right Shift + Right Control + Z Left Shift + Right Control + Z
Cursor Down	Down Num 2
Cursor Down & Select	Left Shift + Down Left Shift + Num 2 Right Shift + Down Right Shift + Num 2
Cursor Left	Left Num 4
Cursor Left & Select	Left Shift + Left Left Shift + Num 4 Right Shift + Left Right Shift + Num 4
Cursor Right	Right Num 6
Cursor Right & Select	Left Shift + Right Left Shift + Num 6 Right Shift + Right Right Shift + Num 6
Cursor Ruler	Left Control + Home
Cursor Up	Up Num 8
Cursor Up & Select	Left Shift + Up Left Shift + Num 8 Right Shift + Up Right Shift + Num 8
Delete	Delete Num Del
Dup	Left Control + D Right Control + D
End	End
Enter	Enter Num Enter
Erase Eof	End

Erase Input	Left Control + T Right Control + T
Field Mark	Left Shift + Home Right Shift + Home
Home	Home Num 7
Insert	Insert Num 0
New Line	Left Control + Enter
PA1	Left Control + F1 Right Control + F1
PA2	Left Control + F2 Right Control + F2
PA3	Left Control + F3 Right Control + F3
PF01	F1
PF02	F2
PF03	F3

 If your keyboard does not distinguish keys then left keys are equivalent to right keys.

RUMBA 5250 Keyboard Map

Function Key	Mapped keys
Attn	Esc
Back Space	Backspace Left Shift + Backspace Right Shift + Backspace
Back Tab	Right Shift + Tab Left Shift + Tab
Cursor Down	Down Num 2
Cursor Down & Select	Left Shift + Down Left Shift + Num 2 Right Shift + Down Right Shift + Num 2
Cursor Left	Left Num 4
Cursor Left & Select	Left Shift + Left Left Shift + Num 4 Right Shift + Left Right Shift + Num 4
Cursor Right	Right Num 6
Cursor Right & Select	Left Shift + Right Left Shift + Num 6 Right Shift + Right Right Shift + Num 6

Cursor Ruler	Left Alt + Page Down Right Alt + Page Down
Cursor Up	Up Num 8
Cursor Up & Select	Left Shift + Up Left Shift + Num 8 Right Shift + Up Right Shift + Num 8
Delete	Delete Num Del
Dup	Left Shift + Insert Right Shift + Insert
End	End
Enter	Enter
Erase Eof	Left Control + End Right Control + End
Erase Input	Left Alt + End Right Alt + End
Field -	Num - Left Shift + Num - Right Shift + Num -
Field +	Right Control + Right Ctrl Num +
Field Mark	Left Shift + Home Right Shift + Home
Help	Scroll Lock
Home	Home Num 7
Insert	Insert Num 0
New Line	Left Shift + Enter Right Shift + Enter
PA1	Left Control + F1 Right Control + F1
PA2	Left Control + F2 Right Control + F2
PA3	Left Control + F3 Right Control + F3



If your keyboard does not distinguish keys then left keys are equivalent to right keys.

Read more:

- [z/Scope Keyboard Map](#)
- [IBM Keyboard Map](#)
- [EXTRA Keyboard Map](#)
- [IRMA Keyboard Map](#)

7.5 Macros

Macros are [created by recording a behaviour during a session with the host](#). At this point, they are only available for the user that created it, or for anonymous users if the user wasn't logged in at the moment. To make macros available for all the users connecting to a certain host, they have to be copied to a different folder.

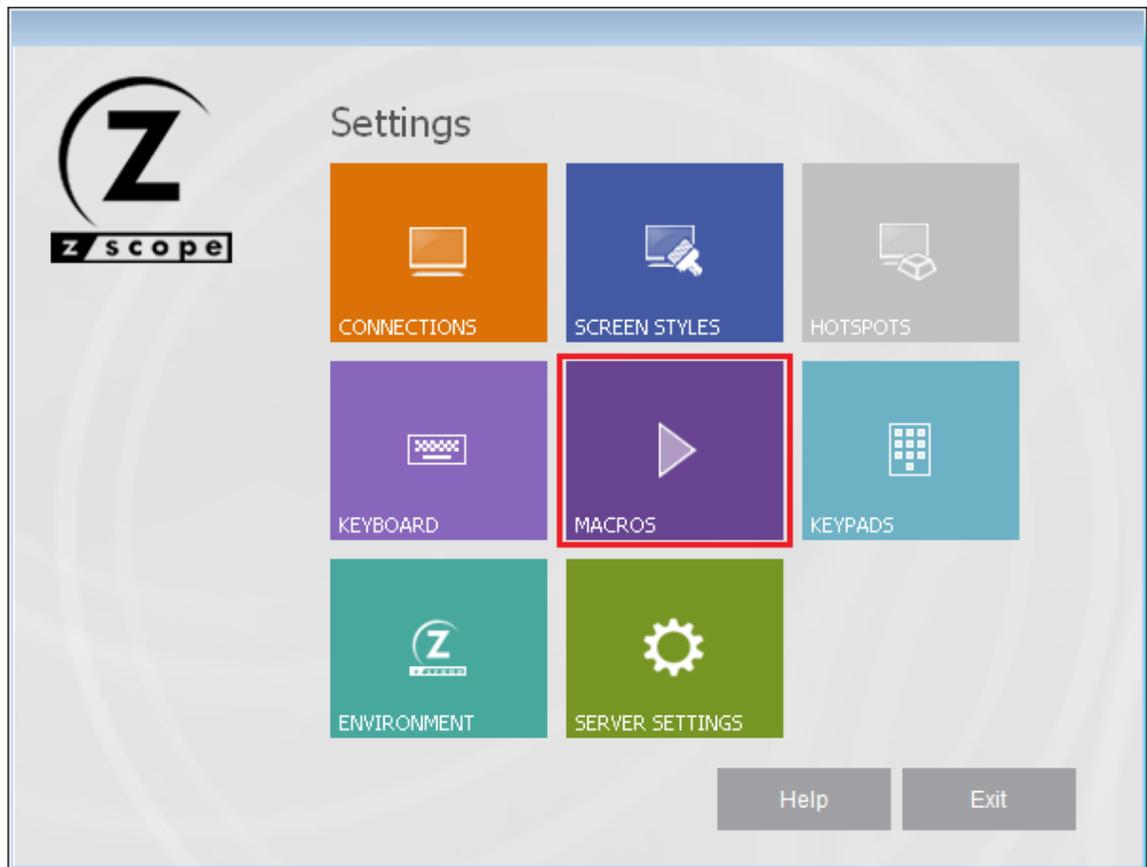
The macros will be stored in C:\ProgramData\Cybele Software\zScope7\[UserName]

1. Inside this directory there will be subdirectories for each existing connection. Their name stands for the connection ID and will have a format that looks like this:
"EB088A84-C46D-4882-90B3-15BD0A6A26D0C"
2. Open these connections folders and look for a file that has the same name as the macro you are looking for
3. If the macro's name were "Navigation" for example, the file name would be "Navigation.js".

To make these macros available for any user that connects to this host, copy the connection folder with the macros inside, to the 'zScope7' folder in Windows Program Data:

C:\ProgramData\Cybele Software\zScope7\3FD21D8F-B934-4471-ADCE-4723AB48B698

Afterwards, those macros can be managed on the 'Configuration Manager' through the 'Macros' icon.



For more information about how to manage Macros, consult the following sections:

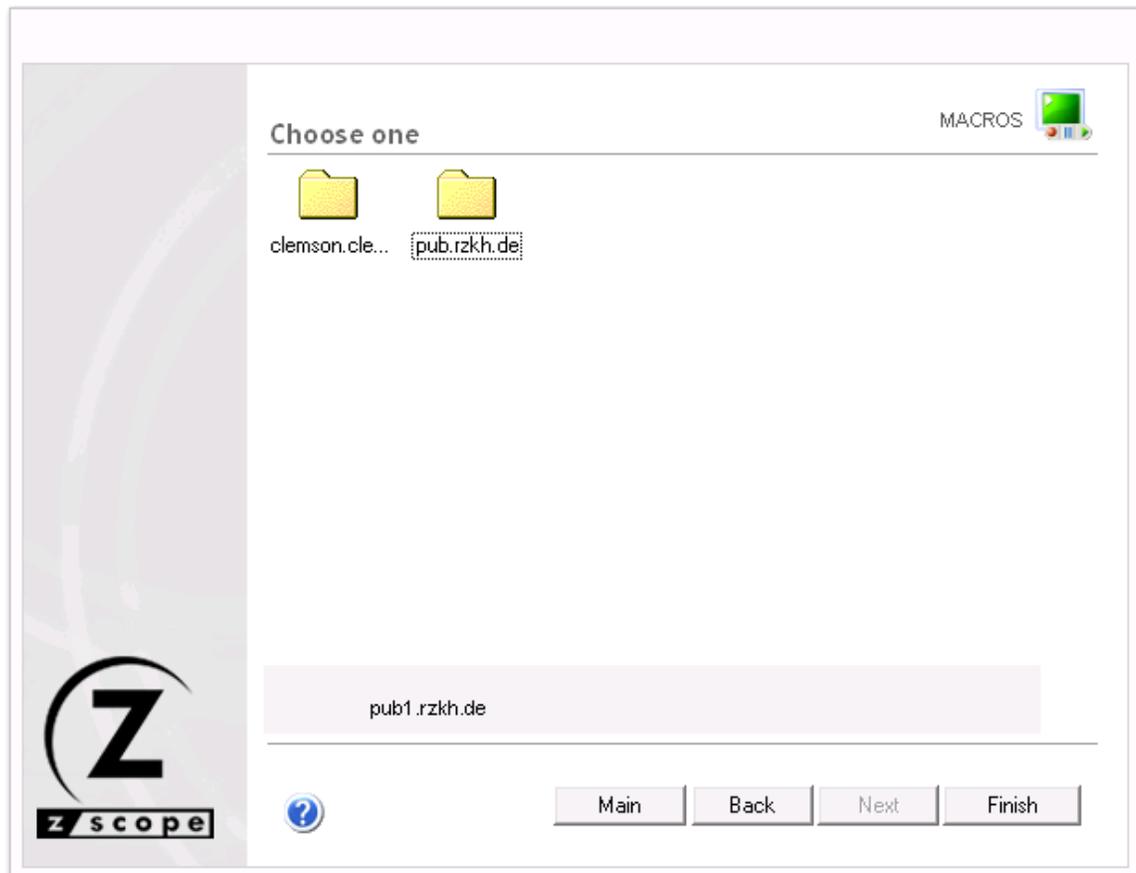
- [Editing Macros](#)
- [Deleting Macros](#)
- [Programming Reference for Macros](#)

If you want to learn the simple steps to creating a macro from scratch and run it, please read this topic:

- [Using Macros](#)

7.5.1 Editing Macros

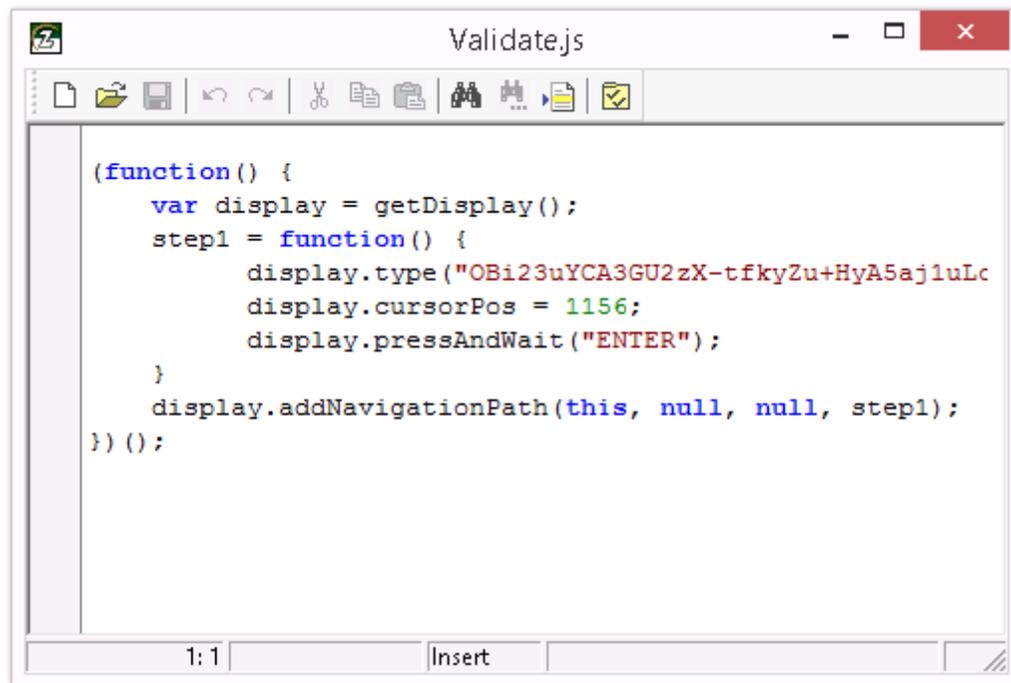
In the 'Macros Management' dialog, you will find a list of the existing connections.



Select a connection and then click on 'Next' to see all Macros defined for that particular connection.



If you want to modify a previously created Macro, select it and then click on 'Next'. You will see the 'Active Script' window which you can use to modify the Macro's code.



```
(function() {  
  var display = getDisplay();  
  step1 = function() {  
    display.type("OBi23uYCA3GU2zX-tfkyZu+HyA5aj1uLc");  
    display.cursorPos = 1156;  
    display.pressAndWait("ENTER");  
  }  
  display.addNavigationPath(this, null, null, step1);  
}) ();
```

-  **New Macro**
Use this button to code a new macro from scratch.
-  **Open Macro**
Use this button to open an existing macro file (.zsm).
-  **Save Macro**
Use this button to save the changes you have made to the macro code. If you are creating a new macro, you will be prompted for a name for the macro file to be saved.
-  **Undo Changes**
Use this button to rollback the last changes you have made to the macro code.
-  **Redo Changes**
Use this button to recover changes previously discarded with the 'Undo' button.
-  **Cut**
Use this button to cut the selected text-area.
-  **Copy**
Use this button to copy the selected text-area into the clipboard buffer.
-  **Paste**
Use this button to paste text from the clipboard into the screen at the cursor position.

**Find Text**

Use this button to open the 'Find Text' window to search for a particular text string in your code.

**Find Next**

Use this button after the first matching string of your search has been found to find subsequent matching strings in your code.

**Go To Line Number**

Use this button to go to a specific line number in your code.

**Properties**

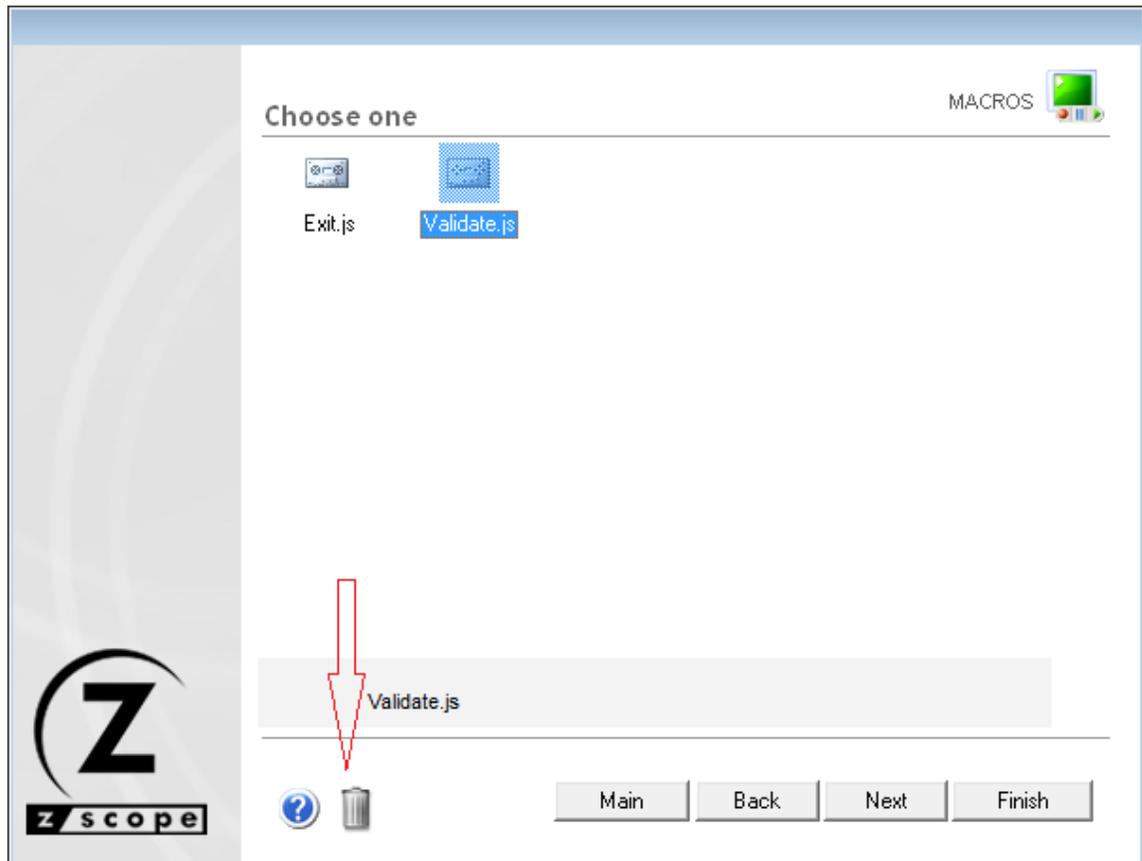
This button opens the 'Properties' window where you can customize several aspects of the Macro Editor.

Read more:

- [Using Macros](#)
- [Deleting Macros](#)

7.5.2 Deleting Macros

To delete a Macro, first select it and then click on the trash can icon. You can also drag and drop the Macro you want to delete on the trash can icon.



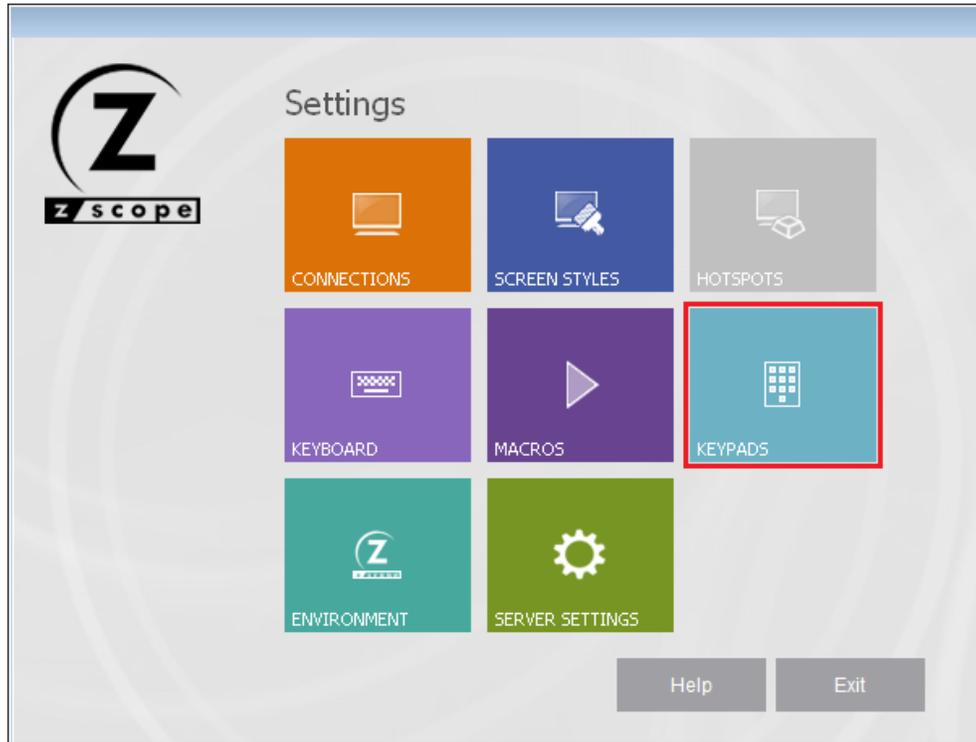
 Macros deletion is not undoable, which means that once you delete a particular Macro, it will be permanently lost.

Read more:

- [Editing Macros](#)
- [Using Macros](#)

7.6 Keypads

Keypads are managed on the 'Configuration Manager' through the 'Keypad' icon.



For more information on managing Keypads, read the following sections:

- [Creating/Editing a Keypad](#)
- [Deleting a Keypad](#)

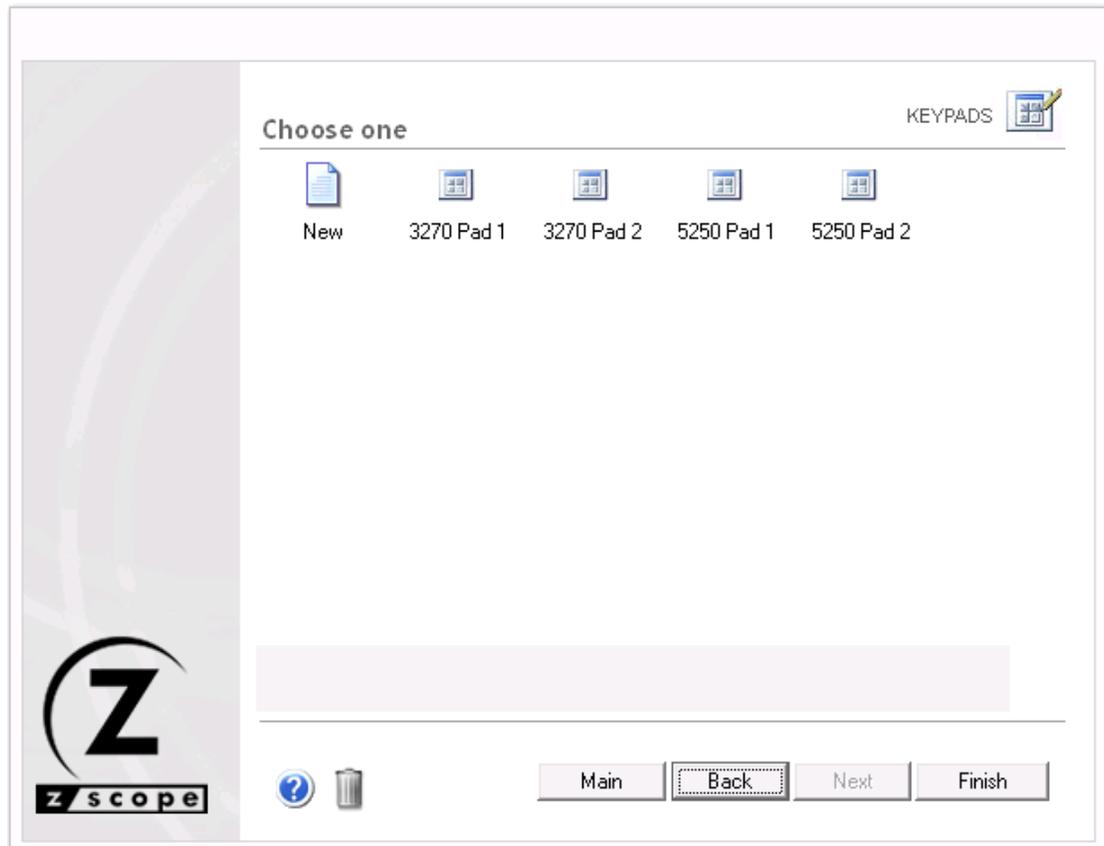


In order to be able to use your Keypad within a Connection, you must first enable the Keypad for that particular connection in the [Connections Settings](#) dialog.

