

Standalone SAPConsole 7.10



HELP.BCFESCONSOLE



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Icons in Body Text

Icon	Meaning
	Caution
	Example
	Note
	Recommendation
	Syntax

Additional icons are used in SAP Library documentation to help you identify different types of information at a glance. For more information, see *Help on Help → General Information Classes and Information Classes for Business Information Warehouse* on the first page of any version of *SAP Library*.

Typographic Conventions

Type Style	Description
<i>Example text</i>	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Cross-references to other documentation.
Example text	Emphasized words or phrases in body text, graphic titles, and table titles.
EXAMPLE TEXT	Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE.
Example text	Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
Example text	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
<Example text>	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
EXAMPLE TEXT	Keys on the keyboard, for example, F2 or ENTER.

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Standalone SAPConsole 7.10



Before starting to read the documentation, please note that the SAPConsole release cycle is independent of the SAP NetWeaver release cycle.

Purpose

As part of SAP's ongoing effort to build on SAP systems core business logic and offer it for non-standard display environments, SAPConsole has been developed to support different types of output devices. SAPConsole supports character-cell terminals, including radio frequency (RF) devices, as well as web-equipped devices.



The SAPConsole for web-equipped devices (also called Web-enabled SAPConsole or WebSAPConsole) will no longer be supported for SAP-systems based on SAP NetWeaver 7.1 and higher.

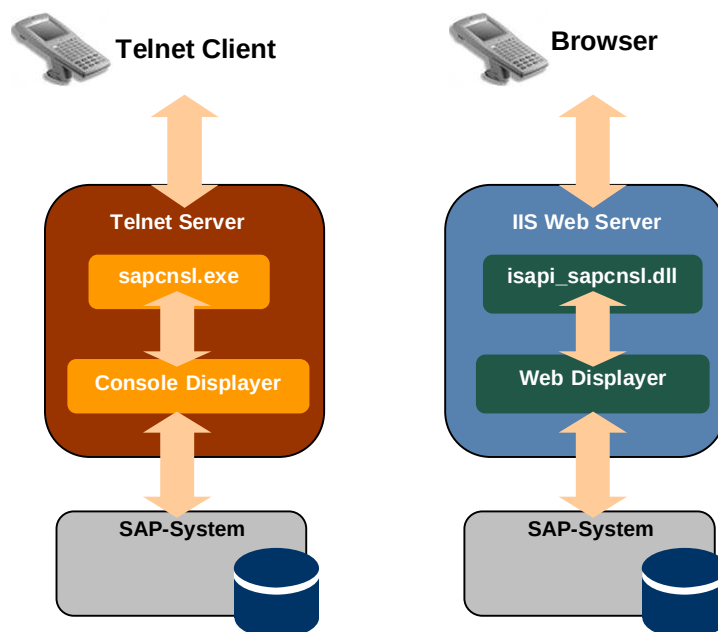
SAP therefore recommends to use ITSmobile for SAP Basis releases 46C and higher, a technology based on ITS, see also [ITSmobile versus Web-enabled SAPConsole \[page 7\]](#).

SAPConsole's main responsibilities are:

- Connecting to, and exchanging information with the SAP system. This information is usually in the form of descriptions of screen elements and their contents.
- Managing the interaction between users and screens.

Architecture

The following picture shows the architecture of the SAPConsole landscape.



There are two ways of information exchange with SAPConsole:

- Via Telnet

Telnet is used for character-based terminals. You can see the Telnet information flow on the left-hand side of the picture. During a telnet connection, the telnet client connects to the Telnet server and the Telnet server starts `sapcns1.exe` as command interpreter. For every authenticated connection a new interpreter is started. The rendering is done by the console displayer.

- Via Web Server

You can see the Web Server information flow on the right-hand side of the picture. During a browser-based session, the browser connects to the web server. In the example shown in the picture, the Web Server is an IIS web server. IIS starts `isapi_sapcns1.dll` as command interpreter. The rendering is done by the web displayer.