7.6.1 Creating/Editing a Keypad

In the Keypads management dialog you will find a list of the existing Keypads. You will also find the 'New' icon which you can use to create a new Keypad from scratch.

If you want to modify the attributes of a previously created Keypad, select it using the mouse and then click on 'Next', or just simply double-click on it.



 In order to be able to use your Keypad within a Connection, you must first enable the Keypad for that particular connection in the [Connections Settings](#) dialog.

Adding a keypad

Select the 'New' icon and after you click on 'Next', you will be presented with the 'Keypad Creation' dialog.



To add a new key to the Keypad, follow these steps:

1. Select a function to assign to the new key from the drop-down list.
2. Type a caption for the new key.
3. Click on the 'Add' button.

The new key you defined will now appear in the Keypad's key list. To modify the key's position within the Keypad, select it from the list and move it to the desired position using the key order selectors.

Modifying a keypad

To modify an already defined key, do the following:

1. Select the key you want to modify from the Keypad's key list.
2. Change the function and/or caption of the key.
3. Click on the 'Modify' button to apply the changes to the key.

Deleting a keypad

To delete a key from the Keypad, proceed this way:

1. Select the key you want to delete from the Keypad's key list.
2. Click on the 'Delete' button.

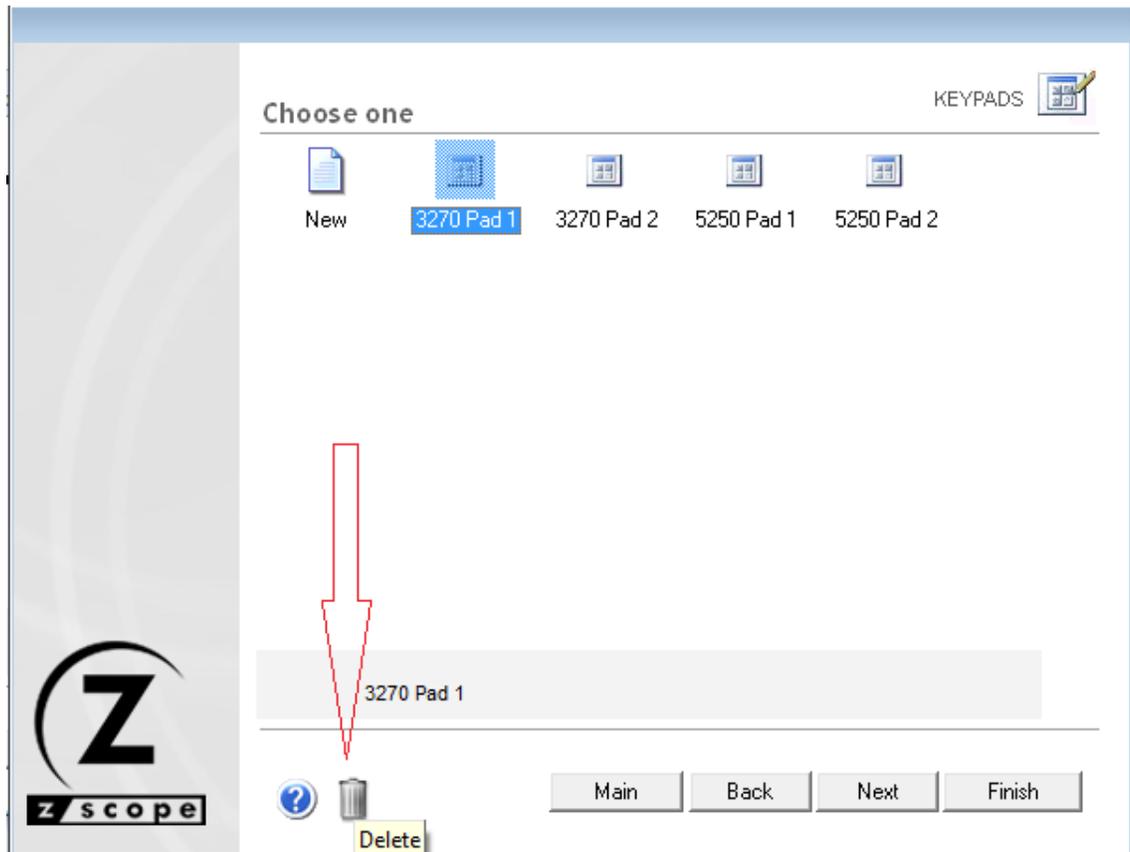
The key you selected will be removed from the Keypad's key list.

Read more

- [Deleting a Keypad](#)

7.6.2 Deleting a Keypad

To delete a Keypad, first select it and then click on the trash can icon. You can also drag and drop the Keypad you want to delete on the trash can icon.

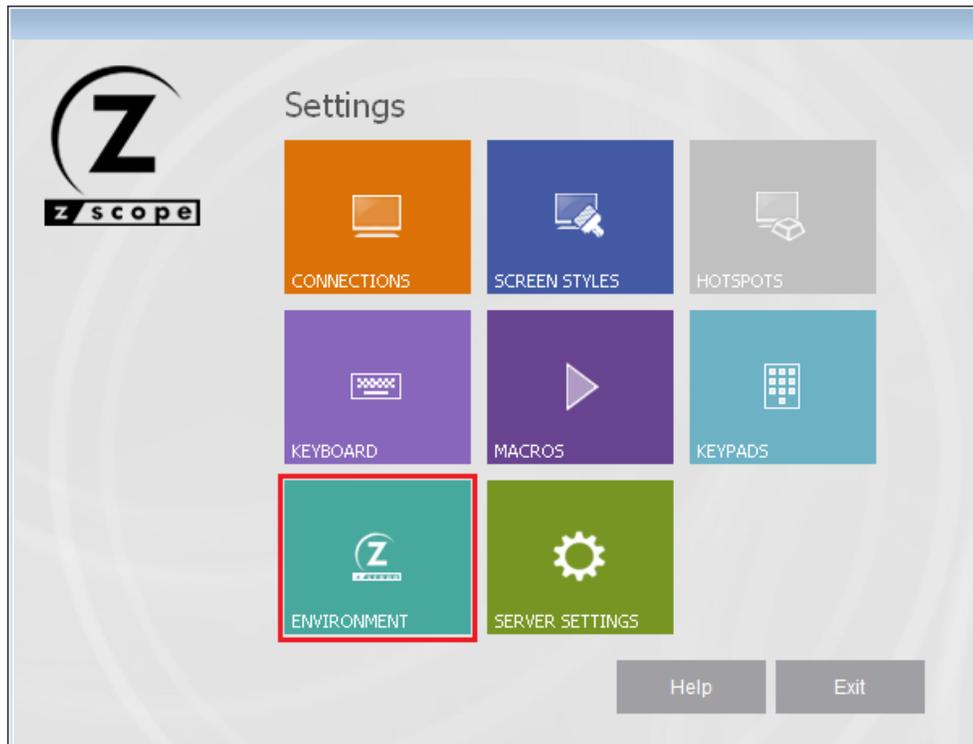


 Keypad deletion is not undoable, which means that once you delete a particular Keypad, it will be permanently lost.

- Read more
- [Creating/Editing a Keypad](#)

7.7 Environment

The Environment is managed on the 'Configuration Manager' through the 'Environment' icon.

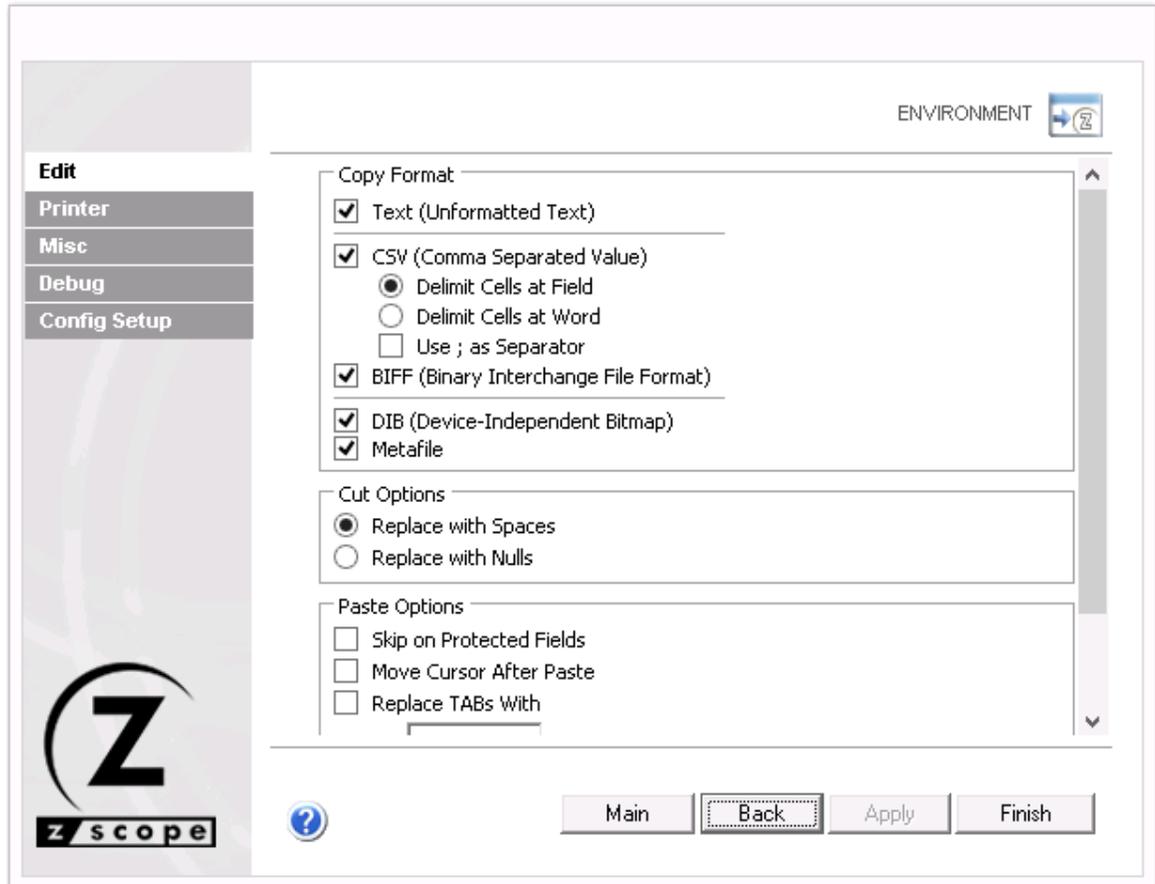


For more information about the Environment settings available, consult the following sections:

- [Edit](#)
- [Printer](#)
- [Misc](#)
- [Debug](#)
- [Config Setup](#)

7.7.1 Edit

In the 'Edit' tab you will find the following parameters:



Copy Format

Text (unformatted text)

Check this option if you want to copy text into the clipboard unformatted.

CSV (comma separated value)

Check this option if you want to copy text into the clipboard as comma-separated values. You can also specify if cells are to be delimited as fields or at words. Instead of a comma (,), you can use the semi-colon.

BIFF (binary interchange file format)

Check this option if you want to copy text into the clipboard in BIFF format.

DIB (device-independent bitmap)

Check this option if you want to copy text into the clipboard in DIB format.

Metafile

Check this option if you want to copy text into the clipboard in Metafile format.

Cut Options

Here you can choose whether spaces or nulls will be placed when you perform a cut operation.

Paste Options

Skip on protected fields

Check this option if you want paste operation to skip on protected fields.

Move cursor after paste

Check this option if you want the cursor to move automatically to the end of the pasted end after pasting.

Replace TABs with

Check this option if you want to replace TAB chars with text when pasting. Specify the text in the field below.

Word Wrap Options

Enable Word Wrap in Multiline Fields

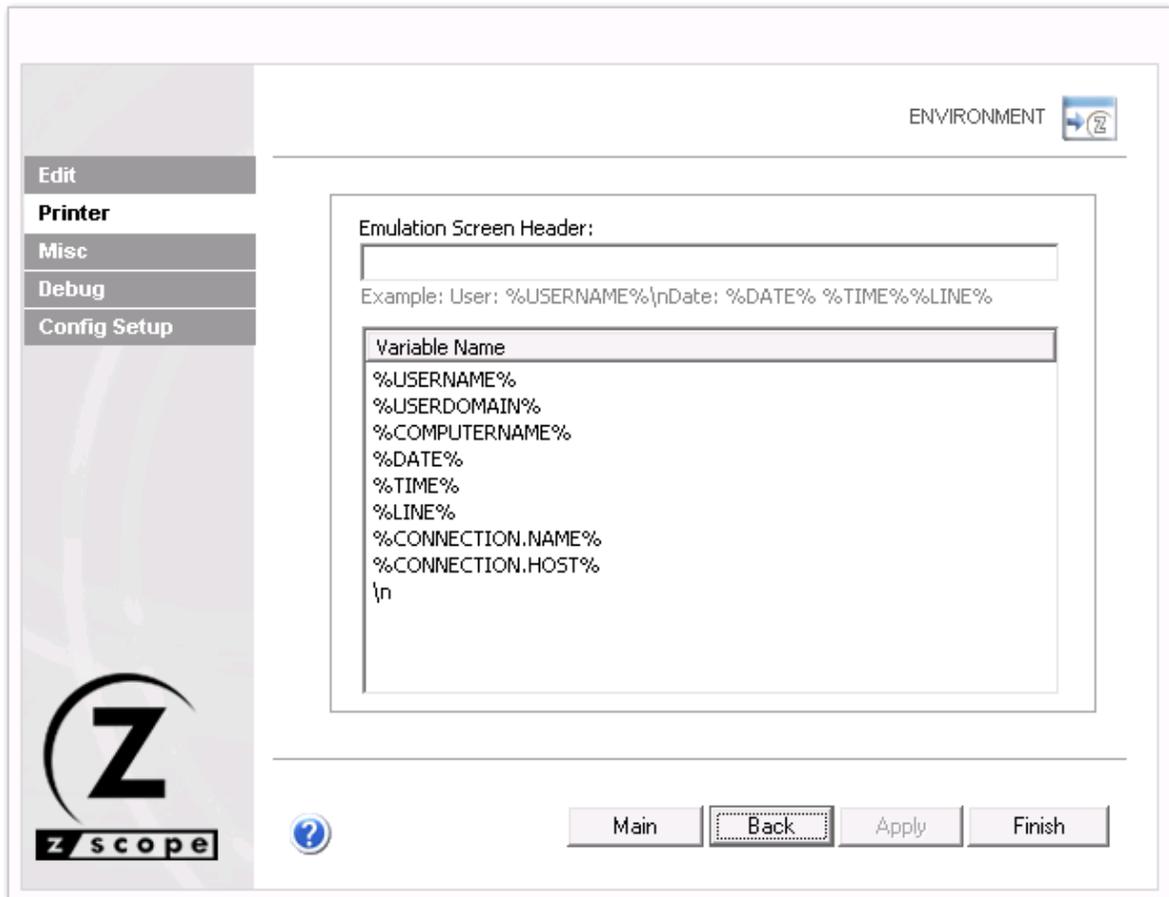
Check this option to have the text wrap in the available space when there is a multiline field.

Read more:

- [Environment - Printer Settings](#)
- [Environment - Misc Settings](#)
- [Environment - Debug Settings](#)
- [Environment - Config Setup Settings](#)

7.7.2 Printer

In the 'Printer' tab you will find the following parameters:



Emulation Screen Header

Type a sentence that will show as a header of all the host's print screens. Use the variables listed below: "Print screen taken by %USERNAME% in %COMPUTERNAME% at %TIME%"

Variable Name

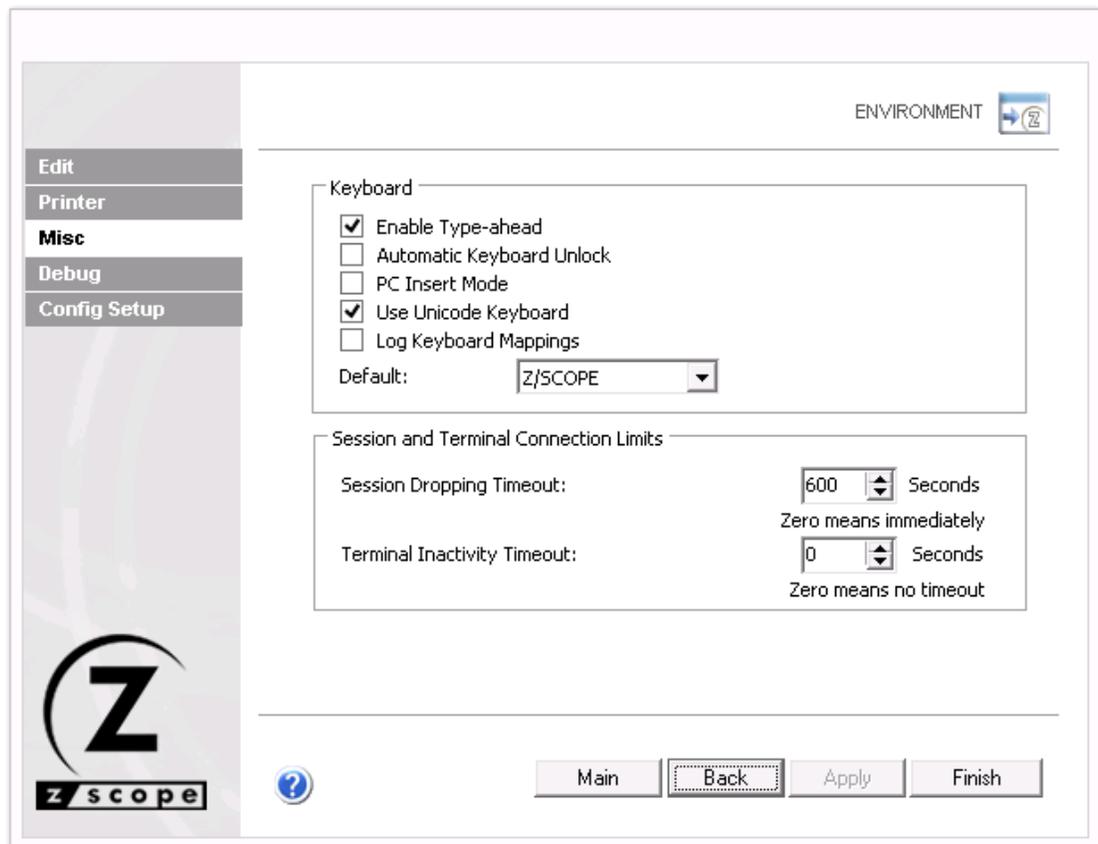
A list of variables that you can use in the emulation screen header.

Read more:

- [Environment - Edit Settings](#)
- [Environment - Misc Settings](#)
- [Environment - Debug Settings](#)
- [Environment - Config Setup Settings](#)
- [Print Screen Button in Connection Toolbar Options](#)

7.7.3 Misc

In the 'Misc' tab you will find the following parameters:



Keyboard

Enable Type-Ahead

Check this option if you want keystrokes to be sent to a buffer when the screen is still loading so the characters typed during that interval are sent when the screen is once again ready for input.

Automatic Keyboard Unlock

Check this option if you want the keyboard to be automatically unlocked after typing in a protected area of the screen.

PC Insert Mode

Check this option if you want to work in the Insert mode instead of the Overwrite mode when typing.

Use Unicode Keyboard

Check this option to use a unicode keyboard. Note: This may affect your keyboard mapping.

Log Keyboard Mappings

Check this option to log the keyboard mappings.

Default

Select one of the existing keyboards to be the default one.

Session and Terminal Connection Limits

Session Dropping Timeout

Choose how many seconds will pass before z/Scope Anywhere drops a session after the browser is closed. Zero seconds in this field means a session will be dropped immediately when it's not used.