As of SAP NetWeaver 7.10, SAP J2EE Engine is not supported anymore as web server in the SAPConsole scenario. Instead the available IIS of Windows 2003 should be used.



SAPConsole administration tasks, for example specifying the SAP system to which to connect, are done in the [SAPConsole Administrator \[page 15\]](#).

Implementation Considerations

- You find the system requirements for running SAPConsole as well as the supported Telnet Servers, Web Servers, and Browsers in SAP Note 1043241.
- Up to and including Release 6.40 of SAP GUI for Windows/SAPConsole, SAPConsole was delivered together with SAP GUI. As of Release 7.10, SAPConsole is a standalone component and no longer delivered with the SAP GUI. For more information of where to find the software and how to install it see [Installing SAPConsole \[page 9\]](#).
- Since the SAPConsole 7.10 is a standalone component, you do not have to install SAP GUI on the server, where the SAPConsole is running.
- Concerning the upgrade to SAPConsole 7.10 from older versions, there are two scenarios:
 - If you just need the SAPConsole and no SAP GUI on the machine where the SAPConsole is installed, SAP recommends to uninstall the old SAP GUI and to install the new standalone SAPConsole 7.10.
 - If you also need a SAPGUI on the machine where the SAPConsole is installed, you should first upgrade the SAP GUI to release 7.10 and then install the standalone SAPConsole 7.10.

Features

- Provides the backbone for interfacing with mobile devices.
- Enhances the display coverage of the standard front-end SAP GUI component for character-cell environments.
- Provides vendor-independent support for character-cell RF terminals and web-equipped devices.
- Provides Telnet and Web access to the SAP system.
- Is compatible with standard ABAP/SAP GUI application and supports standard ABAP/SAP GUI development.

- Enables increased reusability of the ABAP environment.
- Is a single source for both graphic and character-cell terminals.
- Involves minimum application-specific development.
- Supports multiple configuration profiles.
- Supports text boxes, check boxes, radio buttons, and push buttons.
- Supports automated logon to a SAP system.
- Supports printing from a SAP system (output device must be configured in SAP system).

Constraints

SAPConsole has the following limitations:

- It requires Windows 2003 server (32 bit).
- It does not support some advanced SAP GUI features such as tab strips, ActiveX controls.

Activities

The fastest and easiest way to get the Standalone SAPConsole 7.10 working, is to follow the procedures of the [Best Practice \[page 9\]](#) section.



ITSmobile versus Web-enabled SAPConsole

SAP recommends to use ITSmobile, a technology based on ITS for SAP systems as of Basis release 4.6c and higher instead of the Web-enabled SAPConsole. ITS is SAP's standard technology to bring applications based on ABAP-Dynpros to the web. For systems based on SAP NetWeaver 7.1, the Web-enabled SAPConsole (also known as WebSAPConsole) will no longer be supported.



Note that SAPConsole as a technology to link character-based devices to SAP systems is still supported.

The following table shows the comparison between ITSmobile and WebSAPConsole:

	ITSmobile	WebSAPConsole
Infrastructure	ITS as an integrated functionality of SAP NetWeaver Application Server does not require a separate installation. Having a SAP system based on SAP NetWeaver you already have the ITS service available. ITS supports all hardware and operating system platforms supported by SAP NetWeaver.	WebSAPConsole requires a separate installation and separate hardware. It is limited to Windows Server 32Bit.
Customizing	By using a template technology, ITS supports the full customizing of the HTML representation of each screen (function key mapping, colors, fonts, etc.).	WebSAPConsole is delivered with a set of predefined displayer DLLs which cannot be modified.