Terminal Inactivity Timeout

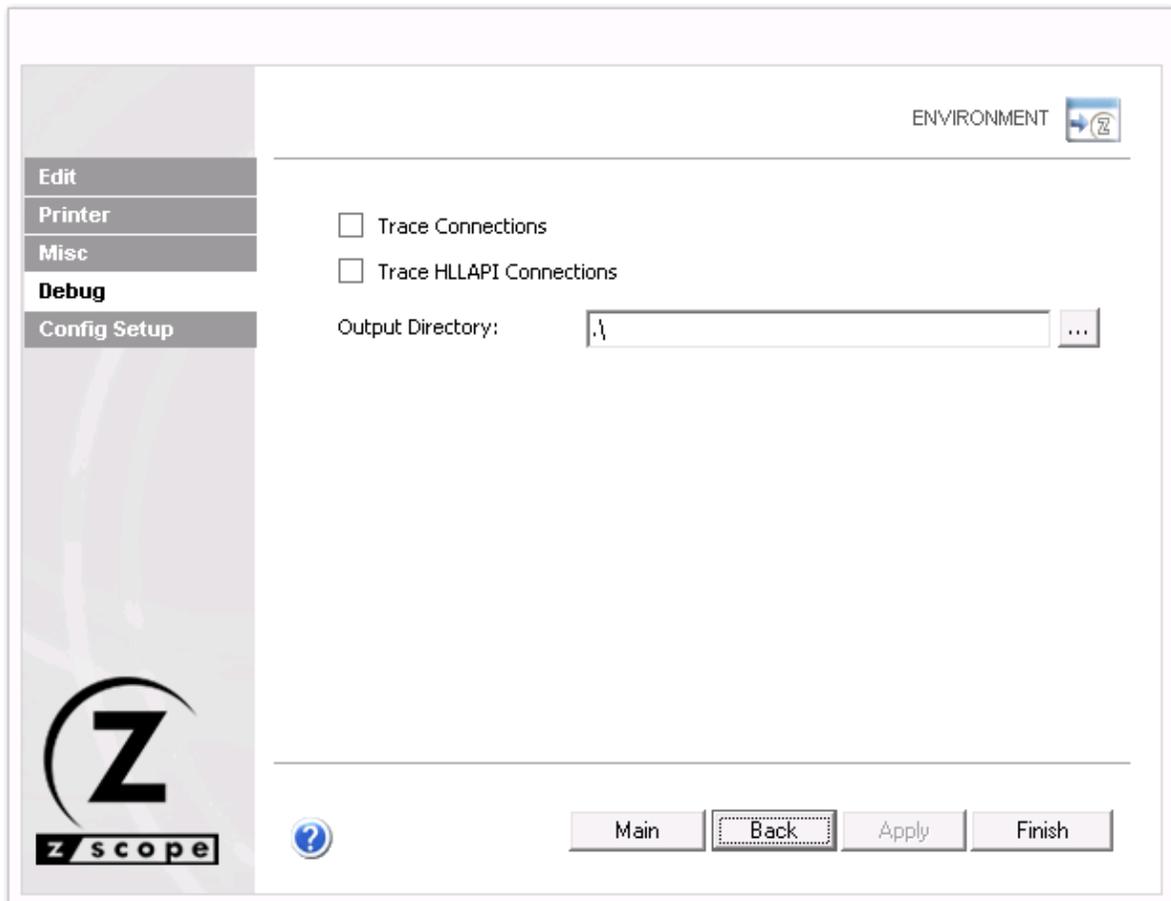
Choose how many seconds will pass before z/Scope Anywhere disconnects an inactive connection to a host. Zero seconds in this field means the connection will not be terminated by z/Scope Anywhere.

Read more:

- [Environment - Edit Settings](#)
- [Environment - Printer Settings](#)
- [Environment - Debug Settings](#)
- [Environment - Config Setup Settings](#)

7.7.4 Debug

In the 'Debug' tab you will find the following parameters:



Trace Connections

Check this option if you want to keep track of the connection's activity in a dump file that can be used later to trace errors.

Trace HLLAPI Connections

Check this option if you want to keep track of HLLAPI connections' activity in a dump file that can be used later to trace errors.

Output Directory

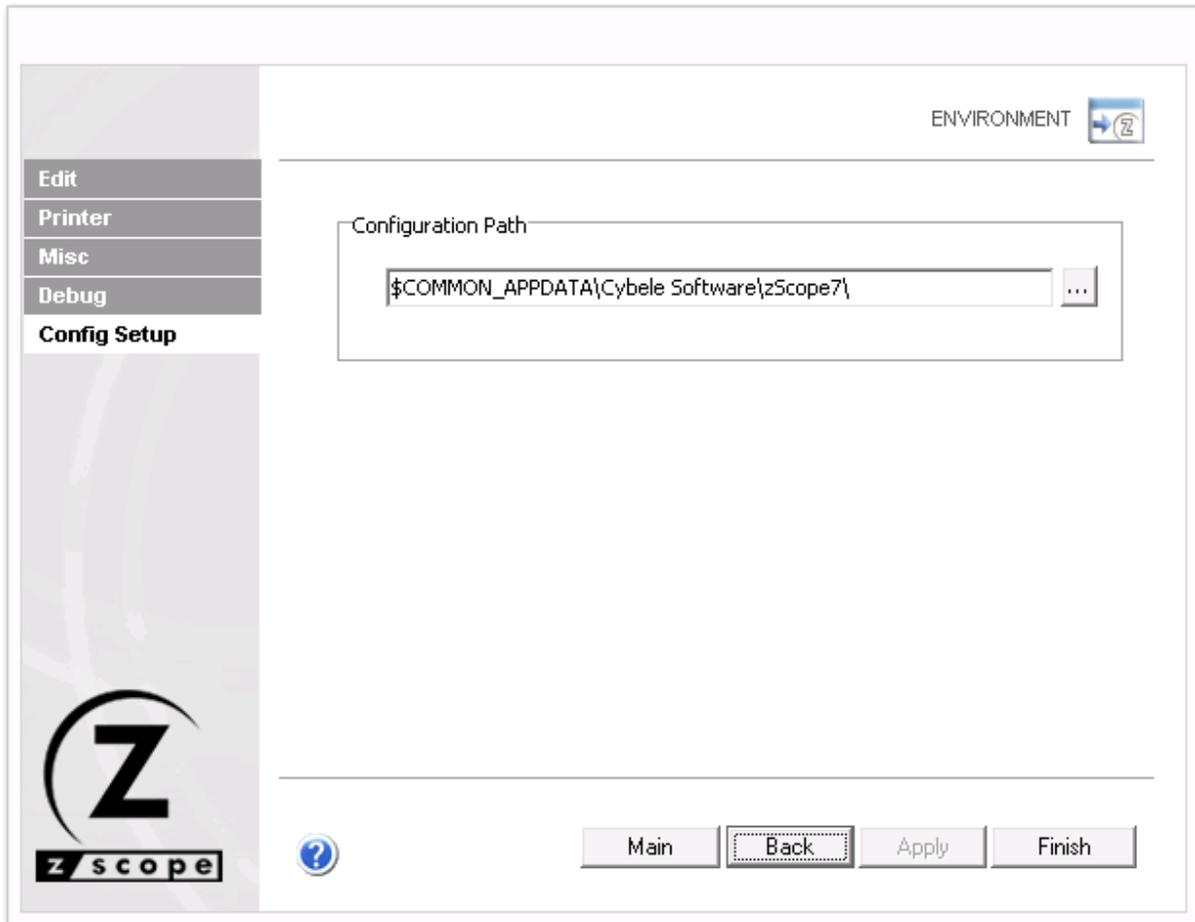
Here you can specify the directory where the trace files will be placed.

Read more:

- [Environment - Edit Settings](#)
- [Environment - Printer Settings](#)
- [Environment - Misc Settings](#)
- [Environment - Config Setup Settings](#)

7.7.5 Config Setup

In the 'Config Setup' tab you will find the following parameters:



Configuration Path

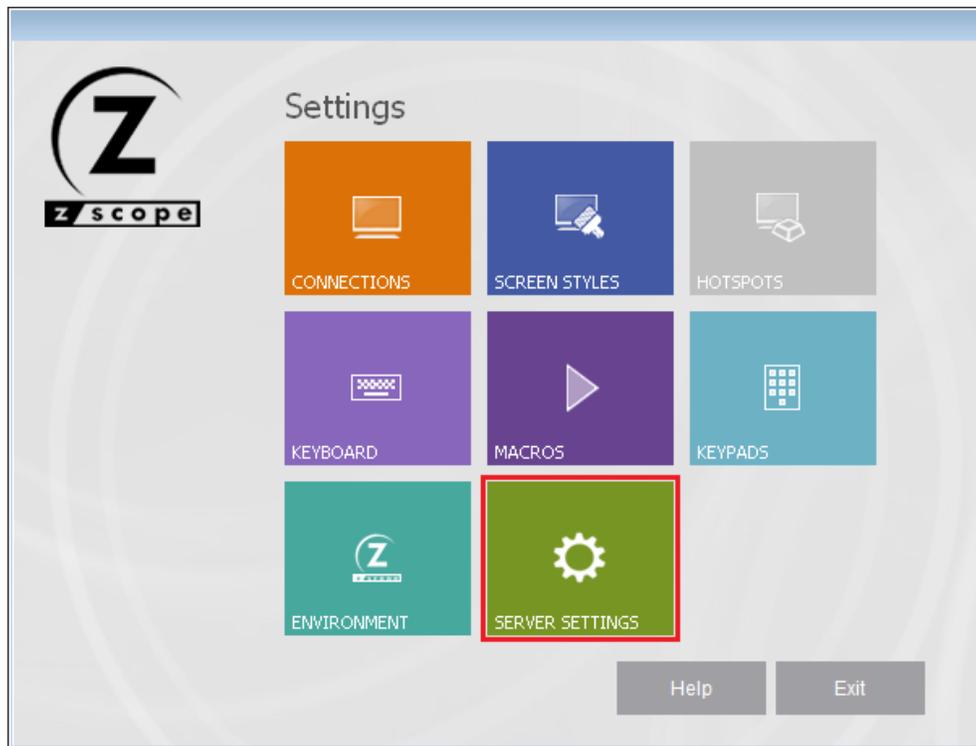
This is the path to where the z/Scope Anywhere configuration is stored.

Read more:

- [Environment - Edit Settings](#)
- [Environment - Printer Settings](#)
- [Environment - Misc Settings](#)
- [Environment - Debug Settings](#)

7.8 Server Settings

The Server Settings are managed on the 'Configuration Manager' through the 'Server Settings' icon.



For more information about the Server Settings, consult the following sections:

- [Communication](#)
- [Profiles](#)
- [OAuth/2](#)
- [OAuth/2 Users](#)
- [Permissions](#)
- [Web Auth Provider](#)
- [Migration](#)
- [Licenses](#)

7.8.1 Communication

In the 'Communication' tab you will find different parameters depending on your installation choices.

Server mode installation

The screenshot shows the 'Communication' tab in the 'SERVER SETTINGS' window. On the left is a navigation menu with options: Communication (selected), Profiles, OAuth/2, Permissions, Web Auth. Provider, Migration, and Licenses. The main area contains a 'Network ID' button, a 'Gateway list' table with a 'URL' header, and three input fields: 'Startup processes' (value 4), 'Processes in cache' (value 1), and 'Max users per process' (value 4). There are 'Add' and 'Remove' buttons next to the gateway list. At the bottom are 'Main', 'Back', 'Apply', and 'Finish' buttons. The z/Scope logo is in the bottom left corner.

Network ID

The network ID identifies this installation. z/Scope Anywhere Servers that want to share their resources through one or more Gateways must match their Network ID. Press this button to see and/or change the Network ID. The default value is a random string but you can change it to something more descriptive.

Gateway List

A list of the gateways that a user can connect to in order to access this server's resources. For a typical installation, with no load balancing architecture, leave it blank.

Add

Add a new gateway to the Gateway List. Only if you will use [Scaling and Load Balancing](#).

Remove

Remove a selected gateway from the Gateway List.

Startup processes

The number of processes that z/Scope Anywhere will start by default, as opposed to starting them on demand when a user connects. This reduces the waiting time for the user.

Processes in cache

The number of processes that z/Scope Anywhere will reserve in memory to attend new connections after the startup processes are executed.

Max users per process

The maximum number of users per process. If the total amount of connections exceeds the maximum users for all the processes, a new process is created.

Desktop mode installation

The screenshot shows the 'SERVER SETTINGS' window for z/Scope Anywhere, specifically the 'Communication' tab. The left sidebar contains a navigation menu with the following items: Communication (selected), Profiles, OAuth2, Permissions, Web Auth. Provider, and Migration. The main content area displays the following configuration options:

- Bind to IP:** A dropdown menu currently set to '(All unassigned)'. To its right is a small icon of a document with a lock.
- Protocol:** A dropdown menu currently set to 'HTTPS'. To its right is a small icon of a document with a lock.
- Port:** A text input field containing the value '8024'.

At the bottom of the window, there is a help icon (a question mark in a circle) and four buttons: 'Main', 'Back', 'Apply', and 'Finish'. The z/Scope logo is visible in the bottom left corner of the window.

Bind to IP

Use this option to restrict access to the service through one specific IP. The "All

unassigned" option allows access through all the possible IP's for the computer where z/Scope Anywhere is installed.

Protocol

Choose between the http and https protocol. The https protocol uses SSL. Hence, it's more secure.

Port

Choose the port number for this computer to be accessed.



Press this button to [configure HTTP error responses](#)



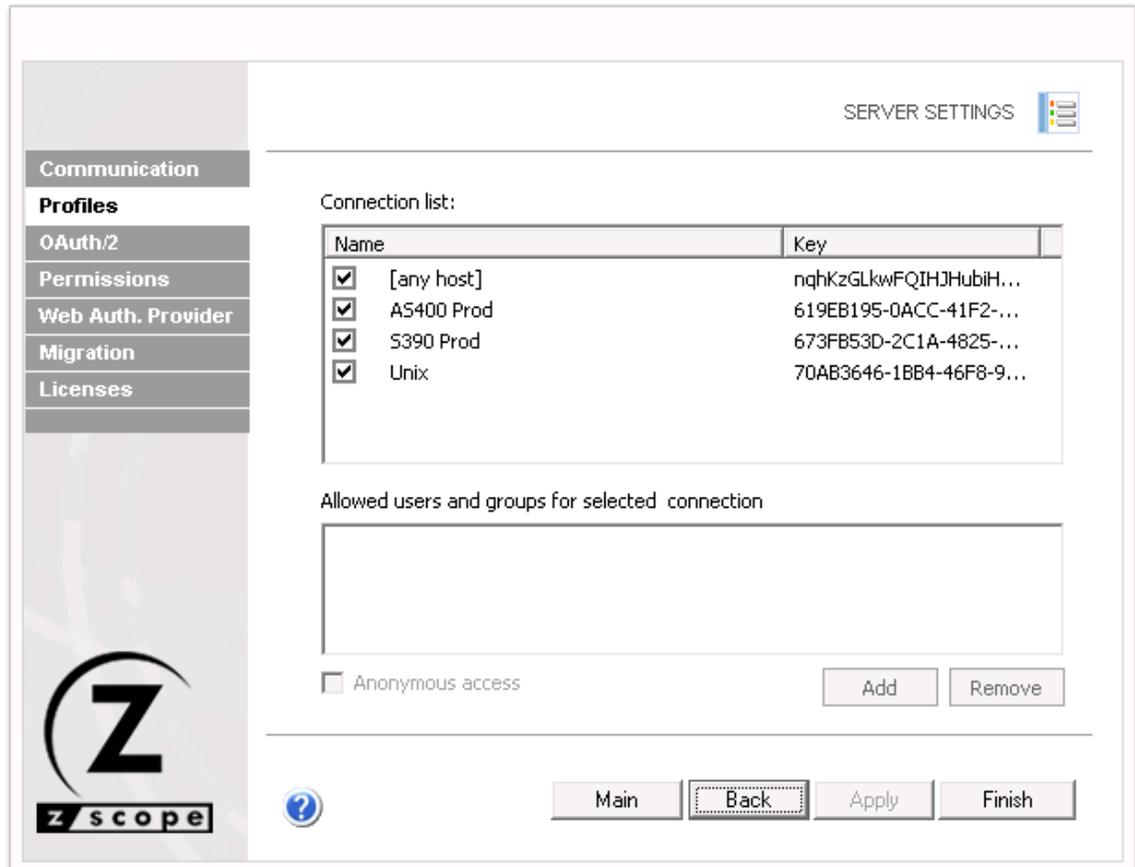
Press this button to access the options for replacing the default installed certificate with your own. Read more about this subject on the topic [Managing the SSL Certificate](#).

Read more:

- [Server Settings - Profiles Settings](#)
- [Server Settings - OAuth/2 Settings](#)
- [Server Settings - OAuth/2 Users Settings](#)
- [Server Settings - Permissions Settings](#)
- [Server Settings - Web Auth Provider Settings](#)
- [Server Settings - Migration Settings](#)
- [Server Settings - Licenses Settings](#)

7.8.2 Profiles

In the 'Profiles' tab you will find the following parameters:



Connection List

Name

Show you the name of the listed connection profiles. If you uncheck the checkbox placed beside a connection, you will inactivate this connection, and it won't be shown on the web interface.

Allowed users and groups for selected connection

Add

Select the connection on the connection list and click on the "Add" button to grant permission to a new user or group.

Remove

Select the connection on the connection list and click on "Remove" button to take out a permission to a listed user or group.

Anonymous access

Check this option to make this connection available without any authentication. Use this option, if you want this connection to be available to everyone. Checking this option will disable the Add and Remove buttons.

Read more:

- [Server Settings - Communication Settings](#)
- [Server Settings - OAuth/2 Settings](#)
- [Server Settings - OAuth/2 Users Settings](#)
- [Server Settings - Permissions Settings](#)
- [Server Settings - Web Auth Provider Settings](#)
- [Server Settings - Migration Settings](#)
- [Server Settings - Licenses Settings](#)

7.8.3 OAuth/2

In the 'OAuth/2' tab you will find the following parameters:

The screenshot shows the 'SERVER SETTINGS' interface for 'OAuth/2'. On the left is a navigation menu with the following items: Communication, Profiles, OAuth/2 (highlighted), Permissions, Web Auth. Provider, Migration, and Licenses. The main content area contains the following controls:

- Enable Google OAuth/2
- Force approval prompt
- Client ID:
- Client Secret:

At the bottom of the page, there is a 'z scope' logo, a help icon (question mark), and four buttons: Main, Back, Apply, and Finish.

Enable Google OAuth/2

Check this option to enable the [Google Account Integration](#) for the application authorization.

The other tab controls and the tab 'OAuth/2' Users will only be available after checking this option.

Force approval prompt

If this option is marked, the user will be always prompt to approve the account integrations, when logging into the application.

Client ID

[Google Client ID](#) generated while configuring the google account integration.

Client Secret

[Google Client Secret](#) generated while configuring google the account integration.

Read more:

- [Server Settings - Communication Settings](#)

-
- [Server Settings - Profiles Settings](#)
 - [Server Settings - OAuth/2 Users Settings](#)
 - [Server Settings - Permissions Settings](#)
 - [Server Settings - Web Auth Provider Settings](#)
 - [Server Settings - Migration Settings](#)
 - [Server Settings - Licenses Settings](#)

7.8.4 OAuth/2 Users

In the 'OAuth/2' tab you will find the following parameters:

The screenshot displays the 'OAuth/2 Users' configuration interface. On the left is a sidebar with a navigation menu including 'Communication', 'Profiles', 'OAuth/2', 'OAuth/2 Users' (highlighted), 'Permissions', 'Web Auth. Provider', 'Migration', and 'Licenses'. The main area is titled 'SERVER SETTINGS' and features a 'Switch base' button. Under the 'E-Mail' heading, there is a list containing 'supportmail@gmail.com' with a key icon. Below the list is a checked 'Enabled' checkbox and 'Add' and 'Remove' buttons. The 'Associated User/Group Access' section shows a list with 'CYBELESOFT\support' and a user icon, with 'Add' and 'Remove' buttons below it. At the bottom of the page are 'Main', 'Back', 'Apply', and 'Finish' buttons.

E-mail

List with the authorized e-mails to access the application.

Add

Authorize a new e-mail to access the application by the Account Integration.

Remove

Select an e-mail and click on the 'Remove' button to take out its permission to access the application through the account integration.

Enabled

Select an e-mail on the E-mail list and uncheck the 'Enabled' field if you want to disable the access of this e-mail.

Associated User/Group Access

List of Active Directory Users and Groups associated with the e-mail selected on the E-mail List above.

Add

Grant the permissions of an Active Directory User or Group to the selected e-mail on the list above.

Remove

Disassociate a User/Group from the e-mail selected on the list above.

Switch base

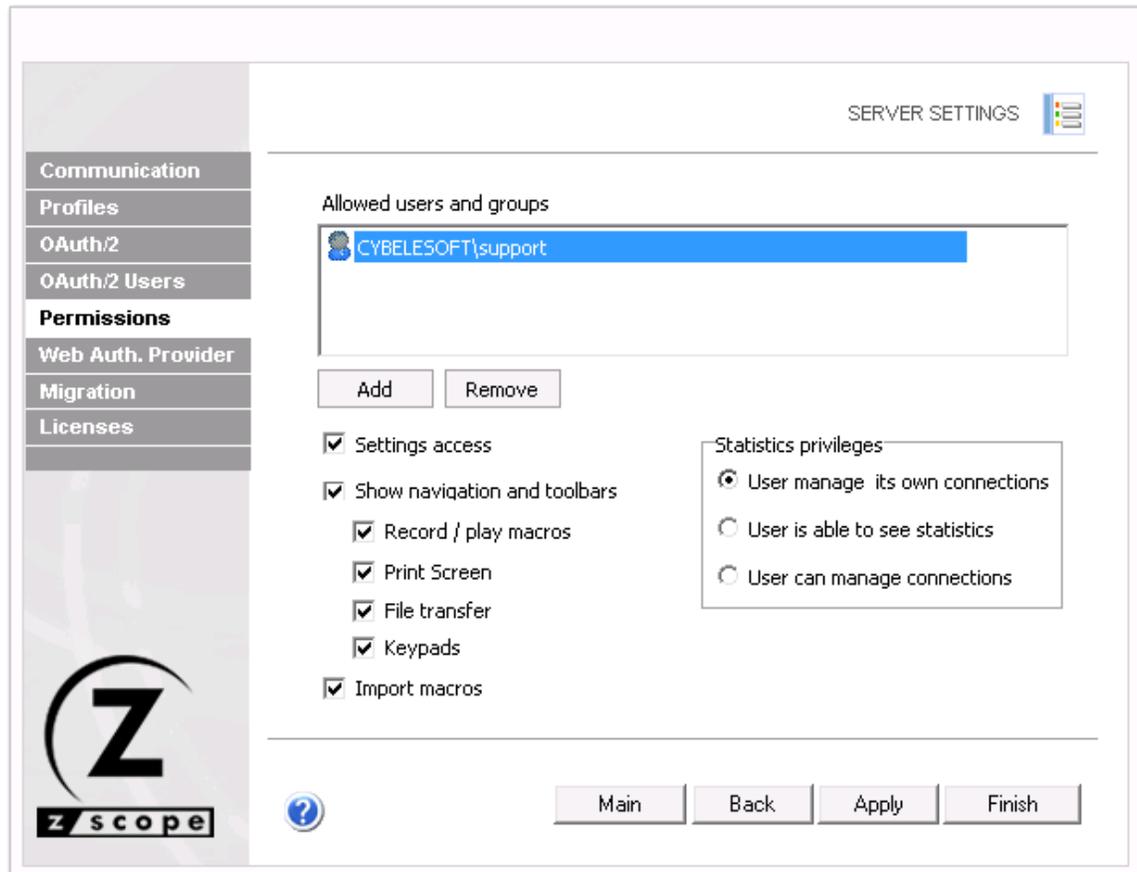
Click on this button to have the E-mails List switched with the Active Directory Users/Groups List. The upper list selected item is always the reference to associate the items from the bottom list.

Read more:

- [Server Settings - Communication Settings](#)
- [Server Settings - Profiles Settings](#)
- [Server Settings - OAuth/2 Settings](#)
- [Server Settings - Permissions Settings](#)
- [Server Settings - Web Auth Provider Settings](#)
- [Server Settings - Migration Settings](#)
- [Server Settings - Licenses Settings](#)

7.8.5 Permissions

In the 'Permissions' tab you will be able to select users and give them special permission to access different z/Scope Anywhere features:



Allowed users and groups

Lists the users and groups to be granted features and statistics permissions.

Add

Adds a new Active Directory user or group into the Permissions list.

Remove

Select a user/group and click on the 'Remove' button to remove all of this section's permissions from them.

Features Permissions

Settings access

Gives the selected user access to see and open the system "Settings" from the

[Start Page.](#)

Show navigation and toolbars

If you uncheck this option most of the navigation controls ([Navigation](#), [Open sessions List](#)) and toolbars ([Start Page Toolbar](#), [Connection Toolbar](#)) will be disabled on the user interface.

When you disable this option the following options will be automatically disabled along with it:

Record / play macros

Enables the [Record and Play macros](#) feature for the selected user.

Print Screen

Allows the selected user to take Print Screens from an active connection.

File Transfer

Gives the selected user access to perform [File Transfers](#).

Keypads

Allows the selected user to access the connections [Keypads](#).

Import Macros

Allows the selected user to import Macros.

Statistics privileges

User manage its own connections

Check this option if you want the selected user to open and disconnect only their own connections.

User is able to see statistics

If you mark this option, the selected user/group will be able to see the system statistics for all users.

User can manage connections

This option will authorize the selected user to see and manage all z/Scope Anywhere connections and sessions (disconnect and delete active sessions from other users, for example).

Read more:

- [Server Settings - Communication Settings](#)
- [Server Settings - Profiles Settings](#)
- [Server Settings - OAuth/2 Settings](#)
- [Server Settings - OAuth/2 Users Settings](#)
- [Server Settings - Web Auth Provider Settings](#)
- [Server Settings - Migration Settings](#)
- [Server Settings - Licenses Settings](#)

7.8.6 Web Auth Provider

In the 'Web Auth Provider' tab you will find the following parameters:

SERVER SETTINGS

Communication
Profiles
OAuth/2
Permissions
Web Auth. Provider
Migration
Licenses

Enable External Web Authentication Provider

Request Method
 GET POST

Validation URL:

This URL requires authentication

UserName: Password:

z scope

?

Main Back Apply Finish

Enable External Web Authentication Provider

Check this option to use an external web authentication provider.

Request Method

Select the HTTP method with which you want to communicate with the validation URL.

Validation URL

Complete the validation URL. This is the URL that z/Scope Anywhere will make a call to in order to validate the user.

This URL requires authentication

Check this if the validation URL requires authentication and complete the credentials. These credentials will be used to log in to the validation URL.

Read more:

- [Server Settings - Communication Settings](#)
- [Server Settings - Profiles Settings](#)

- [Server Settings - OAuth/2 Settings](#)
- [Server Settings - OAuth/2 Users Settings](#)
- [Server Settings - Permissions Settings](#)
- [Server Settings - Migration Settings](#)
- [Server Settings - Licenses Settings](#)
- [Web Authentication Provider](#)
- [External Authentication](#)

7.8.7 Migration

In the 'Migration' tab you will find the following parameters:



The screenshot shows the 'Migration' tab in the 'SERVER SETTINGS' configuration window. On the left is a navigation menu with options: Communication, Profiles, OAuth/2, Permissions, Web Auth. Provider, Migration (selected), and Licenses. The main area is titled 'Migration Server URL' and contains a checkbox labeled 'Enabled' which is currently unchecked. Below the checkbox is a text input field. At the bottom of the window, there are four buttons: Main, Back, Apply, and Finish. The z/scope logo is visible in the bottom left corner of the window.

Migration Server URL

Enable the checkbox to use a migration server, and complete the migration server's URL.

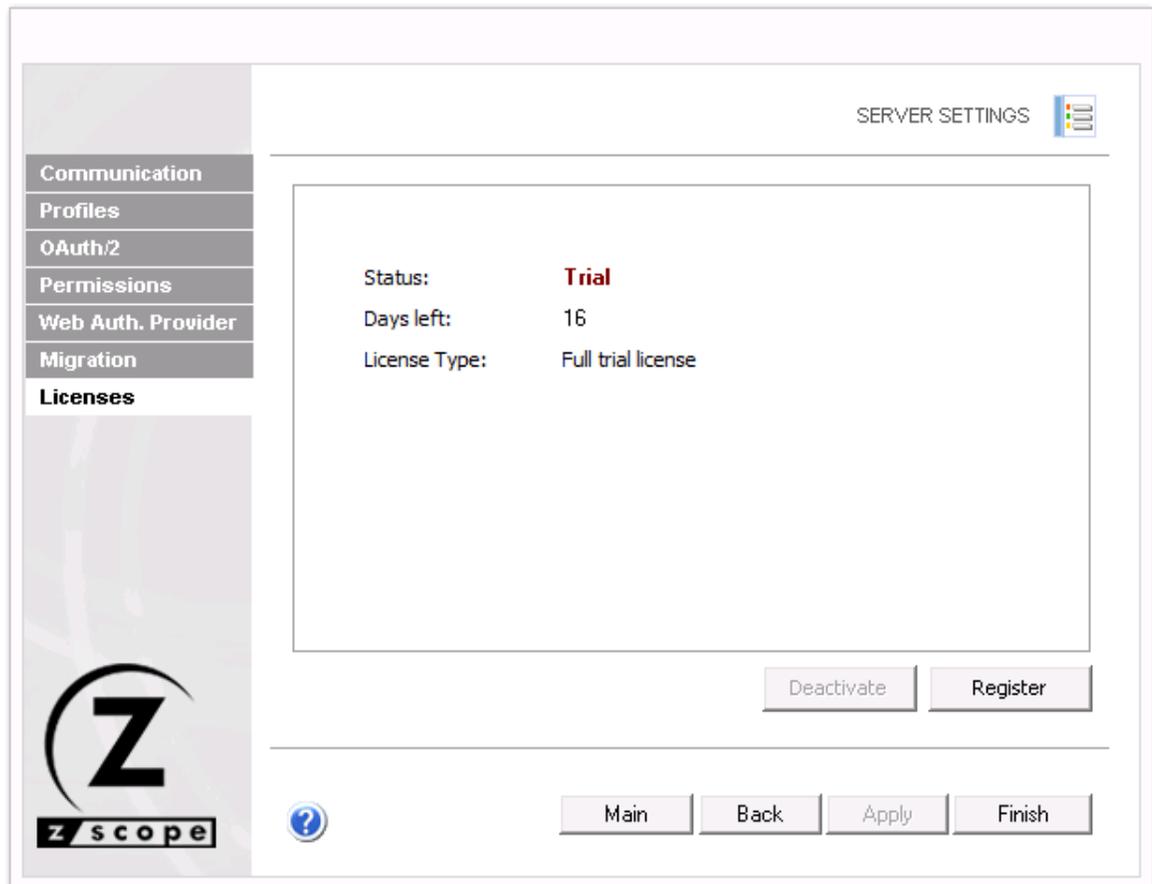
Read more:

- [Server Settings - Communication Settings](#)
- [Server Settings - Profiles Settings](#)
- [Server Settings - OAuth/2 Settings](#)
- [Server Settings - OAuth/2 Users Settings](#)
- [Server Settings - Permissions Settings](#)

- [Server Settings - Web Auth Provider Settings](#)
- [Server Settings - Licenses Settings](#)

7.8.8 Licenses

In the 'Licenses' tab you will find the following parameters:



This tab always shows the current license. If you don't have a license, you will see a message letting you know how many evaluation days you have left until the trial finishes, as the image above.

a. Register a license:

If you have got your z/Scope Anywhere license, you should register it by following the next steps:

1. Click on the "Register" button.
2. Enter the License "E-mail" and "Serial" number information, received by e-mail.

Modify License ✕

Enter the e-mail address and serial number you received by e-mail.

E-Mail:

Serial:

3. Press Activate.
4. If the information is correct, you probably have z/Scope Anywhere registered already.
5. Verify the new licensing information on the "License" Tab.
6. Contact us if you want to increase your license limits or if you want to enable a new feature.

b. Deactivate this machine:

You may want to deactivate a machine in order to make the license limits available to be used on another machine.

The deactivation button will be enabled only when a license is already registered on this machine.

To deactivate your already registered license, follow the steps below:

1. Click on the "Deactivate" button.
2. Press "Yes" on the Confirmation Dialog.
3. A message confirming the license deactivation will be shown.

c. Show the current Licensing Status:

The License status can be:

Trial	Right after you install z/Scope Anywhere, the license status will be "Trial". This status will be kept until the trial period is over. On this status you are able to see how many days left the trial period still has.
Registered	After buying z/Scope Anywhere license and registering, you will have the application status turned to "Registered". On this status you will have the information regarding the license registration: <ol style="list-style-type: none"> 1. E-mail, 2. Company or Name, 3. Serial Number, 4. License type, 5. Expiration date, 6. License limits and 7. Enabled features.
Trial Expired	If you do not register a license until the end of the trial period, the status will turn to "Trial Expired". During this status the application won't be available.

Deactivated by User	Whenever you deactivate a license, z/Scope Anywhere application will have the "Deactivated by User" Status. This status will be kept until you register another license. During this status the application won't be available.
---------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

[Contact us](#) regarding pricing and/or licensing questions or visit our website <http://www.cybelesoft.com/buy/>.

Read more:

- [Server Settings - Communication Settings](#)
- [Server Settings - Profiles Settings](#)
- [Server Settings - OAuth/2 Settings](#)
- [Server Settings - OAuth/2 Users Settings](#)
- [Server Settings - Permissions Settings](#)
- [Server Settings - Web Auth Provider Settings](#)
- [Server Settings - Migration Settings](#)

7.9 Gateway Manager

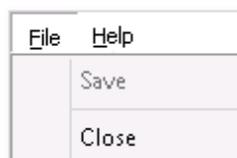
The Gateway Manager is a tool to configure gateway options.

Install z/Scope Anywhere and look for the z/Scope Anywhere Gateway' shortcut in the Start Menu.



Its main menu has two sub-menus:

File Menu



Save

Click to save any change.

Close Save

Click on this option to exit the z/Scope Anywhere Gateway manager.

Help Menu



About z/Scope Anywhere Gateway...

Click on the 'About...' option to see the application version and build number.

General tab options

Bind to IP

Use this option to restrict access to the service through one specific IP. The "All unassigned" option allows access through all the possible IP's for the computer where z/Scope Anywhere is installed.

Protocol

Choose between the http and https protocol. The https protocol uses SSL. Hence, it's more secure.



Press this button to [configure HTTP error responses](#)



Press this button to access the options for replacing the default installed certificate with your own. Read more about this subject on the topic [Managing the SSL Certificate](#).

Port

Choose the port number for this computer to be accessed.

Network ID

The network ID identifies this installation. This Network ID must be matched by all the servers and gateways participating in the load balancing scheme. Press this button to see and/or change the Network ID. The default value is a random string but you can change it to something more descriptive.

Read more:

- [Scaling and Load Balancing](#)

7.10 Configure HTTP Error Responses

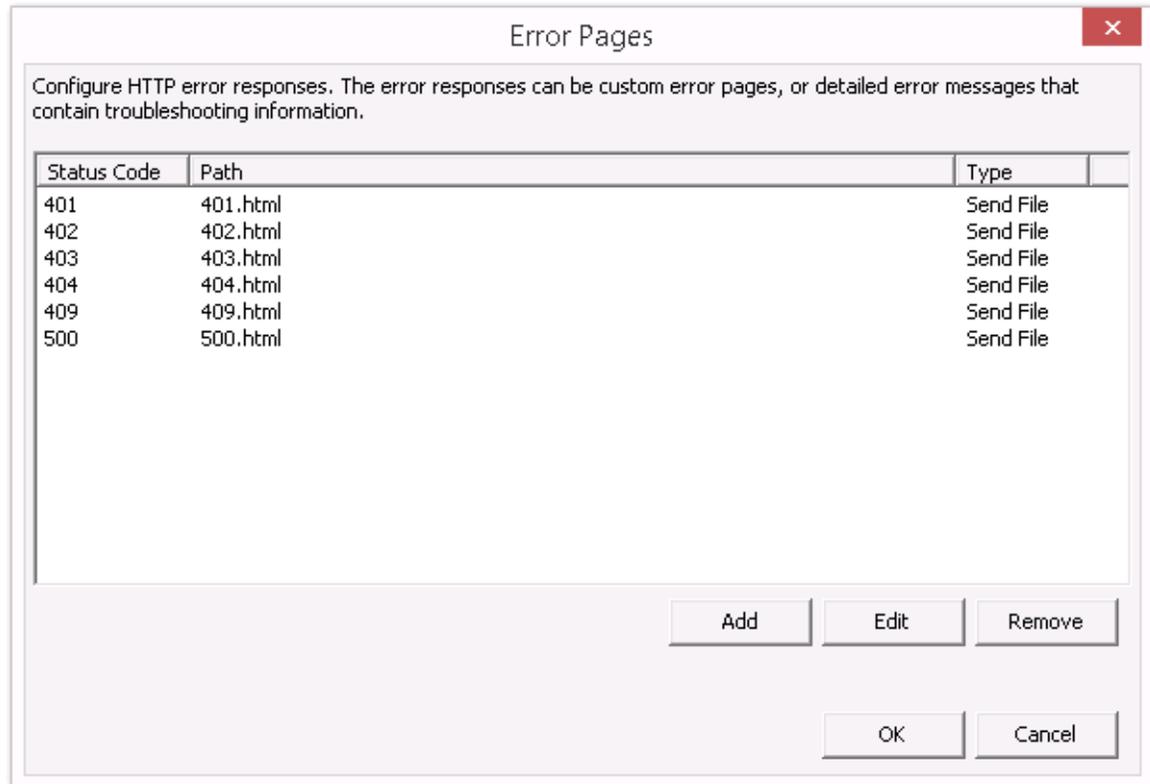
You can access configuration for the HTTP Error response pages by pressing this button:



which you will find in the [Gateway manager General tab](#), when the protocol is set to

HTTPS.

You will be presented with the following dialog:



Status Code

This numeric code indicates the status of the response when a browser tries to connect to z/Scope Anywhere. The error responses may be displayed in the client browser.

The HTTP status code may indicate whether a request is successful or unsuccessful, and may also reveal the exact reason that a request is unsuccessful.

Path

Shows the path to the error file that will show in case of a particular status code. The default path is the 'webzs' directory in the z/Scope Anywhere installation directory.

Type

Shows the z/Scope Anywhere action in the event of an error status code:

- Send file: z/Scope Anywhere will show an error page located physically in the server's computer.
- Redirect: z/Scope Anywhere will redirect the page to any web page indicated in the configuration.

Add

Press this button to add a new Custom Error page. Read more about this below.

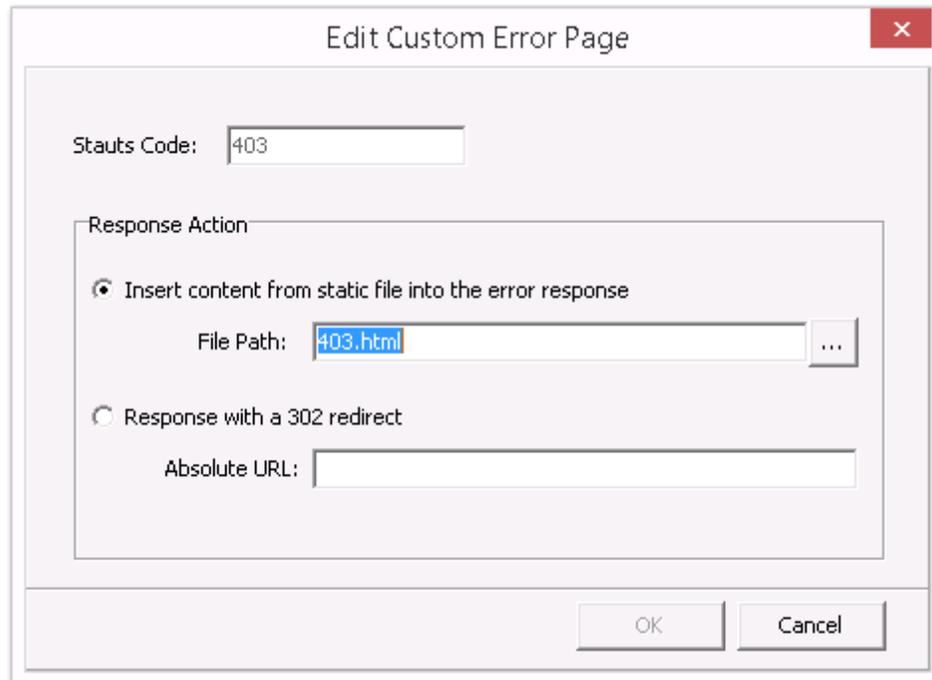
Edit

Press this button to edit an existing Custom Error Page. Read more about this below.

Remove

Press this button to remove a selected Custom Error Page.

If you choose to add or edit a Custom Error Page, you will be presented with the following dialog:



The dialog box is titled "Edit Custom Error Page" and contains the following fields and options:

- Status Code:** A text field containing the value "403".
- Response Action:** A section containing two radio buttons:
 - Insert content from static file into the error response**: This option is selected. Below it is a "File Path:" text field containing "403.html" and a browse button (three dots).
 - Response with a 302 redirect**: This option is unselected. Below it is an "Absolute URL:" text field.
- Buttons:** "OK" and "Cancel" buttons are located at the bottom right of the dialog.

Status Code

Enter the Status Code that you want to configure.

Response Action

Choose whether z/Scope Anywhere will show a page that is stored locally or will redirect the user to another web page.

Insert Content from file into the error response

Choose this option if you want z/Scope Anywhere to show a static page locally stored in your z/Scope Anywhere server. Complete the file path by selecting the file you want to show with the button.

Response with a 302 redirect

Choose this option if you want z/Scope Anywhere to redirect users to a web page. Type the Absolute URL to this web page in the field below

Press OK to save the changes.

7.11 Managing the SSL Certificate

An SSL certificate is an effective way to secure a website against unauthorized interception of data. At its simplest, an SSL Certificate is used to identify the website and encrypt all data flowing to and from the Certificate holder's Web site. This makes all exchanges between the site and its visitors 100 percent private.

A valid SSL certificate is included with the z/Scope Anywhere installation and all communications are already encrypted with the product's default certificate. You may want to create your own certificate to identify your company better.

Managing the SSL Certificate

1. There are two ways of creating your own SSL certificate:
 - a. Create [A self-signed certificate](#)
 - b. Use [A CA Certificate](#)
2. Once you already have your certificate files, go to the z/Scope Anywhere Configuration Manager, click on the "Server Settings" box and then go to the "Communication" tab.
3. Click on the "Manage Certificate" option.
4. On this screen you should inform the location of the certificate files, as follows:

Certificate File

Inform the path to the certificate file.

CA File

If the certificate is issued by a unknown CA, you should fill in the pathname to the CA certificate.

Private Key

You should inform the pathname to the certificate private key file.

PassPhrase

Inform the password, if there is any, used when the private key was generated.

Note: The path names can be absolute (C:\MyCertPath\UserThisCert.pem) or relative to the path where z/Scope Anywhere is installed (\cert\UserThisCert.perm).

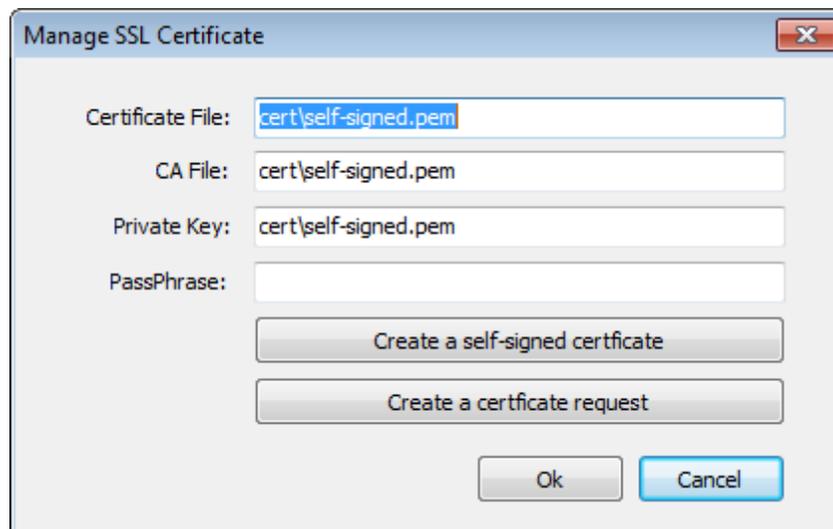
Read more:

- [The Default Embedded Certificate](#)
- [A Self-Signed Certificate](#)
- [A CA Certificate](#)

7.11.1 The Default Embedded Certificate

A certificate called "self-signed.pem" is included with the z/Scope Anywhere installation. You will find it inside the \cert directory, located inside the z/Scope Anywhere application path.

If you want to use this default certificate you should have the files set as the image below:



Note: Because this certificate is not issued by a known Certificate Authority (CA), the web browsers will produce a warning about verifying its authority.

Read more:

- [A Self-Signed Certificate](#)
- [A CA Certificate](#)

7.11.2 A Self-Signed Certificate

This option is used to create your own self-sign certificate.

1. Go to the z/Scope Anywhere Configuration Manager, click on the "Server Settings" box and then go to the "Communication" tab. Press the "Manage Certificate" button.
2. Press the "Create a self-signed certificate" button.
3. Fill in the form below with your organization data:



Country Code:

State:

Locality:

Organization:

Organizational Unit:

Common Name:

E-Mail address:

Bits: >= 512

Certificate and private key are written to the same file.
Private key will not be password protected.

Create Close

4. The "Common Name" field should be filled with the server+domain that will be used to access the z/Scope Anywhere server (zscopeanywhere.mycompany.com).
5. Press Create.
6. Select the location where you want the certificate to be stored.
7. The application will start using this self-signed certificate just created by you.