	Using a generator which is part of the ABAP development workbench (SE80) the templates have to be generated once. This allows customers to work with any kind of mobile device that comes with a web browser. It is not required that SAP supports the device.	
Administration/ Monitoring	Due to the integration of ITS into the SAP NetWeaver Application Server, the well-known SAP system management tools like CCMS can also be used for administration and monitoring of the ITS.	WebSAPConsole provides Microsoft management console for administration, but does not provide specific tools for monitoring.
Security	Due to the integration of ITS into the SAP NetWeaver Application Server, no separate security infrastructure is required. Features like Single Sign On (SSO2), connection encryption (SSL, SNC), and external authentication (JAS) are provided by the application server.	WebSAPConsole does not support SSO2 or external authentication. For securing WebSAPConsole, a separate security infrastructure is required.
Support/ Further Development	ITS as an integrated part of SAP NetWeaver Application Server ABAP is long-term supported. With new releases of SAP NetWeaver, ITS is continuously improved.	WebSAPConsole is in maintenance mode and can only be used with SAP systems up to SAP NetWeaver 7.0. No further improvements are planned.



ITSmobile is not only available for newer releases based on SAP NetWeaver, but also for SAP Basis release 4.6C and newer SAP products which can be accessed via ITS 6.20 standalone.

Further Information

And for more information on the ITSmobile/WebSAPConsole-Comparison, see SAP Note 1070064.



Best Practice to Start Working with SAPConsole 7.10

The fastest and easiest way to get the Standalone SAPConsole 7.10 working, is to execute the following tasks in the given order:

- [Install SAPConsole 7.10 \[page 9\]](#).
- Configure SAPConsole 7.10 in the [SAP Console Administrator \[page 15\]](#) by creating a profile to make sure that a SAP login screen or dialog is displayed when you execute `sapcns1.exe`.
- Install and configure the [Telnet \[page 26\]](#) or [Web Server \[page 27\]](#).



Installing SAPConsole 7.10

Use

Although SAPConsole is a server component that is independent of the SAP GUI, it had been delivered together with SAP GUI up to and including Release 6.40 of SAP GUI for Windows. The reason was to guarantee the administrators a convenient distribution/installation of the software. However, SAP Console has in fact been unnecessarily installed on numerous clients and not just on a few servers.

Therefore, as of Release 7.10 of SAP GUI for Windows, the SAP Console is no longer included in the SAP GUI for Windows scope of delivery. Instead, a separate installation for the standalone SAP Console 7.10 has been developed. This software is available:

- on the SAP Service Marketplace under <http://service.sap.com/patches> → *SAP Frontend Components* → *SAP Console* → *SAP Console 7.10*
- on the Presentation DVD (as of March 2008)

Upgrade information

If you upgrade to SAPConsole 7.10 from older versions, there are two possible scenarios:

- You need the SAPConsole but no SAPGUI on the machine where the SAPConsole is installed. Then, SAP recommends to uninstall the old SAPGUI and to install the new standalone SAPConsole 7.10.
- You also need a SAPGUI on the machine where the SAPConsole is installed. Then, you should first upgrade the SAP GUI to release 7.10 and then install the standalone SAPConsole 7.10.

Prerequisites

You need the following prerequisites to install SAPConsole:

For a Telnet connection

- Windows 2003 server (32 bit) must be installed on the computer.
- The computer must be connected to the network.
- Telnet software must be installed and configured on the computer. For more information, see [Installing and Configuring Telnet \[page 26\]](#).
- A profile defining the host IP address of the telnet/SAPConsole server and the type of emulation that the RF device should use (such as VT-220) must be configured for each RF device.

For a Web connection

- Windows 2003 server (32 bit) must be installed on the computer.
- The computer must be connected to the network
- Web server software must be installed on the computer, for example the native IIS6 web server on Windows. For more information, see [Web Server Post-installation Steps \[page 27\]](#).



WebSAPConsole is not supported anymore for SAP-Systems based on SAP NetWeaver 7.1 and higher. SAP recommends to use ITSmobile instead. See also the [comparison between ITSmobile and WebSAPConsole \[page 7\]](#).