Note: Because this certificate is not issued by a known Certificate Authority (CA), the web browsers will warn you they can not verify its authority.

Read more:

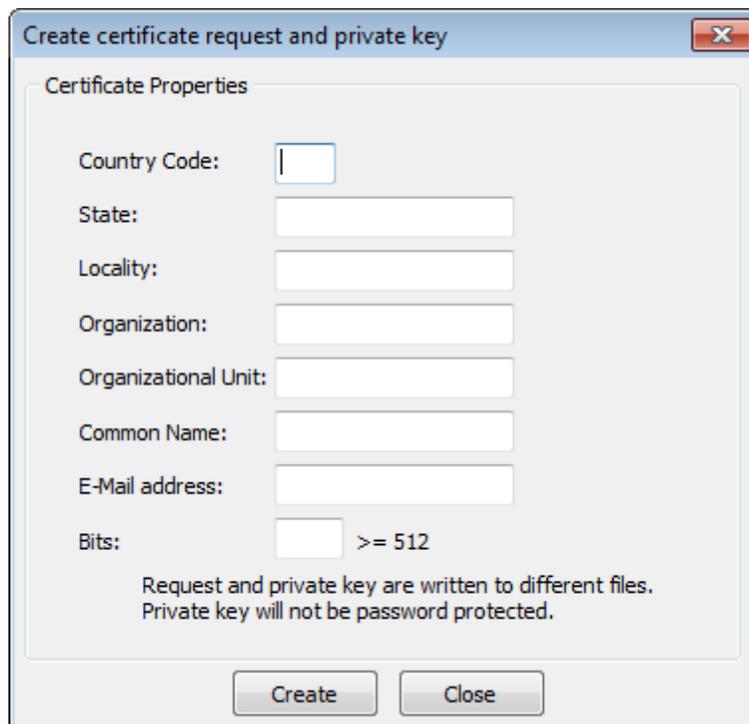
- [The Default Embedded Certificate](#)
- [A CA Certificate](#)

7.11.3 A CA Certificate

In order to use this option you will have to get a certificate from a known Certificate Authority (CA). Some CA examples are GoDaddy, VeriSign, Thawte, GeoTrust and Network Solutions.

The CA will ask you for a "certificate request". Create one following the next steps:

1. Go to the z/Scope Anywhere Configuration Manager, click on the "Server Settings" box and then go to the "Communication" tab . Press the "Manage Certificate" button.
2. Click on the "Create a certificate request" button.
3. Fill in the form below with your organization data:



4. The "Common Name" field should be filled with the server+domain that will be used to access the z/Scope Anywhere server (zscopeanywhere.mycompany.com).

5. Press "Create" and the application will generate two files.

6. The first window will ask you a location to keep the private key file: "Where do you want the private key file to be stored".

- a. Inform a name for your private key.
- b. Select a place to keep it safe.
- c. Press the "Save" button.

7. The second window will ask you a location to keep the request file: "Where do you want the request file to be stored".

- a. Inform a name for the request file.
- b. Select a directory where you can find the file later on to send to the CA.
- c. Press the "Save" button.

8. The first file is the certificate private key. It should always be kept safe with you.

9. Send only the request file to the CA.

After the CA validation process, place the certificate they sent to you on ThinVNC cert directory and inform the path to the files on ThinVNC [Manage Certificate](#) option (Certificate file, CA file and Private Key).

Read more:

- [The Default Embedded Certificate](#)
- [A Self-Signed Certificate](#)

7.12 Custom Settings

In addition to the Configuration Manager settings, z/Scope Anywhere offers another way in which global parameters can be easily set from the application website. These global parameters apply to all the z/Scope Anywhere functioning, regardless of the session.

Read more:

- [The customSettings Configuration Object](#)
- [Changing Permissions by Using customSettings](#)
- [Custom Settings Example](#)

7.12.1 The customSettings Configuration Object

The *customSettings* object is a JSON structure placed within the customsettings.js file, which is included in the z/Scope Anywhere installation. You can find it in the installation directory, inside the 'webzs' folder. This javascript file is loaded when z/Scope Anywhere is opened in the browser. Like any other javascript file, you can open it with any text editor, like notepad.

By default, the customSettings object is empty.

```
var customSettings = {  
};
```

Some of the settings specified in this file can conflict with those set in the configuration manager. In this case, the custom settings will override the manager's profile object attributes.

Note: The custom settings will apply to all sessions. Also, bear in mind that having the configuration in a file that is not seen in the Manager interface might lead to misinterpretation.

Therefore, it is highly recommended to always use the z/Scope Anywhere Configuration Manager for configuring profiles. The use of this file is recommended only for situations when many profiles are already created and it would take too long to modify them all.

Read more:

- [Changing permissions by using customSettings](#)
- [Custom Settings Example](#)

7.12.2 Changing Permissions by Using Custom Settings

The *connParams* attribute is a hierarchical substructure inside customSettings.

The following table shows the current available *connParams* settings:

forceAjax	Force z/Scope Anywhere to use Ajax by setting this parameter to true.
-----------	-----------------------------------------------------------------------

The *permissions* attribute is a hierarchical substructure inside *customSettings*. The first attribute level inside *permissions* will be applied to all users. A second attribute level, inside the *anonymous* attribute, will be applied only to users accessing z/Scope Anywhere without authentication. The settings for unauthenticated users will override the global permissions values for users that access without authentication.

The following table shows the current available *permission* settings:

settings	Toggles the visibility of the button that accesses Profile Settings.
macros	Toggles the visibility of the macro options in the menu.
fileTransfer	Toggles the visibility of the file transfer options in the menu.
printScreen	Toggles the visibility of the screen print option in the menu.
keypads	Toggles the visibility of the keypad options.

Read more:

- [The customSettings configuration object](#)
- [Custom Settings Example](#)

7.12.3 Custom Settings Example

In the following example, macros and file transfer options are restricted for all users. Unauthenticated users will have the same restrictions in defined inside permissions and, additionally, the ones defined inside anonymous. The *ConnParams* settings are commented.

```
var customSettings = {
  /*
  "connParams": {
    "forceAjax": true
  }
  ,*/
  "permissions": {
    // overrides permission settings for all users
    "macros": false,
    "fileTransfer": false,
    // overrides permission settings for anonymous users
    "anonymous": {
      "settings": false,
      "printScreen": false,
      "keypads": false
    }
  }
};
```

Read more:

- [The customSettings configuration object](#)
- [Changing permissions by using customSettings](#)

8 Scaling and Load Balancing

Scaling and load balancing come into play when one machine is not capable of managing all the required resources. Too many concurrent connections may cause an overload.

Load balancing and fault tolerance are methodologies designed to distribute workload across multiple services to achieve optimal resource utilization, avoid overload and allow the system to operate properly in the event of failure of any of its components.

z/Scope Anywhere provides components that allow you to distribute the workload across multiple servers. You can scale the application availability in terms of server instances and failover scenarios.

Some of the benefits of load balancing:

- Avoids the overload by distributing the connections among different servers
- Minimizes response time
- More reliability (redundancy)
- Fail over control

This help section is intended to show you how to create a network configuration using the load balancing capabilities included in z/Scope Anywhere.

Read More:

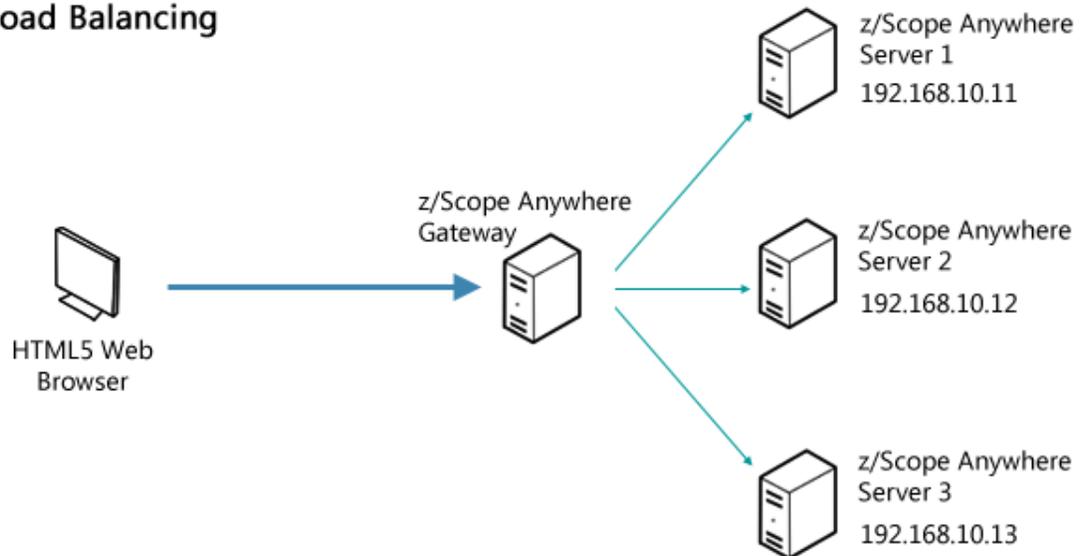
- [Scaling and Load Balancing Configurations](#)
- [Installing Componentes](#)
- [Configuring a Load Blancing Scenario](#)

8.1 Scaling and Load Balancing Configurations

If you arrive to the conclusion that your z/Scope Anywhere environment would benefit from using load balancing, you can choose between two possible architectures. This decision is an essential step in planning the hardware scheme and configuring the system to work in a distributed way.

Scenario 1: One Gateway and multiple Servers

z/Scope Anywhere Load Balancing

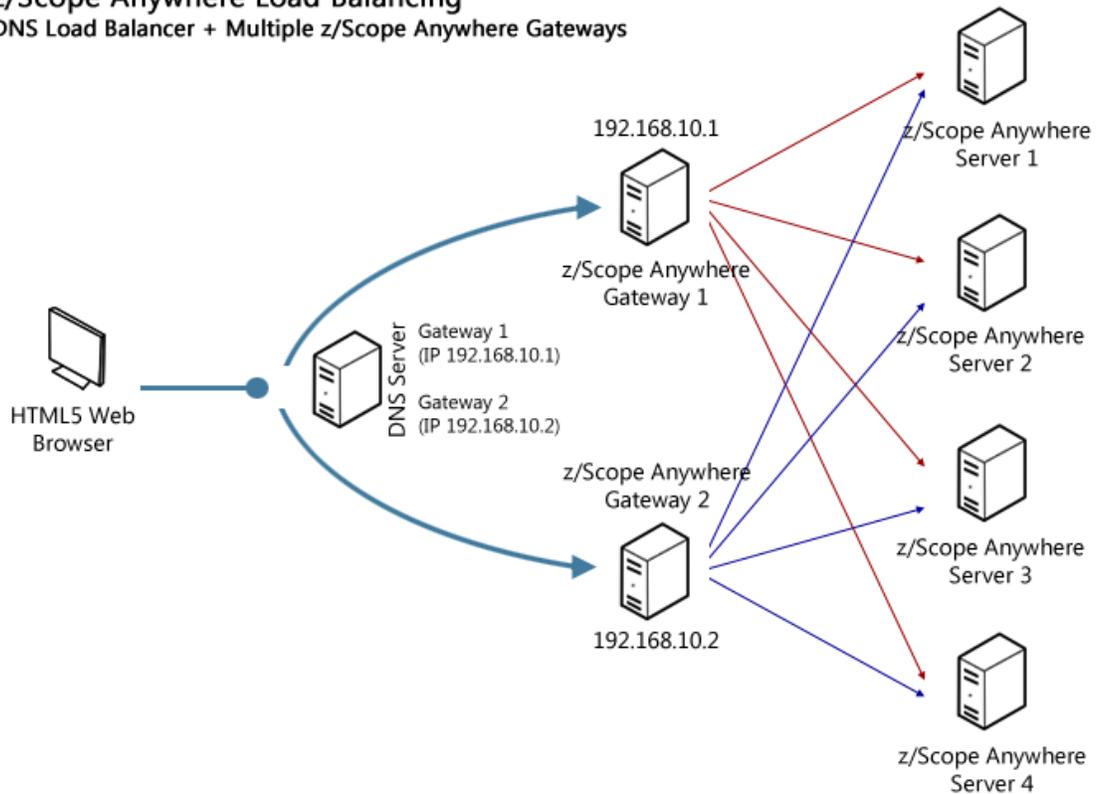


In this simple scenario, a single Gateway distributes the connection load between a number of Servers.

Scenario 2: Multiple Gateways and multiple Servers

z/Scope Anywhere Load Balancing

DNS Load Balancer + Multiple z/Scope Anywhere Gateways



This second scheme is composed by multiple Servers, multiple Gateways and the DNS Server, its domain name associated to all the available Gateways' IPs.

Read More:

- [Installing Components](#)
- [Configuring a Load Balancing scenario](#)

8.2 Installing Components

In this section you will learn how to set up z/Scope Anywhere's components in a load-balancing network configuration.

You can install z/Scope Anywhere in desktop mode and server mode. In order to configure a load balancing scenario, you need to choose the Server mode installation.

Desktop mode

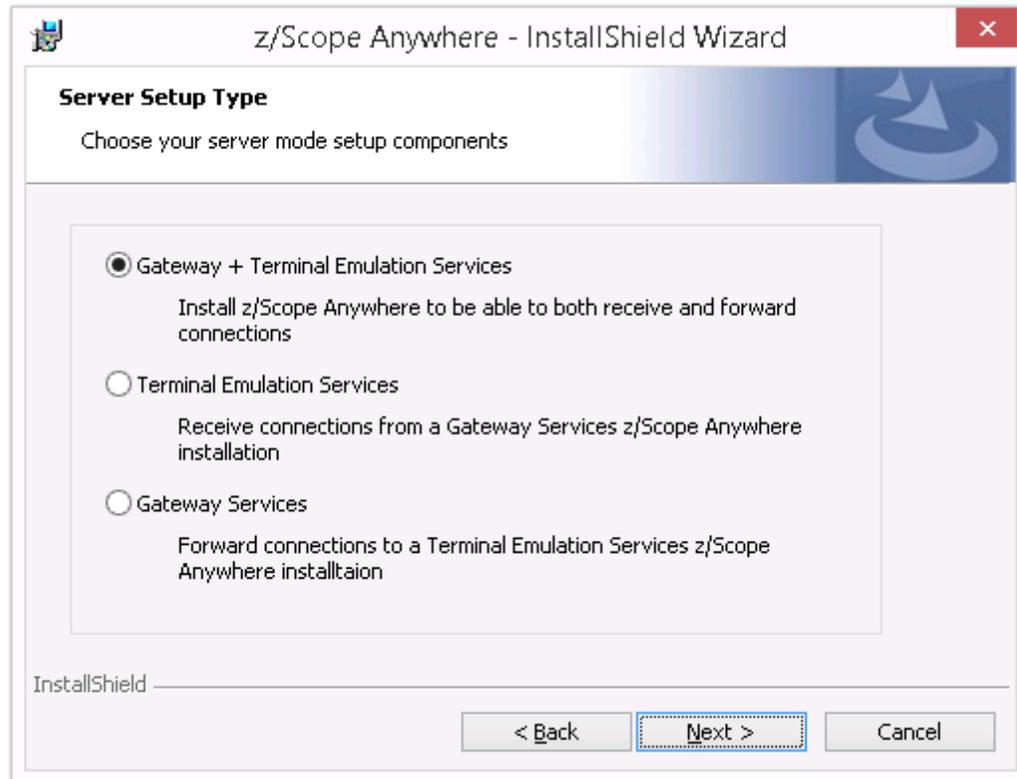
Designed for serving the current desktop user only. If you choose this mode, z/Scope Anywhere will be installed as a standalone application. On this mode, there will be only one personal preference corresponding to the logged user.

Server mode

Designed for serving remote users. If you choose this mode, z/Scope Anywhere will be installed as a Windows Service and will manage remote users accessing their

connections.

z/Scope Anywhere must be installed in two or more servers that participate in the load balancing/faulttolerance scenario.



Gateway Services: Under this role, z/Scope Anywhere Gateway responds to all web-page requests and, when a connection is solicited, it selects the appropriate Server to forward that request to.

In case any established connection fails, or a Server falls down, the Gateway will be able to reconnect to the Server that has the highest availability at the moment.

All the system settings and profiles are centralized and shared between the Servers.

Terminal Emulation Services: Under this role, z/Scope Anywhere only processes forwarded connections. The Server is responsible for establishing and processing the connections assigned by the Gateway.

Before configuring a distributed environment, you should go over some steps:

1. Choose out of the possible [Scaling and Load Balancing Configurations](#) the one that best fits your needs.
2. Plan which machines will run z/Scope Anywhere Terminal Emulation Services, and which will run Gateway Services and DNS Servers.
3. Make sure all the IP addresses are public to the web browsers that will access z/Scope Anywhere Terminal Emulation Services.

Read More:

- [Scaling and Load Balancing Configurations](#)

- [Configuring a Load Balancing Scenario](#)

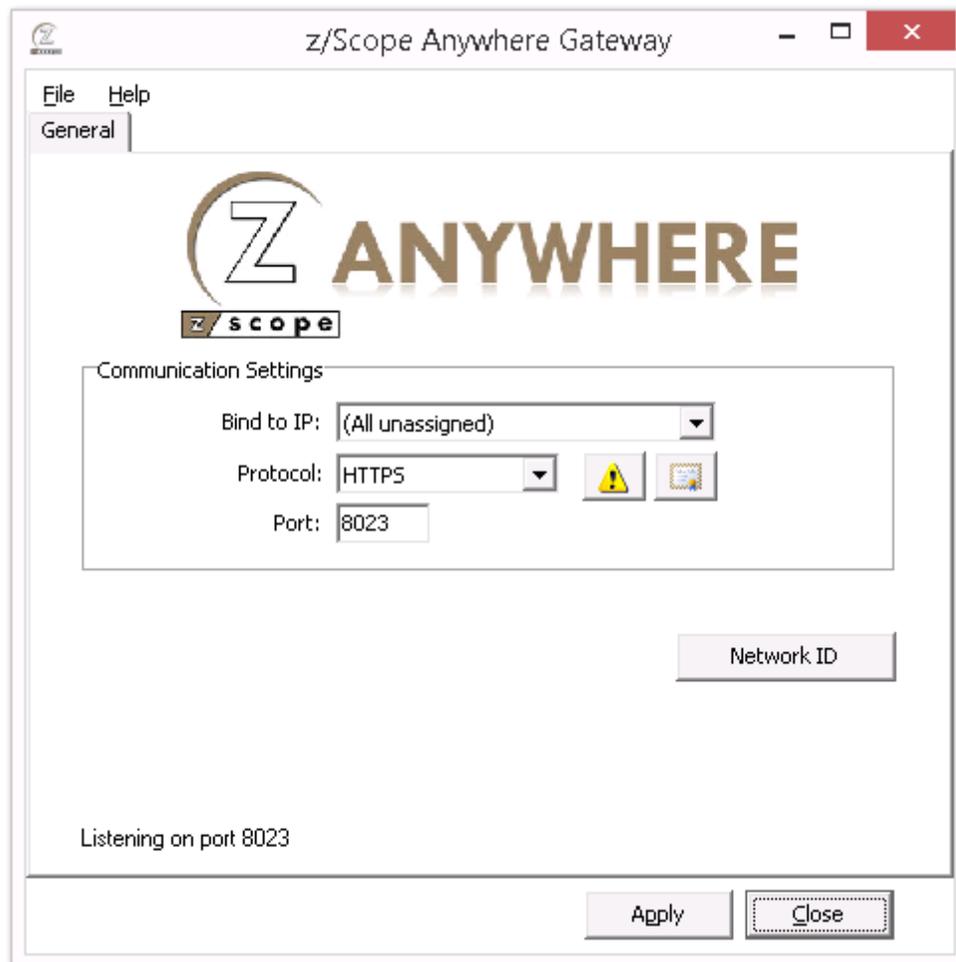
8.3 Configuring a Load Balancing Scenario

In order to configure a load balancing scenario, you need at least one Gateway installation and two Server installations.

Configuring the Gateway

Under this role, z/Scope Anywhere Gateway responds to all web-page requests and, when a connection is solicited, it selects the appropriate Server to forward that request to.

To configure the Gateway, open the Gateway Manager. Set the IP and port where the Gateway will run. If you only have one gateway, this is where the users will connect to. If you use more than one Gateway in your architecture, you will use this IP in the DNS server you set up to distribute the connection between the Gateways. Also, set the Network ID. All the Gateway and Server installations involved in a Load Balancing architecture share the same network ID.



Configuring the Server

Under this role, z/Scope Anywhere only processes forwarded connections. The Server is responsible for establishing and processing the connections assigned by the Gateway.

To configure the Server, open z/Scope Anywhere Configuration Manager and go to the 'Communication' tab.