Procedure

As of SAPConsole 7.10, there are two ways of installing the software:

- Local installation on the server, see [Installing SAPConsole Locally on the Server \[page 10\]](#).
- Adding the SAP Console as a product to the Installation Server (NWSAPSetup tool). NetWeaver SAPSetup is SAP's new Windows Front-End Software Deployment Tool.

You find more information on this installation method in the SAP Frontend Installation Guide that you can find either on the SAP NetWeaver Presentation DVD under PRES1\GUI\DOCU or on SAP Service Marketplace under <http://service.sap.com/sapgui> → *Media Library* → *Literature*.

Result

You have installed the Standalone SAPConsole 7.10. Now you should configure SAPConsole 7.10 in the [SAP Console Administrator \[page 15\]](#) by creating a profile to make sure that a SAP login screen or dialog is displayed when you execute sapcns1.exe.

See also:

- [Best Practice \[page 9\]](#)
- For information on how to uninstall the SAP Console, see [Uninstalling SAP Console Locally from the Server \[page 14\]](#).



Installing SAPConsole Locally on the Server

Use

This section describes how you install SAP Console locally on your server.

Prerequisites

For the list of prerequisites, see [Installing SAP Console \[page 9\]](#).

Procedure

Proceed as follows to install SAP Console locally on the server:

1. Double-click the xSAPConsole.exe file.

The initial screen appears.



2. Choose *Next* to proceed to the next screen.

The product selection screen appears.

3. Select *SAP Console* and choose *Next*.



The system recommends a default folder for the installation.

4. Accept the recommended folder or choose a different one.



5. Choose *Next*.

The SAP Console is installed. After successful installation, you get the following screen:



Result

You have installed the SAP Console on the local machine. You can find a [list of installed files \[page 37\]](#) in the appendix.



If errors come up during the installation process, analyzing the installation log file may provide you with information on what went wrong. You find more information on this in the SAP Frontend Installation Guide that you can find either on the SAP NetWeaver Presentation DVD under PRES1\GUI\DOCU or on SAP Service Marketplace under <http://service.sap.com/sapgui> → *Media Library* → *Literature*.

Further Information

For information on installing and configuring Telnet, see [Installing and Configuring Telnet \[page 26\]](#).

For information on post-installation steps for web servers, see [Web Server Post-installation Steps \[page 27\]](#).

For information on the administration of SAP Console, see [SAP Console Administrator \[page 15\]](#).

For information on how to uninstall the SAP Console, see [Uninstalling SAP Console Locally from the Server \[page 14\]](#).



Uninstalling SAPConsole Locally from a Server

Use

This section describes how to uninstall SAPConsole locally from a server.