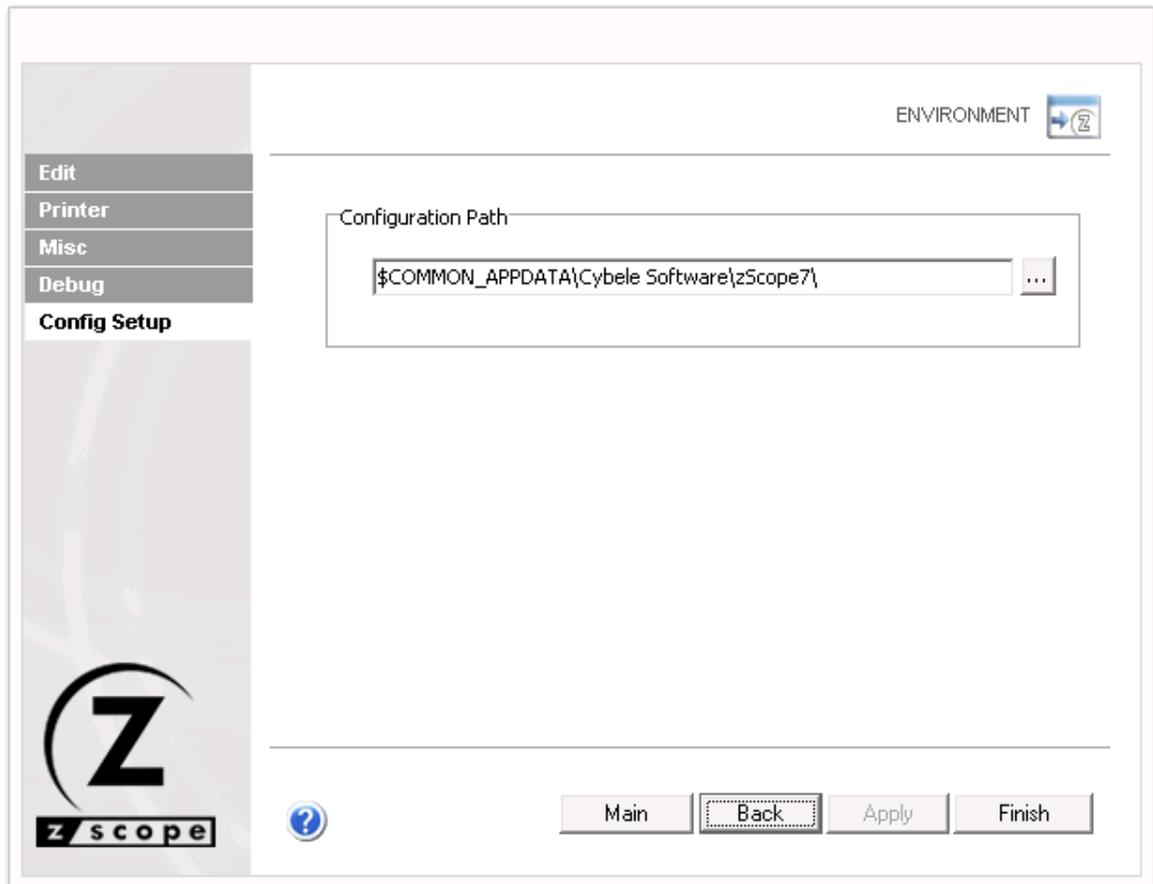
The screenshot shows the 'SERVER SETTINGS' dialog box in the z/Scope Anywhere Configuration Manager. The 'Communication' tab is selected in the left-hand navigation pane. The main area contains the following elements:

- Network ID:** A text input field.
- Gateway list:** A table with one column labeled 'URL'. The table is currently empty.
- Startup processes:** A numeric input field with the value '4'.
- Processes in cache:** A numeric input field with the value '1'.
- Max users per process:** A numeric input field with the value '4'.
- Buttons:** 'Add' and 'Remove' buttons are positioned to the right of the numeric input fields. At the bottom of the dialog are 'Main', 'Back', 'Apply', and 'Finish' buttons.

The z/Scope logo is visible in the bottom-left corner of the dialog.

Press the 'Add' button to add a gateway to the Gateway List. This means that now this server's resources can be accessed through the listed gateways. Make sure that the Network ID is the same for all the gateways and servers involved in this load balancing architecture.

Then, go to the 'Config Setup' tab in the 'Environment' settings:



Set the 'Configuration Path' field in a network location that you can access from the other Server installations.

Once you share the configuration path, all the settings will be shared with other z/Scope Anywhere installations. Make sure you modify the settings from one location at a time, as all changes will be reflected in the other installations.

Also, make sure all the Gateways' IPs are public to the locations that will access z/Scope Anywhere through a web browser.

Read More:

- [The Gateway Manager](#)
- [Scaling and Load Balancing Configurations](#)
- [Installing Components](#)

9 Appendix A - Character Conversion Tables

Z/Scope is shipped with a large list of EBCDIC to ASCII internal conversion tables. It also allows you to use user-generated external conversion tables.

For more information on how to create and apply your own character conversion tables, see the following sections:

- [Internal Conversion Tables](#)
- [Using an external Character Table](#)

Related Topics

- [Selecting a different Character Table](#)

9.1 Internal Conversion Tables

The following table lists the internal ASCII/EBCDIC conversion tables included in z/Scope:

Country	Code Page
Albania	CP500
Arabic Countries	CP420
Australia	CP037
Austria Euro	CP273
Austria	CP1141
Belarus Euro	CP1154
Belarus	CP1025
Belarus/EEUU	CP037
Belgium Euro	CP1148
Belgium	CP500
Belgium	CP037
Bosnia/Herzegovina	CP870
Brazil Euro	CP1140
Brazil	CP037
Bulgaria Euro	CP1154
Bulgaria	CP1125
Canada Euro	CP1140
Canada	CP037
Canada	CP1047
Croatia Euro	CP1153
Croatia	CP870
Czech Euro	CP1153
Czech	CP870
Denmark Euro	CP1142
Denmark	CP227
Estonia Euro	CP1157
Estonia	CP1122
Estonia	CP037
Finland Euro	CP1143
Finland	CP278
France Euro	CP1143
France	CP297
Germany Euro	CP1141
Germany	CP273
Greece Euro	CP874
Greece	CP423
Greece	CP875
Hebrew	CP424
Hungary euro	CP1153
Hungary	CP870

International	CP850
Iceland Euro	CP1149
Iceland	CP871
Italy Euro	CP1144
Italy	CP280
Latin America Euro	CP1145
Latin America	CP284
Latvia Euro	CP1156
Latvia	CP1112
Latvia	CP037
Lithuania Euro	CP1156
Lithuania	CP1112
Lithuania	CP037
Macedonia Euro	CP1154
Macedonia	CP1025
Multinational Euro	CP1148
Multinational ISO Euro	CP924
Multinational	CP500
Netherlands Euro	CP1140
Netherlands	CP037
Norway Euro	CP1142
Norway	CP277
Poland Euro	CP1153
Poland	CP870
Portugal Euro	CP1140
Portugal	CP037
Romania Euro	CP1153
Romania	CP870
Russian Euro	CP1154
Russian	CP1025
Serbia Cyrillic Euro	CP1154
Serbia Latin Euro	CP1153
Serbia/Montenegro	CP1025
Slovenia Euro	CP1153
Slovenia	CP870
Slovakia Euro	CP1153
Slovakia	CP870
Spain Euro	CP1145
Spain	CP284
Sweden Euro	CP1143
Sweden	CP287
Switzerland Euro	CP1148
Switzerland	CP500
Turkey Euro	CP1155
Turkey	CP1026
Ukraine Euro	CP1158
Ukraine	CP1123

Ukraine/EEUU	CP037
United Kingdom Euro	CP1146
United Kingdom	CP285
United States	CP037
United States	CP037/2
United States	CP1047
United States Euro	CP1140
Vietnamese Euro	CP1164
Vietnamese	CP1130
Vietnamese/US	CP037

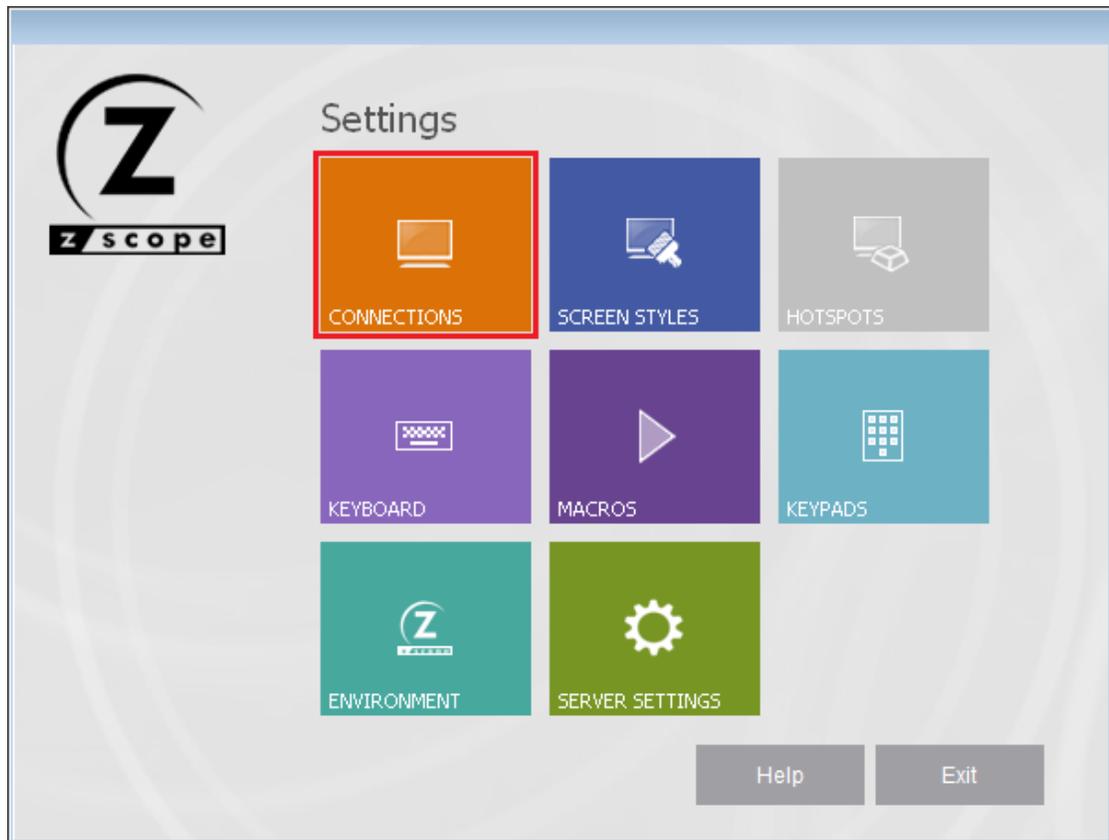
Read more:

- [Using an external Character Table](#)

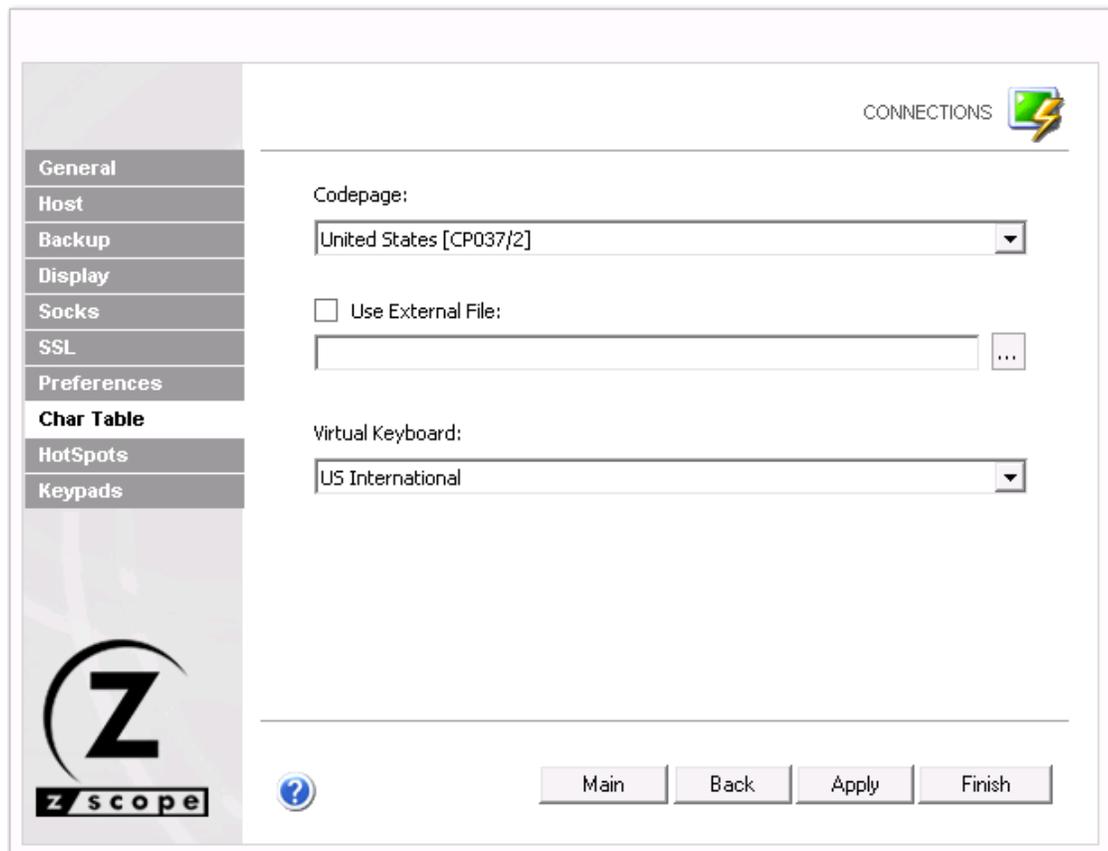
9.2 Using an External Character Table

After saving your own character table to a file, you can load it from within any connection. To do this, follow these steps:

1. Go to the 'Settings' dialog and click on the 'Connections' icon.



2. Select the 'Char Table' tab.
3. Select the 'Use external file' option and type the full path of the (.ebc) file to use.



4. Click on 'Finish'.

The next time you connect, the specified external conversion table will be loaded for the selected connection.

Read more:

- [Internal Conversion Tables](#)

10 Appendix B - Regular Expressions

Regular Expressions can be considered a programming language that was specifically designed for string processing. Its main purpose is to locate patterns of substrings within a larger string, according to relative position, context, case and many other attributes.

To achieve this, the Regular Expressions language recognizes a set of special characters that can be compared in functionality to the wildcard characters * and ? in the DOS environment. The language employs many of these special characters to provide endless possibilities when searching for a certain pattern within a string. There's also a system for grouping parts of substrings and intermediate results during a search operation.

z/Scope takes advantage of the power and simplicity of the Regular Expressions language for defining Hotspots, one of z/Scope's key features. The creation of a Hotspot requires the user to specify the criteria that a text string in the emulation display must fulfill in order to be recognized and respond to mouse clicks. See [Creating/Editing a Hotspot](#).

Most letters and characters will simply match themselves. For example, the regular expression "engine" will match the string "engine" exactly. However, there are some special characters (usually called metacharacters) that do not match themselves. Instead, they are used to define rules and patterns that will be looked for when analyzing the strings.

Here's a comprehensive list of all available metacharacters:

Character	Description	Example
^	Matches the position at the beginning of the string.	^B matches "B" but only if it is the first character in the string.
\$	Matches the position at the end of the string.	\$p matches "p" but only if it is the last character in the string.
.	Matches any single character.	le. matches "leg" and "let".
+	Matches the preceding character 1 or more times.	ca+t matches "cat" and "caat" but not "ct".
*	Matches the preceding character 0 or more times.	ca*t matches "ct", "cat", "caat" and so on.
?	Matches the preceding character 0 or 1 times.	si?t matches "st" and "sit" only.
[xyz]	Matches any one of the enclosed characters (character set).	[gdp]ot matches the "got", "dot" and "pot".
[^xyz]	Matches any character not enclosed (complementary set).	[^aeiou] matches any character that is not a vocal.
[x y]	Matches either x or y.	wom[a e]n matches either "woman" or "women".
[a-z]	Matches any character in the specified range (character range).	[a-z] matches any lowercase letter of the alphabet.

[^a-z]	Matches any character not in the specified range (complementary range).	[^a-z] matches any character that is not in the alphabet.
\b	Matches a word boundary (the position between a word and a space).	a\b matches the "a" in "general" but not the "a" in "fall".
\B	Matches a nonword boundary.	a\B matches the "a" in "fall" but not the "a" in "general".
\s	Matches any white space character including space, tab, form-feed, and so on.	
\S	Matches any non-white space character.	
\d	Matches a digit character. Equivalent to [0-9].	
\D	Matches any non-digit character. Equivalent to [^0-9].	
\w	Matches any word character including underscore. Equivalent to [A-Za-z0-9_].	
\W	Matches any non-word character. Equivalent to [^A-Za-z0-9_].	
{n}	Matches a character exactly <i>n</i> times.	p{2} does not match the "p" in "peach" but matches the two p's in "apple".
{n,}	Matches a character at least <i>n</i> times.	p{2,} does not match the "p" in "peach" and matches all the p's in "apppp".
{n,m}	Matches a character at least <i>n</i> and at most <i>m</i> times.	p{1,3} matches the first three p's in "appppp".

If you need to search for one of the characters that are reserved as metacharacters, you can do so by placing a backslash (\) before the desired character. In this way, for example, \? will actually match "?" instead of matching the position at the end of the string.

Related Topics

- [Creating/Editing a Hotspot](#)

11 Appendix C - Google Account Integration

The z/Scope Anywhere authentication can be done through an integration with the google accounts.

This integration requires some previous set ups.

Requirements

1. There has to be a google account to set up the integration in the Google Web Site. This Account is used as a security assurance to the other users who will share their personal account data.
2. The users who will authenticate using this method must also have a previous google account.
3. The application has to be installed as "Server Mode".

Setting up the integration

1. [Create a Client ID for web applications](#)
2. Enable the Integration through the z/Scope Anywhere "Configuration Manager" Server icon, on the [OAuth/2 tab](#)
3. Enter the e-mails that will be authenticate against z/Scope on the Configuration Manager Server icon. These set up will be available under the tab [OAuth/2 tab Users](#)
4. Associate the Active Directory Users/Groups with the authorized e-mails also on the the Configuration Manager Server icon, under the tab [OAuth/2 tab Users](#)

How to use it

1. Open a web browser and log into google with one of the authorized accounts (step 4 above).
2. Open a new tab in the same browser instance and access z/Scope Anywhere application from this tab, using the configured URI (e.g.: <https://zScopeAnywhere/google>).
3. The application will automatically recognize you, but before connecting to z/Scope Anywhere, it will ask you for permission to access your account information.
4. Press the Allow Access button, and you will be automatically authenticated against z/Scope Anywhere and redirected to the [Start Page](#).

Related Topics

- [OAuth/2 Server Settings tab](#)
- [OAuth/2 Server Users Settings tab](#)

11.1 Google Client ID for web applications

Before configuring z/Scope Anywhere to work integrated with google accounts, you have to create a Google Client ID for web applications.

Remember that a Google Client ID has to be created under an existing Google account. We recommend you to use a google account that identifies the system administration, because this account will be shown to users as the responsible for their account personal data that will be accessed from google.

Follow the next steps to create your own "Google Client ID for web applications".

1. Log into google with the admin account you will use to configure the integration.
2. Open the URL <http://code.google.com/apis/console> on the same browser instance.
3. Click on the "Create Project button". This step will only happens if your google account has never configured a Google Client ID before. Otherwise it will jump into the next step.

[Mail](#) [Calendar](#) [Documents](#) [Sites](#) [Groups](#) [Contacts](#) [More ▾](#) [admin@cybelesoft.com ▾](#) | [Settings ▾](#) | [Help](#) | [Sign out](#)

Google apis

Start using the Google APIs console
to manage your API usage



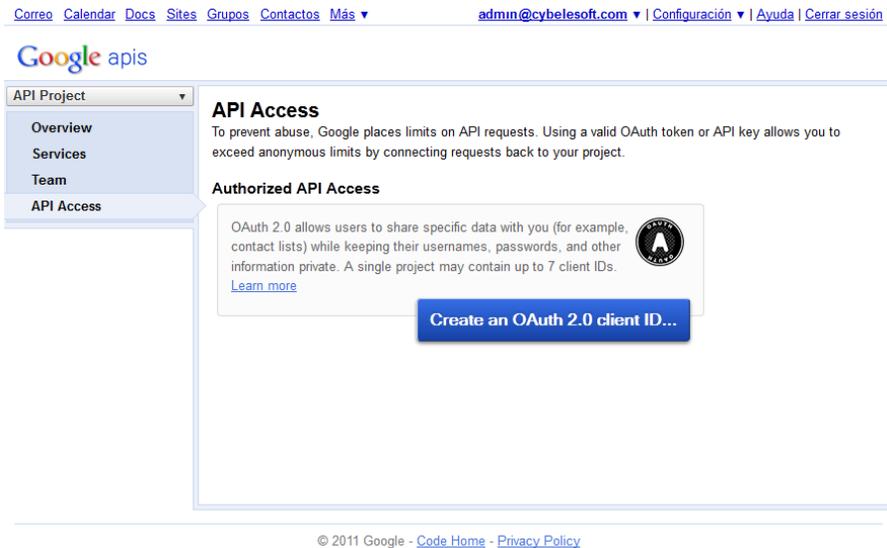
Creating an **APIs project** will let you:

- Use Google APIs **beyond anonymous limits**.
- **Monitor** API usage and **control** API access.
- **Share** API management with a team.

[Create project...](#)

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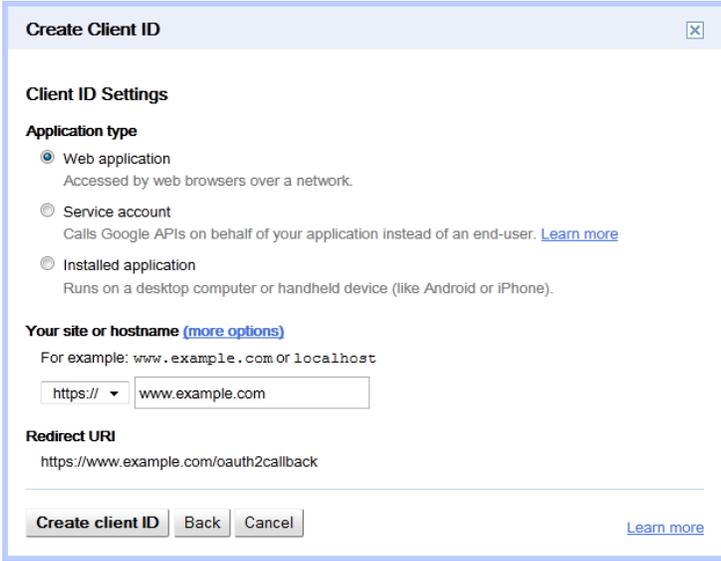
4. Click on the left menu option: "API Access".
5. Click on the "Create an OAuth 2.0 client ID..." middle button.



6. Fill the Branding Information on the "Create Client ID" screen:

- a) On the "Product name" field enter a name that will identify the application and the company to the users. This information is shown when the users are asked to confirm their data sharing with this entity/product.
- b) The Google account does not have to be changed.
- c) You can also enter a logo image to be shown to the users on the registration moment (the same moment as the Product name will be shown).

7. Set the Application Type option to "Web application" and enter the external server URL. This URL should be accessible from the browser that users will access the application from.



Create Client ID

Client ID Settings

Application type

- Web application
Accessed by web browsers over a network.
- Service account
Calls Google APIs on behalf of your application instead of an end-user. [Learn more](#)
- Installed application
Runs on a desktop computer or handheld device (like Android or iPhone).