Prerequisites

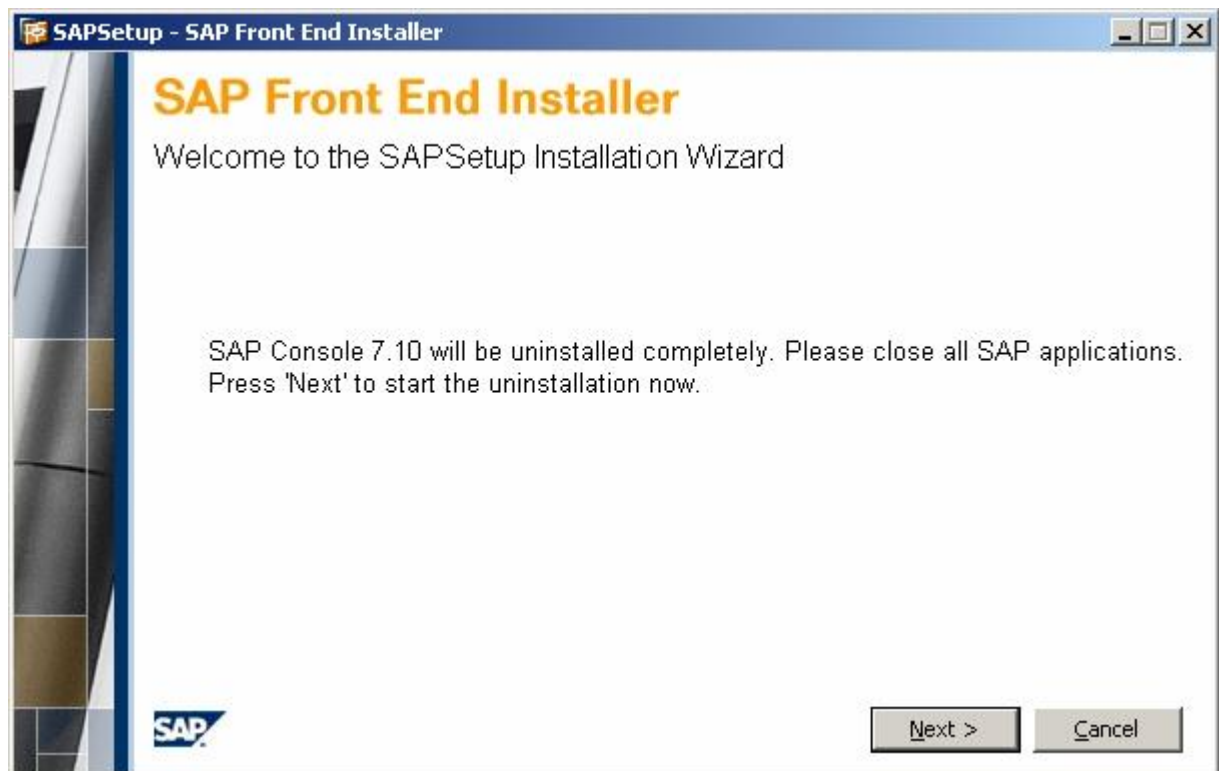
You have [installed SAP Console \[page 10\]](#).

Procedure

Proceed as follows to uninstall SAP Console locally from the server:

1. On the Windows system where the SAPConsole is installed, choose *Start → Control Panel → Add or Remove Programs*.
2. Select SAPConsole 7.10, and choose *Remove*.

The following screen appears:



3. Choose *Next*.

The uninstallation is executed. As soon as the uninstallation was successful, you get the following screen:



Result

You have uninstalled SAP Console.



SAP Console Administrator

Use

The SAPConsole Administrator is a Microsoft Windows control panel applet that provides you with the option of creating and editing usage profiles. A usage profile specifies the SAP backend system to which to connect. Using SAPConsole Administrator, you can define one or more profiles according to your needs.

There are no restrictions as to the usage of a profile and the number of profiles you can define. Several instances of the SAPConsole may simultaneously run on the same machine. These instances may either use different profiles or the same one.

Prerequisites

To use the SAPConsole Administrator, you have to open it by choosing *Start → Control Panel → SAP Console Administrator*.

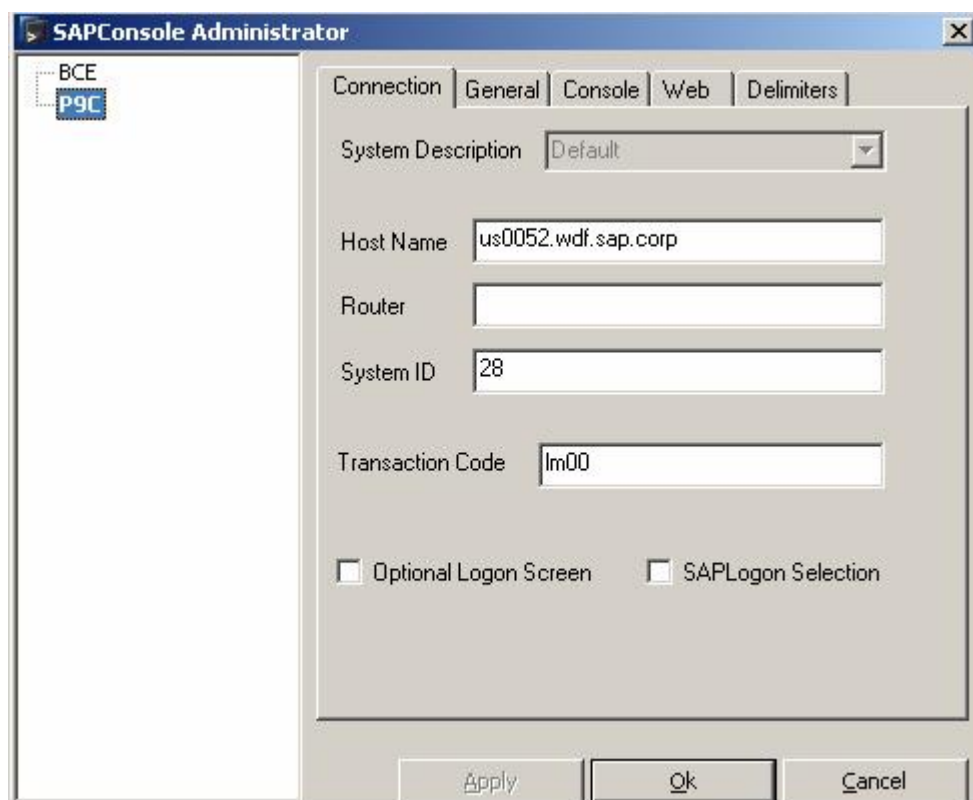
Activities

With the SAPConsole Administrator you can execute the following activities:

- [Working with Profiles \[page 17\]](#)
- [Defining Connections \[page 19\]](#)
- [Configuring General Settings \[page 21\]](#)
- [Configuring Console Settings \[page 23\]](#)
- [Configuring Web Settings \[page 25\]](#)
- [Configuring Delimiter Settings \[page 26\]](#)

Example

The picture below shows the entry screen of the SAPConsole Administrator. On the left-hand side, you can see the tree with the system connections (profiles). On the right-hand side, you see the tabs with the profile configuration (*Connections, General, Console, Web, and Delimiters*).



See also:

[Best Practice \[page 9\]](#)



Working with Profiles

Use

A profile is a group of settings, identified by a unique name, which is used by each instance of the SAPConsole. Each profile holds the information that determines the behavior of a running SAPConsole instance, including to which SAP backend system to connect and which transaction to use.

When you select a profile, the profile's name is passed on to the SAPConsole instance as a command line parameter (`sapcns1.exe -p <profile_name>`). Therefore, if you want to run SAPConsole with a non-default profile, you just should use the parameter `-p`.

Example: `sapcns1.exe -p H9B`

For more information on command line parameters, see [Appendix A: Command Line Parameters \[page 29\]](#).