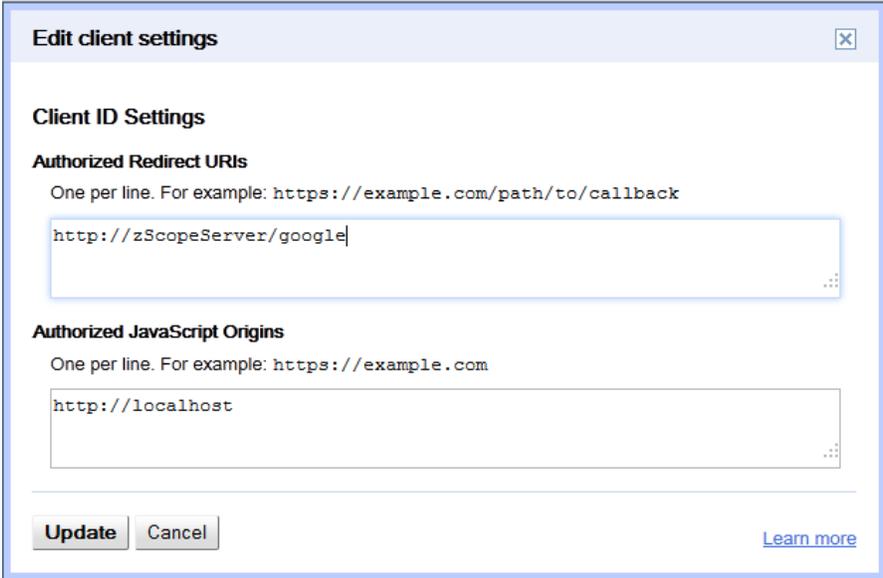
Your site or hostname ([more options](#))
For example: `www.example.com` or `localhost`

`https://`

Redirect URI
`https://www.example.com/oauth2callback`

[Learn more](#)

8. Once the account is created, click on the "Edit Settings" button and change the URI to `http://zScopeServer:port/google` like the example below and click on "Update".



Edit client settings

Client ID Settings

Authorized Redirect URIs
One per line. For example: `https://example.com/path/to/callback`

`http://zScopeServer/google`

Authorized JavaScript Origins
One per line. For example: `https://example.com`

`http://localhost`

[Learn more](#)

9. Copy the "Client ID" and "Client Secret" values to posterior use on z/Scope Anywhere. Find these fields information surrounded with a red square, on the image below:

[Correo](#) [Calendar](#) [Docs](#) [Sites](#) [Grupos](#) [Contactos](#) [Más](#) ▾[admin@cybelesoft.com](#) ▾ | [Configuración](#) ▾ | [Ayuda](#) | [Cerrar sesión](#)

API Project ▾

Overview

Services

Team

API Access

API Access

To prevent abuse, Google places limits on API requests. Using a valid OAuth token or API key allows you to exceed anonymous limits by connecting requests back to your project.

Authorized API Access

OAuth 2.0 allows users to share specific data with you (for example, contact lists) while keeping their usernames, passwords, and other information private. A single project may contain up to 7 client IDs. [Learn more](#)

Branding information

The following information is shown to users whenever you request access to their private data.

Product name: z/ScopeAnywhere

Google account: kdesouza@cybelesoft.com

[Edit branding information...](#)

Client ID for web applications

Client ID: 964622882302.apps.googleusercontent.com

Email address: 964622882302@developer.gserviceaccount.com

Client secret: c7YssnfaKgCqGiUbjzuWx4LX

Redirect URIs: http://localhost/oauth2callback

JavaScript origins: http://localhost

[Edit settings...](#)[Reset client secret...](#)[Create another client ID...](#)

13 Appendix E - Programming Reference for Macros

When a macro is created through z/Scope Anywhere interface, it will be stored in a JavaScript file that can be placed in two different locations, depending on the installation mode used:

Desktop Mode

On this installation mode, the macro will be stored on:

`C:\Users\[UserName]\AppData\Roaming\Cybele Software\zScope7`

1. Inside this directory there will be one folder for each existing connection, and their name will follow a format that looks like this: "EB088A84-C46D-4882-90B3-15BDOA6A26DOC"
2. Open these connections folders and look for a file that has the same name as the macro you are looking for
3. If the macro's name were "Navigation" for example, the file name would be "Navigation.js".

Server Mode

When the application is installed as server mode, the macros will be stored on:

`C:\ProgramData\Cybele Software\zScope7\[UserName]`

1. Inside this directory there will be subdirectories for each existing connection. Their name stands for the connection ID and will have a format that looks like this: "EB088A84-C46D-4882-90B3-15BDOA6A26DOC"
2. Open each one of these connections folders and look for a file that has the same name as the macro you are looking for.
3. If the macro's name were "Navigation" for example, the file name would be "Navigation.js".

 If you have the server mode you can make the macros Public by moving their containing connection folder from the user folder to C:\ProgramData\Cybele Software\zScope7\

The macro's execution sequence can be manually modified as long as the person who will do it is familiar with the JavaScript language and understands the [macro structure](#), as well as the [methods and properties](#) used to communicate with the emulation screen.

Related Topics

- [Macro feature](#)

- [Macro Script File Structure](#)
- [Methods and Properties](#)
- [Integrating a login macro](#)

13.1 Macro Script File Structure

The Macro script file has a JavaScript function that allows the interaction with the emulation screen.

The script is structured in the three main sections:

1. Obtain the Display object:

The command `getDisplay()` will return an object `display`, the resource that will allow interaction with the emulation screen.

2. Define the macro steps:

In this section there should be a function for each step to be executed by the macro. A step generally ends with an AID key command sent to the host.

3. Set the order for the steps to be executed:

At last, it is necessary to set the sequence in which all the steps will be executed. The `display.addNavigationPath` command should be used to complete this section.

Macro script example

```
(function () {  
  
    // Section 1- Obtains the object to interact with the emulation  
    var display = getDisplay();  
  
    // Section 2 - Macro execution steps  
    step1 = function () {  
        display.type("USERX");  
        display.setField("R4C47"  
                        , "kljhfhvjkjgiuihkljhhmkjfhldskfjdklfasldfjfdkfa  
                          jsdf=");  
        display.cursorPos = 295;  
        display.pressAndWait("ENTER");  
    },  
  
    step2 = function () {  
        display.cursorPos = 561;  
        display.pressAndWait("ENTER");  
    },  
  
    step3 = function () {  
        display.waitForField("R20C7", 5000);  
        display.type("wrksplf");  
        display.cursorPos = 1534;  
        display.pressAndWait("ENTER");  
    },  
  
    step4 = function () {
```

```
display.type("4");
display.setField("R11C3", "4");
display.cursorPos = 883;
display.pressAndWait("ENTER");
},

step5 = function () {
    display.cursorPos = 1;
    display.pressAndWait("ENTER");
},

step6 = function () {
    display.setField("R21C7", "go main");
    display.cursorPos = 1614;
    display.pressAndWait("ENTER");
},

step7 = function () {
    display.type("90");
    display.cursorPos = 1529;
    display.pressAndWait("ENTER");
}

// Section 3 - Order in which the macro steps will be executed
display.addNavigationPath(this, null, null, step1);
display.addNavigationPath(this, step1, null, step2);
display.addNavigationPath(this, step2, null, step3);
display.addNavigationPath(this, step3, null, step4);
display.addNavigationPath(this, step4, null, step5);
display.addNavigationPath(this, step5, null, step6);
display.addNavigationPath(this, step6, null, step7);

})();
```

You can also see more examples, by creating macros from the z/Scope Anywhere interface and then opening the generated script files to see how they were written by the application ([here](#) you can find out where they are going to be placed by z/Scope Anywhere).

Related Topics

- [Creating Macros](#)
- [Macro Methods and Properties](#)

13.2 Methods and Properties

Available Macro's Properties and Methods:

Property

- [cursorPos](#)

Methods

- [type](#)
- [typeV](#)
- [setField](#)
- [setFieldV](#)
- [pressAndWait](#)
- [waitForField](#)
- [waitForNewScreen](#)
- [addNavigationPath](#)

13.2.1 cursorPos

The cursorPos property sets the cursor to other position of the emulation screen.

JavaScript code

```
display.cursorPos = position;
```

Assigned value

position : Integer

Read more:

- [Macro Script File Structure](#)
- [Programming Reference for Macros - type](#)
- [Programming Reference for Macros - typeV](#)
- [Programming Reference for Macros - setField](#)
- [Programming Reference for Macros - setFieldV](#)
- [Programming Reference for Macros - pressAndWait](#)
- [Programming Reference for Macros - waitForField](#)
- [Programming Reference for Macros - waitForNewScreen](#)
- [Programming Reference for Macros - addNavigationPath](#)

13.2.2 type

The `type` method can be used to send key sequences to the mainframe, starting from the current cursor position.

JavaScript code

```
display.type(keys);
```

Parameters

keys : String

By using special codes you can send several special keys. These codes consist of an escape character ("@") and a mnemonic code that corresponds to the supported function.

Type method can also make entered data to be sent along with an AID key (Attention Identifier key), avoiding the use of Press method.

The following table lists the functions keys and its corresponding codes.

Code Value	Meaning
@A@Q	Attention
@<	Backspace
@B	BackTab (Left Tab)
@C	Clear
@E	Enter
@F	Erase Field
@A@Q	Sys Request
@T	Tab (Right Tab)
@x	PA1
@y	PA2
@z	PA3
@1	PF1
@2	PF2
@3	PF3
@4	PF4
@5	PF5
@6	PF6
@7	PF7
@8	PF8
@9	PF9
@a	PF10

@b	PF11
@c	PF12
@d	PF13
@e	PF14
@f	PF15
@g	PF16
@h	PF17
@i	PF18

Read more:

- [Macro Script File Structure](#)
- [Programming Reference for Macros - cursorPos](#)
- [Programming Reference for Macros - typeV](#)
- [Programming Reference for Macros - setField](#)
- [Programming Reference for Macros - setFieldV](#)
- [Programming Reference for Macros - pressAndWait](#)
- [Programming Reference for Macros - waitForField](#)
- [Programming Reference for Macros - waitForNewScreen](#)
- [Programming Reference for Macros - addNavigationPath](#)

13.2.3 typeV

The `typeV` indicates a variable for z/Scope Anywhere to get the value from and send it to the mainframe, starting from the current cursor position.

JavaScript code

```
display.typeV(variableName);
```

Parameters

`variableName` : String

Read more:

- [Macro Script File Structure](#)
- [Programming Reference for Macros - cursorPos](#)
- [Programming Reference for Macros - type](#)
- [Programming Reference for Macros - setField](#)
- [Programming Reference for Macros - setFieldV](#)
- [Programming Reference for Macros - pressAndWait](#)
- [Programming Reference for Macros - waitForField](#)
- [Programming Reference for Macros - waitForNewScreen](#)
- [Programming Reference for Macros - addNavigationPath](#)

13.2.4 setField

The `setField` command will write a text into the indicated `fieldName`. If the text is encrypted, it will be decrypted by z/Scope Anywhere.

JavaScript code

```
display.setField(fieldName,text);
```

Parameters

`fieldName` : String
`text` : String

Read more:

- [Macro Script File Structure](#)
- [Programming Reference for Macros - cursorPos](#)
- [Programming Reference for Macros - type](#)
- [Programming Reference for Macros - typeV](#)
- [Programming Reference for Macros - setFieldV](#)
- [Programming Reference for Macros - pressAndWait](#)
- [Programming Reference for Macros - waitForField](#)
- [Programming Reference for Macros - waitForNewScreen](#)
- [Programming Reference for Macros - addNavigationPath](#)

13.2.5 setFieldV

The `setFieldV` command indicates a variable (that has had its value assigned previously) for z/Scope Anywhere to get the value from and write it into the indicated `fieldName`.

JavaScript code

```
display.setFieldV(fieldName, variableName);
```

Parameters

`fieldName` : String
`variableName` : String

Read more:

- [Macro Script File Structure](#)
- [Programming Reference for Macros - cursorPos](#)
- [Programming Reference for Macros - type](#)
- [Programming Reference for Macros - typeV](#)
- [Programming Reference for Macros - setField](#)
- [Programming Reference for Macros - pressAndWait](#)
- [Programming Reference for Macros - waitForField](#)
- [Programming Reference for Macros - waitForNewScreen](#)
- [Programming Reference for Macros - addNavigationPath](#)

13.2.6 pressAndWait

In a real terminal, the typed data is sent to the mainframe upon pressing one of the keys known as Attention Identifier keys (AID). These keys act as function keys that are sent along with the typed data. In z/Scope Anywhere you can use the PressAndWait method to simulate this action.

The pressAndWait method sends an Attention Identifier Key along with the modified fields, but it blocks the code execution waiting until the system gets unlocked. Modified fields can be input fields (unprotected) or sometimes protected fields having the property Modified set to True.

JavaScript code

```
display.pressAndWait(aidKey);
```

Parameters

aidKey : String

Read more:

- [Macro Script File Structure](#)
- [Programming Reference for Macros - cursorPos](#)
- [Programming Reference for Macros - type](#)
- [Programming Reference for Macros - typeV](#)
- [Programming Reference for Macros - setField](#)
- [Programming Reference for Macros - setFieldV](#)
- [Programming Reference for Macros - waitForField](#)
- [Programming Reference for Macros - waitForNewScreen](#)
- [Programming Reference for Macros - addNavigationPath](#)

13.2.7 waitForField

The `waitForField` command waits for a screen containing the specified field, blocking the code execution until the event is raised or the operation times out.

JavaScript code

```
display.waitForField(fieldName, timeout);
```

Parameters

`fieldName` : String
`timeout` : Integer

Read more:

- [Macro Script File Structure](#)
- [Programming Reference for Macros - cursorPos](#)
- [Programming Reference for Macros - type](#)
- [Programming Reference for Macros - typeV](#)
- [Programming Reference for Macros - setField](#)
- [Programming Reference for Macros - setFieldV](#)
- [Programming Reference for Macros - pressAndWait](#)
- [Programming Reference for Macros - waitForNewScreen](#)
- [Programming Reference for Macros - addNavigationPath](#)

13.2.8 waitForNewScreen

The `waitForNewScreen` command waits until a new screen arrives, blocking the code execution until the event is raised or the operation times out. In case the operation succeeds, the success function will be executed in case the operation fails or times out, the error function will be executed.

JavaScript code

```
display.waitForNewScreen(timeout, success, error);
```

Parameters

`timeout` : Integer (milliseconds)
`success` : JavaScript function
`error` : JavaScript function

Read more:

- [Macro Script File Structure](#)
- [Programming Reference for Macros - cursorPos](#)
- [Programming Reference for Macros - type](#)
- [Programming Reference for Macros - typeV](#)
- [Programming Reference for Macros - setField](#)
- [Programming Reference for Macros - setFieldV](#)
- [Programming Reference for Macros - pressAndWait](#)
- [Programming Reference for Macros - waitForField](#)
- [Programming Reference for Macros - addNavigationPath](#)

13.2.9 addNavigationPath

The `addNavigationPath` command defines the sequence of steps to be executed. The command has to be called once for each step (except the last one), letting the application know what step should follow one another.

JavaScript code

```
display.addNavigationPath(this, stepFrom, null, stepTo);
```

Parameters

`stepFrom` : JavaScript function
`stepTo` : JavaScript function

Read more:

- [Macro Script File Structure](#)
- [Programming Reference for Macros - cursorPos](#)
- [Programming Reference for Macros - type](#)
- [Programming Reference for Macros - typeV](#)
- [Programming Reference for Macros - setField](#)
- [Programming Reference for Macros - setFieldV](#)
- [Programming Reference for Macros - pressAndWait](#)
- [Programming Reference for Macros - waitForField](#)
- [Programming Reference for Macros - waitForNewScreen](#)

14 Appendix F - External Authentication

Z/Scope Anywhere incorporates a mechanism to validate users in a corporate environment so that the user will not need to validate itself every time he enters the application or connects to a host. These mechanism was designed to be used with the [Server Installation mode](#).

Authenticating against z/Scope Anywhere from external applications:

Every time you call z/Scope Anywhere, you can send within its URL additional information regarding the authentication, inside a [query string](#). Find out how to build a [query string](#) in order to authenticate against z/Scope Anywhere Server as well as authenticate against the connection host.

Using external data on macros:

The [Integrating a login macro](#) section is a step-by-step example on how to send the host credentials from an external application, as well as creating and configuring a macro that automates the host login.

Encrypting the query string:

Learn how to encrypt the information sent on the query string using a [Diffie Hellman Key Exchange](#) mechanism, provided by z/Scope Anywhere.

Demo:

With the [IIS asp.net demo](#) application you can learn how to: 1) authenticate against z/Scope Anywhere Server, 2) Open a determined connection, 3) Send the host credentials; and 4) Encrypt all the query string data with the [Diffie Hellman Key Exchange](#) method.

Related Topics

[ApiKey](#)
[Diffie Hellman Key Exchange](#)
[Building the Query String](#)
[Integrating a login macro](#)
[Demo](#)

14.1 Apikey

The ApiKey is a secret value, known only by z/Scope Anywhere and the corporate application that connects to it.

By sending the apikey, the corporate application is indicating that the user is valid and s/he is logged on the corporate network properly, so that the password would not be required. This method is useful for applications that do not keep the users passwords and only authenticate its users against windows or a network Active Directory Server.

The ApiKey is a configurable value. It is set in the z/Scope Anywhere ini configuration file. The location of this file depends on the Windows version z/Scope Anywhere is running at:

Windows 2003: C:\Documents and Settings\All Users\Application Data\Cybele Software\ThinZS\ThinZS.ini

Windows 2008: C:\ProgramData\Cybele Software\ThinZS\ThinZS.ini

Inside the ini file, the apikey information should be append following format below:

[API]

Key = 3884F316-3429-49A0-9282-AF0C52B62107

You should use a personal value for the apikey setting, as long as it follows the pattern shown above and matches the value send by the [external application that will authenticate](#) against z/Scope Anywhere Server.

Do not use this apikey value shown above, once this is a public document accessible to everyone.

If the ApiKey does not exist in the configuration file, the server creates a random ApiKey value the first time it starts.

[API]

Key = 3884F316-3429-49A0-9282-AF0C52B62107

IPList=192.168.0.1;192.168.0.2

Use the IPList parameter to limit to a list the ip addresses authorized to make calls using this apikey. In the absence of the IPList parameter, all uncategorized ips will be allowed access through this Api Key.

Read more:

- [Diffie Hellman Key Exchange](#)
- [Building the Query String](#)
- [Using z/Scope Anywhere In-Memory Dictionary](#)
- [Integrating a Login Macro](#)
- [C# External Authentication Demo](#)
- [Web Authentication Provider](#)

14.2 Diffie Hellman Key Exchange

"Diffie–Hellman key exchange is a specific method of exchanging cryptographic keys. It is one of the earliest practical examples of key exchange implemented within the field of cryptography. The Diffie–Hellman key exchange method allows two parties that have no prior knowledge of each other to jointly establish a shared secret key over an insecure communications channel. This key can then be used to encrypt subsequent communications using a symmetric key cipher. ^[wikipedia]"

Using Cybele's ThinAPI library to perform a Diffie Hellman key exchange:

1. Add the Cybele.ThinAPI.dll to your application. It is available on the [Demo](#) application under the bin directory.
2. Create an object instance of the [DHCypher](#) class.
3. Call the Init method, sending the server address as argument. This method is responsible to negotiate the key with z/Scope Anywhere Server.
4. Call the EncodeStr method passing the data to be encrypted as argument of the method.

c# example:

```
using Cybele.ThinAPI;

...

DHCypher myDHCypher = new DHCypher();
myDHCypher.Init("http://127.0.0.1:8023");
authInfo = HttpUtility.UrlEncode(myDHCypher.EncodeStr(authInfo));

...
```

Sending encrypted data:

After performing the Diffie Hellman key exchange, the external application may send the encrypted data to z/Scope Anywhere Server proceeding it by an * symbol.

c# example:

```
using Cybele.ThinAPI;

...

authInfo = "*" + authInfo;

...
```

The authentication information is then encrypted to be send to z/Scope Anywhere Server within the URL query string:

http://127.0.0.1:8023/asp/? + authInfo

Read more:

- [Apikey](#)
- [Building the Query String](#)
- [Using z/Scope Anywhere In-Memory Dictionary](#)
- [Integrating a Login Macro](#)
- [C# External Authentication Demo](#)
- [Web Authentication Provider](#)

14.3 Building the Query String

The URL to be called in order to authenticate against z/Scope Anywhere externally should follow the format below:

http://127.0.0.1:8023/asp/?* <queryString>

The query string may contain all the information related to the server credentials, connection to be started, host credentials and any other information you want to use within the connection macros.

Follow the topics below and learn how to create the query string in order to perform the two authentication levels (z/Scope Anywhere Server and host) as well as use external data to perform any other automation task through ([macros](#)):

[z/Scope Anywhere Server Authentication:](#)

The authentication against z/Scope Anywhere from external applications can be done using: username and password or username and an [ApiKey](#). In order to authenticate you must send the combination of the `_userid` variable and `_password` or `_apikey` inside the queryString.

1. `_userid=<UserId>&_password=<Password>`
2. `_userid=<UserId>&_apikey=<APIKey>`

Please, make sure the underscore is placed before the userid and password/apikey parameter names.

You have to replace `<UserId>` with the username you want to logon and `<APIKey>` or `<Password>` with the corresponding ApiKey/Password z/Anywhere is expecting. For example, if the server username was "john" and his password "john123", the URL followed by the query string would be:

```
http://127.0.0.1:8023/asp/?_userid=John&_password=John123
```

[Starting a Connection:](#)

If you want to open a particular connection, you can add to the query string the "start" parameter. This parameter works as an "autostart" command. If we wanted to start a connection called "MyConnection", the query string above would become this one:

```
http://127.0.0.1:8023/asp/?  
_userid=John&_password=John123&start=MyConnection
```

[Hiding the connections start panel:](#)

You can make z/Anywhere jump the start panel and go straight to the connection that autostarted by sending the `hsp` parameter = 1. This parameter only makes sense if a Connection will be started automatically.

```
http://127.0.0.1:8023/asp/?
_userid=John&_password=John123&start=MyConnection&_asuser=hostUser&_aspass=
hostPassword&hsp=1
```

Authenticating against the host:

Once a connection is automatically open it is possible to login automatically to the host. To do that you should send the host credentials on the query string and have a [login macro](#) associated the connection [autostart setting](#).

The parameters to authenticate against the host could have any name of your preference, let's suppose you are going to name them `_asuser` and `_aspass`. The query string should look like this:

```
http://127.0.0.1:8023/asp/?
_userid=John&_password=John123&start=MyConnection&_asuser=hostUser&_aspass=
hostPassword
```

Adding other information to be used on the connection macros:

Besides the host username and password, z/Scope Anywhere enables you to send any other parameter within the query string so that you can use them to [program macros](#). The parameters names should have a prefixed underscore and should not match the reserved parameters "userid" and "apikey".

```
_myIntParam=1500&_myStrParam=Hello World&_myBoolParam=true
```

On the [Integration a login macro](#) section you will find an example on how to send parameters within the query string and use them to perform a login automation. The same principles of sending and using external application data covered on the example, can be applied to perform any other macro automation task.

Encrypting the query string information:

Before deploying your application, it is strongly recommended that you encrypt all the exchanged query string data, by using a [Diffie Hellman Key Exchange](#) provided by z/Scope Anywhere.

Read more:

- [Apikey](#)
- [Diffie Hellman Key Exchange](#)
- [Using z/Scope Anywhere In-Memory Dictionary](#)
- [Integrating a Login Macro](#)
- [C# External Authentication Demo](#)
- [Web Authentication Provider](#)

14.4 Using z/Scope Anywhere In-Memory Dictionary

z/Scope Anywhere includes an in-memory dictionary to save name-value pairs that can be accessed from within the application.

In order to save name-value pairs into the internal in-memory dictionary, make an https request as follows:

```
https://z-scope_server_url/var/?_sessionid=...&name1=value1&name2=value2&....
```

In this example, name1 is the variable that corresponds to value1. You can use the "name1", "name2", etc variable names within z/Scope Anywhere and set their values (value1, value2, etc) through the URL depending on where you access from or who is the user.

In order to receive name-value pairs, z/Scope Anywhere requires that you identify through a session id to associate to the name-value pairs using this parameter:

`_sessionid`: a string identifying the session. It will be used as a key to store and further use of the name-value pairs, making them available from different browsers.

These variables will be available in the in-memory dictionary for as long as you determine in the configuration file using the `SessionVar.Timeout` variable. Here is an example configuration file (ThinZS.ini). [Learn more about the configuration file.](#)

```
[API]
Key=F49E5D97-42B3-428E-92FE-237A3E8DB1EA
IPList=192.168.0.1;192.168.0.2
SessionVar.Timeout=30
```

The `SessionVar.Timeout` variable expresses the maximum time allowed in minutes since the last access to a stored variable, after which this variable is cleared.

This means that, in this example, the variable will remain in z/Scope Anywhere's in-memory dictionary for as long as 30 minutes after the last time it is used. When 30 minutes have passed since the last access to the variable, it will be cleared.

Learn how to use these in-memory dictionary name-value pairs in z/Scope Anywhere with a [login macro example](#).

Read more:

- [Apikey](#)
- [Diffie Hellman Key Exchange](#)
- [Building the Query String](#)
- [Integrating a Login Macro](#)
- [C# External Authentication Demo](#)
- [Web Authentication Provider](#)

14.5 Integrating a Login Macro

Let's suppose you need to authenticate a user into a connection host. To do that you need a macro that positions the cursor in the username and password fields and enters the right credentials. Let's suppose our username is "peter" and his password is "peterPass".

You can send these values in the z/Scope Anywhere URL [query string](#) by adding them like this:

```
http://127.0.0.1:8023/asp/?
_userid=...&_apikey=...&start=MyConnection&_asuser=peter&_aspass=peterPass
```

The `_asuser` and `_aspass` values will be available inside the z/Scope Anywhere macros. That way you can use them to authenticate against the connection host. Follow the next steps to learn how to use these values to perform the host authentication:

1. Record the macro:

You can start by [recording a macro](#) that performs the host login.

Find out on the [Programming Reference for Macros](#) how to edit the macro after you've created it.

You will see that the macro code will look like this:

```
(function() {
  var display = getDisplay();
  step1 = function() {
    display.type("peter");
    display.setField("R4C47", "YEgY8gNCpoKU2zX-fky...");
    display.cursorPos = 295;
    display.pressAndWait("ENTER");
  }
  display.addNavigationPath(this, null, null, step1);
})();
```

2. Modify the macro to work with all users:

You know that this macro is now running for the user "peter" only, but you need it to be generalized for all users.

The way to modify this macro to use the variables `"_asuser"` and `"_aspass"` is by replacing the methods `type` and `setField`, as follows:

```
1) display.type("peter") => display.typeV("_asuser")

2) display.setField("R4C47", "YEgY8gNCpoKU2zX-tfky...") =>
display.setFieldV("R4C47", "_aspass")
```

The "v" methods will use the [query string](#) variable values. You can check further documentation regarding the [typeV](#) and [setFieldV](#) methods.

The updated macro should look like this:

```
(function() {  
  var display = getDisplay();  
  step1 = function() {  
    display.typeV("_asuser");  
    display.setFieldV("R4C47", "_aspass");  
    display.cursorPos = 295;  
    display.pressAndWait("ENTER");  
  }  
  display.addNavigationPath(this, null, null, step1);  
})();
```

3. Take the macro to the public directory

All the macros are created by default on the user directory. In order to make the macro available to all users, you have to move it from the user directory to one directory level above. Copy the login macro you have just created:

```
from C:\ProgramData\Cybele Software\zScope7\[UserName] to C:\ProgramData\Cybele  
Software\zScope7\
```

4. Configure the connection to auto start the macro:

If you want the connection to automatically perform the authentication every time it is started, you should set this macro to be [autostarted](#) on the Connection [Preferences](#) [tab](#).

Read more:

- [Apikey](#)
- [Diffie Hellman Key Exchange](#)
- [Building the Query String](#)
- [Using z/Scope Anywhere In-Memory Dictionary](#)
- [C# External Authentication Demo](#)
- [Web Authentication Provider](#)
- [Macro Script File Structure](#)
- [Macro Programming Reference](#)

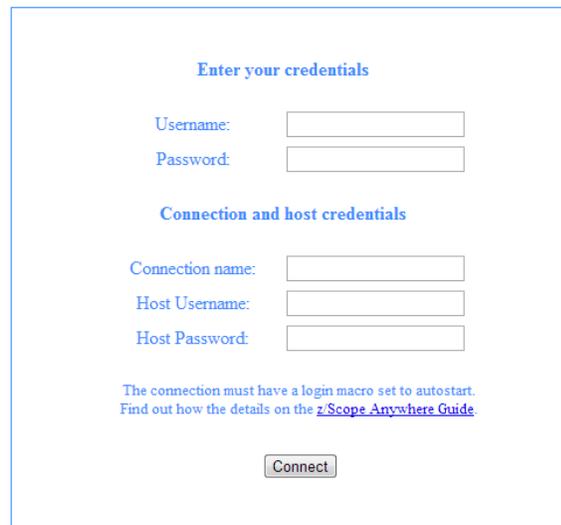
14.6 Demo

This C# asp.net demo is intended to help you learn how to authenticate securely against z/Scope Anywhere Server from an external application.

The demo Logon.aspx page is an authentication form that performs a Windows Logon. This page was designed to show how to authenticate to z/Scope Anywhere externally using username/password or [apikey](#) and having the authentication data encrypted through the [Diffie Hellman Key Exchange method](#).

After authentication against z/Scope Anywhere, the application redirects to the Default.aspx page that has an IFrame pointing to z/Scope Anywhere URL.

[z/Scope Anywhere External Authentication demo](#)



The screenshot shows a web form titled "Enter your credentials" with two input fields for "Username:" and "Password:". Below this is a section titled "Connection and host credentials" with three input fields for "Connection name:", "Host Username:", and "Host Password:". A note below the fields states: "The connection must have a login macro set to autostart. Find out how the details on the [z/Scope Anywhere Guide](#)". At the bottom of the form is a "Connect" button.

The website demo is accessible from the Users documents folder, under the directory \zScope Anywhere Demos\IISAuth. In order to compile this application, you can use the Microsoft Visual C# Studio 2010 Express. Download it from [here](#). Open the application from the menu *File-Open Web Site*.

The web.config parameters:

username/apikey:

The external authentication is set to use username/password by default, but you can also change the web.config file to start using the [username/apikey](#). Once you set a proper "APIKEY" value, the application will start doing the external authentication with [username/apikey](#).

```
<add key="APIKEY" value="3884F316-3429-49A0-9282-AF0C52B62107"/>
```

HTTP Protocol:

The demo application should be completely functional for environments where the z/Scope Anywhere is deployed on the same machine and running under the HTTP protocol. If your environment does not attend these conditions you can also personalize those values on the web.config file:

```
<add key="PROTOCOL" value="http:"/>
<add key="SERVER" value="127.0.0.1:8443"/>
```

HTTPS Protocol:

If the you want to use the HTTPS protocol, then a valid certificate will be required. Set up the application to use your personal Certificate: Managing the SSL Certificate section.

```
<add key="PROTOCOL" value="https:"/>
```

Read more:

- [Apikey](#)
- [Diffie Hellman Key Exchange](#)
- [Building the Query String](#)
- [Using z/Scope Anywhere In-Memory Dictionary](#)
- [Integrating a Login Macro](#)
- [Web Authentication Provider](#)

14.7 Web Authentication Provider

Z/Scope Anywhere lets you grant or deny access to connections based on users and groups defined in Active Directory Services. Additionally, the access to a z/Scope Anywhere connection can be granted using the External Web Authentication Provider. This mechanism resolves an authentication request by passing it to the external authentication source and then allows or denies the access according to its response.

To use this option, the ADS (Active Directory Services) authentication must be enabled.

Read More:

- [Enabling z/Scope Anywhere ADS authentication](#)
- [Enabling and Configuring the External Web Authentication Provider](#)
- [How to Use the External Web Authentication Provider](#)
- [How to Integrate your Custom Web Authentication Provider](#)

14.7.1 Enabling z/Scope Anywhere ADS authentication

To enable ADS authentication, remove the “Anonymous access” option from a connection. Then, add user(s) or group(s) to the connection to grant access according to your needs.

SERVER SETTINGS

Communication

Profiles

OAuth/2

Permissions

Web Auth. Provider

Licenses

Connection list:

Name	Key
<input checked="" type="checkbox"/> [any host]	nqhKzGLkwFQIHJHubH...
<input checked="" type="checkbox"/> mainframe	6DAB3AA1-BAEA-4880-...
<input checked="" type="checkbox"/> pub1.rzkh.de	D30997D5-295F-496D-...
<input checked="" type="checkbox"/> towel.blinkenlights.nl	21528A94-8F60-4587-9...

Allowed users and groups for selected connection

LAMBDA\Users

Anonymous access

Add Remove

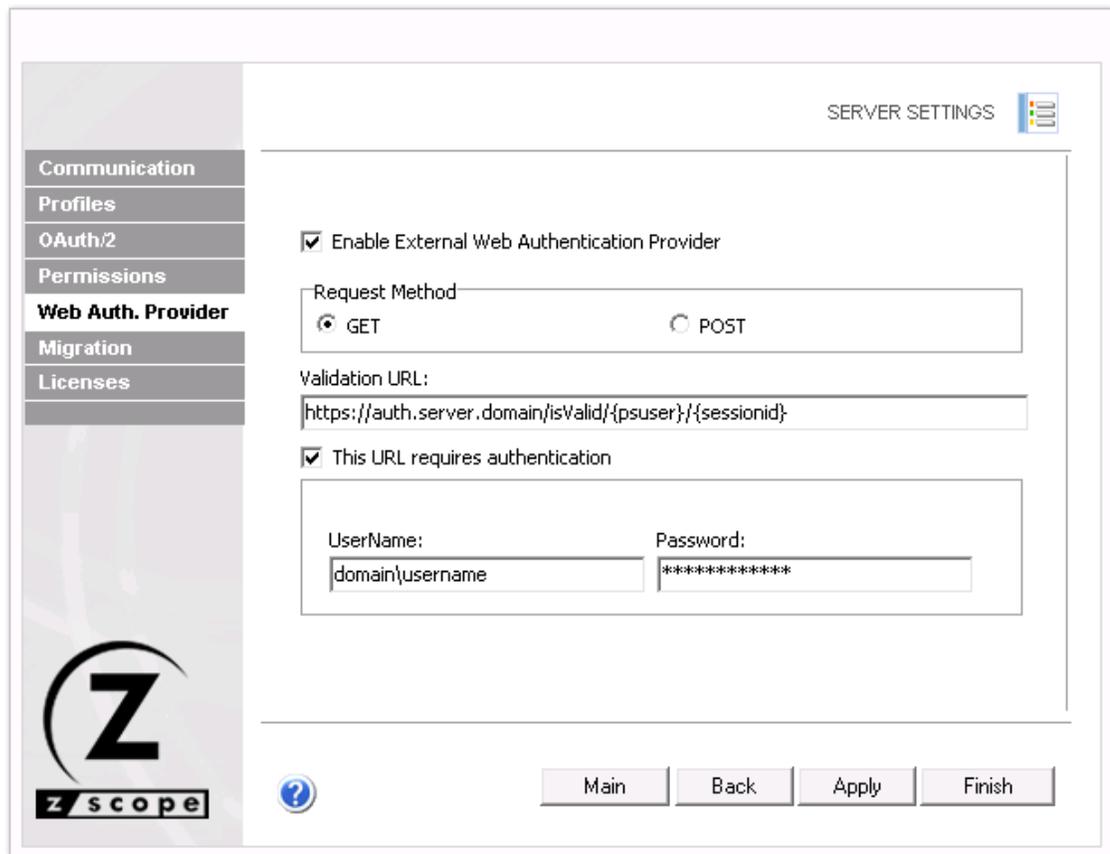
Main Back Apply Finish

Read More:

- [Enabling and Configuring the External Web Authentication Provider](#)
- [How to Use the External Web Authentication Provider](#)
- [How to Integrate your Custom Web Authentication Provider](#)

14.7.2 Enabling and Configuring the External Web Authentication Provider

To enable the External Web Authentication Provider, check the 'Enable External Web Authentication Provider' option in the 'Web Auth. Provider' tab in the Server Settings. Select the HTTP method and complete the validation URL and, if the URL requires authentication, check the 'This URL requires authentication' option and enter the remote credentials.



The screenshot shows the 'SERVER SETTINGS' window for the 'Web Auth. Provider' tab. The left sidebar contains navigation options: Communication, Profiles, OAuth2, Permissions, **Web Auth. Provider**, Migration, and Licenses. The main content area is titled 'SERVER SETTINGS' and contains the following configuration options:

- Enable External Web Authentication Provider
- Request Method:
 - GET
 - POST
- Validation URL:
- This URL requires authentication
- Authentication fields:
 - UserName:
 - Password:

At the bottom of the window, there are four buttons: Main, Back, Apply, and Finish. The z/Scope logo is visible in the bottom left corner.

Press 'Apply' or 'Finish' to save the changes.

Read More:

- [Enabling z/Scope Anywhere ADS authentication](#)
- [How to Use the External Web Authentication Provider](#)
- [How to Integrate your Custom Web Authentication Provider](#)

14.7.3 How to Use the External Web Authentication Provider

Make an Ajax call to the z/Scope Anywhere external authentication handler to validate the external credentials. For example:

```
<script type="text/javascript">
  function authenticateUser(serverurl, params, callback) {
    if (!serverurl)serverurl = "";
    if (serverurl.lastIndexOf("/") == serverurl.length - 1)
      serverurl = serverurl.substring(0, serverurl.length - 1);
    var cd = serverurl != "";
    var dt = serverurl == ""? "html" : "json";
    $.ajax({
      url: serverurl + "/authprov/" + params,
      crossDomain: cd,
      dataType: dt,
      statusCode: {
        200: function (data) {
          var url = cd? data.url : data;
          if (url.indexOf("://") > 0) serverurl = "";
          if (callback) {
            callback(serverurl + url);
          }
          else {
            location.href = serverurl + url;
          }
        }
      }
    });
  }

  function sendRequest(params) {
    authenticateUser("http://zscope.anywhere.server:8023",
      params,
      function(url) {
        location.href = url;
      });
  }
</script>
```

Use the *sendRequest* function with parameters specific to your authentication page so it can identify the user and return the appropriate values to z/Scope Anywhere. You can, for instance, call the sendRequest function with your website's session identifier. As in this example: `sendRequest("mySessionID=12345678&myUserID=JDoe")`

z/Scope Anywhere will forward these parameters to the validation URL and will return a new location URL.

Read More:

- [Enabling z/Scope Anywhere ADS authentication](#)
- [Enabling and Configuring the External Web Authentication Provider](#)
- [How to Integrate your Custom Web Authentication Provider](#)

14.7.4 How to Integrate your Custom Web Authentication Provider

Z/Scope Anywhere processes and forwards the received parameters depending on how it is configured.

How the z/Scope External Web Authentication Provider manages the received parameters

Using the GET HTTP method: the parameters will be forwarded to the validation URL using a QueryString(*).

For example:

```
http://zscope.anywhere.server:8023/authprov/?mySessionID=12345678&myUserID=JDoe
```

Using the POST HTTP method: the parameters will be forwarded on the request body as a JSON object(*).

For example:

```
{
  "mySessionID": "12345678",
  "myUserID": "JDoe"
}
```

Field Masks (*)

A *Field Mask* is a parameter enclosed within brackets. The field masks are used in the validation URL to customize it according to your needs.

These field masks aren't part of the data (QueryString or JSON) that z/Scope Anywhere will send to the validation URL.

For example, if the validation URL is set to:

```
https://auth.server.domain/isValid/{mySessionID}/
```

z/Scope Anywhere will call the URL replacing the field mask with the values assigned to these parameters in the ajax call:

```
https://auth.server.domain/isValid/12345678/
```

What the validation URL should return

The validation URL must return a JSON object that indicates if the authentication worked.

When the authentication fails, it should return a JSON with this format:

```
{
  "isValid": false,
  "redirectTo": "http://auth.server.domain/accessdenied.html"
}
```

This indicates that the external authentication has failed and redirects the users to a web page that handles this situation.

When the authentication is successful, it should to return a JSON following this format:

```
{
  "isValid": true,
  "username": "Company\\UserID",
  "fullname": "John Doe",
  "redirectTo": "http://auth.server.domain/integratedpage.html"
}
```

}

This indicates that the external authentication has been successful and redirects the users to a web page with the z/Scope Anywhere integration.

Read More:

- [Enabling z/Scope Anywhere ADS authentication](#)
- [Enabling and Configuring the External Web Authentication Provider](#)
- [How to Use the External Web Authentication Provider](#)

15 Purchasing z/Scope Anywhere

By purchasing a license of z/Scope Anywhere you will have access to technical support, free upgrades and updates and the activation key for advanced features.

In this section you will find information regarding the different existing licensing options that will help you to choose the type of order you need to place. Also, this section explains how to place your order and finally activate your product to enjoy all of the z/Scope Anywhere benefits.

- [Licensing Information](#)
- [How to Place an Order](#)
- [Registering z/Scope Trial Version](#)

15.1 Licensing Information

When it comes to purchasing z/Scope Anywhere, there are different licensing modes. Our range of possibilities assures you that you can make the best deal.

Permanent Licenses:

The permanent licenses do not expire and have the first year Maintenance Service included.

We encourage users to renew the annual Maintenance Service contract in order to be eligible for technical support and product upgrades. The Maintenance Service fee after the first year will still be 20% of the updated price of the purchased product.

Annual Licenses:

The annual licenses are a good way of apportion the licenses investment value. It has a more affordable price than the permanent license and has the Maintenance Service always included.

Maintenance Services:

Includes Technical Support by e-mail and/or phone, which also gives access to free updates and upgrades during the covered period and our full commitment to timely fix bugs and problems.

Read more on <http://www.cybelesoft.com/docs/Maintenance-Service.pdf>

In all cases Cybele Software offers volume pricing according to the amount of the purchase.

If you have any other question, contact us at sales@cybelesoft.com. Our sales representatives will gladly assist you with your licensing situation.

Read more:

- [Registering z/Scope Trial Version](#)
- [How to Place an Order](#)

15.2 Registering z/Scope Anywhere Trial Version

If you downloaded z/Scope Anywhere's Trial version from our web site or a distribution site and you have already purchased a license, you must follow these steps in order to register the product:

1. Open the "Configuration Manager" tool.
2. Go to the "Server Settings" icon.
3. Go to tab "Licenses".

4. Follow the instructions to [register a z/Scope Anywhere license](#).

Read more:

- [Licensing Information](#)
- [How to Place an Order](#)

15.3 How to place an order

There are many ways to order your z/Scope Anywhere licenses:

- Place an Online Order through our Web Site:

<http://www.cybelesoft.com/buy>

- Contact us at sales@cybelesoft.com. Let us know about your licensing needs and we will send you an official quotation. Our sales representatives will get in touch with you to assist you with the purchase.
- You can also call us anytime to any of these phone numbers and place the order immediately:

Toll Free: 1-866-462-9768

Local line: 1-302-892-9625

Fax: 1-302-295-9995

- You can also contact us through Live Chat by pressing this icon in our website:



and immediately have a conversation with a representative, without even having to pick up the phone.

When you buy z/Scope Anywhere, you will receive a Key to register the Trial version. For instructions on how to register z/Scope Anywhere when you purchase a license, see [Registering z/Scope Trial Version](#).

Read more:

- [Licensing Information](#)
- [Registering z/Scope Trial Version](#)

16 Obtaining Technical Support

Cybele Software's goal is to offer high quality products and services to increase the efficiency and ease-of-use of legacy systems. The whole Company focuses on this goal, and the results of our unique expertise are our reliable solutions. We believe passionately that modern, solid and feature-rich host access solutions can actually increase their users' productivity.

Technical support is a very important benefit to consider, especially when it comes to mission critical software solutions.

Using registered Cybele Software's applications not only allows you to receive free product upgrades and updates but also the certainty that you will have our team of experienced developers and technical support representatives working hard to assist you with any issue, thus making the product much more accessible in any situation.

By phone

We are here to help you out from monday to friday 9 a.m. to 5 p.m. eastern time on the phone numbers:

Toll Free: 1-866-462-9768
Local line: 1-302-892-9625
Fax: 1-302-295-9995

If you make your call outside this hour range, you can leave a message and we will get back to you.

By email

You can send us an email to support@cybelesoft.com and we will write you back timely.



Through our website

You can also contact us through Live Chat by pressing this icon in our website. Have a conversation with a representative without even having to pick up the phone.

Our address

Cybele Software Inc.
3422 Old Capitol Trail, suite 1125
Wilmington, DE - 19808
Phone: (302) 892-9625
Fax: (302) 295-9995
e-mail: support@cybelesoft.com
<http://www.cybelesoft.com>