Procedures

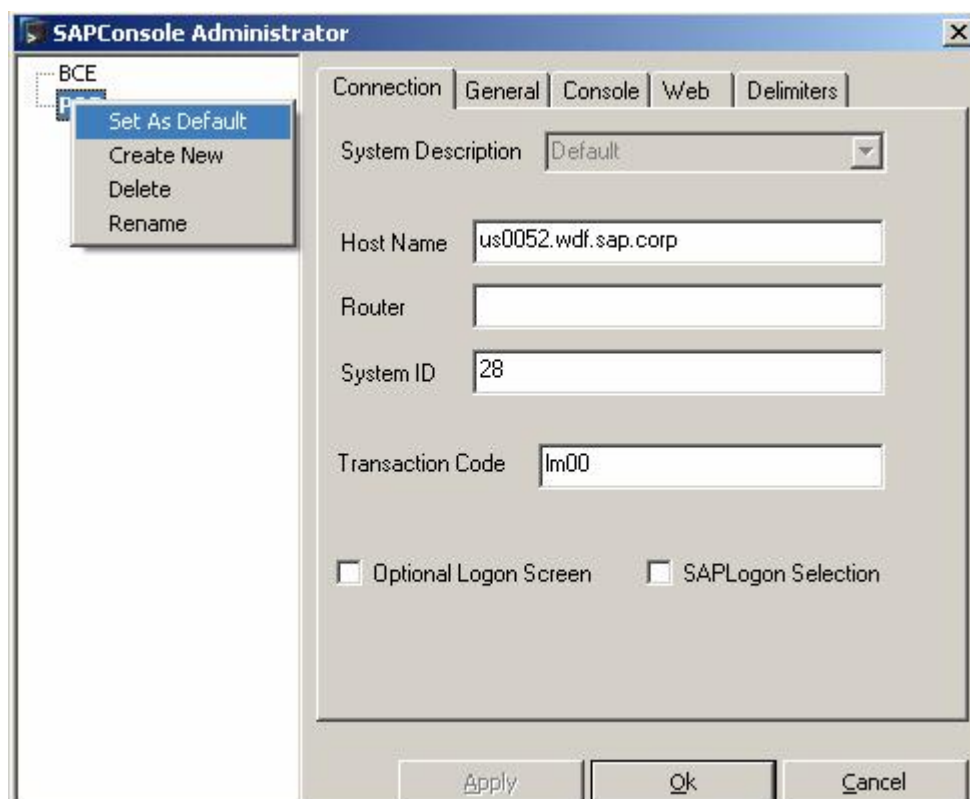
You can execute the following profile activities:

Activity	Description
----------	-------------

Selecting a profile	Choose the name of the profile from the profile tree on the left side of the SAPConsole Administrator screen. The following tabs appear on the right side of the screen: • <i>Connection</i> • <i>General</i> • <i>Console</i> • <i>Web</i> • <i>Delimiters</i>
Creating Profiles	You can create a new profile from the beginning or create one with the same configuration as an existing profile. To create a new profile from the beginning: 1. In the profile tree, right-click and choose <i>Create New</i>. 2. In the <i>Profile Name</i> field, enter a name and choose <i>OK</i>. 3. After you have configured the profile's settings, choose <i>Apply</i>. The system saves the profile. To create a profile based on an existing profile: 1. In the profile tree, right-click and choose <i>Create New</i>. 2. In the <i>Profile Name</i> field, enter a name and choose <i>OK</i>. 3. In the <i>From Template</i> field, choose the name of the profile on which to base the new profile. 4. Choose <i>OK</i>. The system creates a new profile with the same configuration as the original profile.
Deleting profiles	To delete a profile: 1. Select the profile. 2. Right-click the profile and choose <i>Delete</i>.
Editing profiles	You can change the configuration and name of a profile. To change the configuration of a profile: 1. Select the profile and modify its settings. 2. After you have changed the profile's settings, choose <i>Apply</i>. The system saves the profile. To rename a profile: 1. Select the profile. 2. Right-click the profile and choose <i>Rename</i>. 3. Enter a new name for the profile.
Setting the default profile	You can set any profile as the default profile. To set a profile as the default profile: 1. Right-click the profile and choose <i>Set as default</i>. 2. The name of the profile is displayed in bold.

Example

The following example shows the profiles BCE and P9C in the profile tree on the left-hand side. P9C has been selected and you can see the connection data for system P9C. The context menu shows what activities can be executed for this profile.



Defining System Connections

Use

The SAPConsole Administrator allows you to either manually define a connection to the SAP system or use existing connection parameters from SAPLogon. In addition, you have the possibility to use a modifiable logon screen.

Prerequisites

Like SAPLogon, the standalone SAPConsole 7.10 needs the following files filled with the corresponding content so that you can define system connections properly:

- saproute.ini and sapmsg.ini under C:\Windows
- service under C:\Windows\System32\drivers\etc
- For using existing connection parameters from SAPLogon, you need additionally the saplogon.ini under C:\Windows.

Activities

You have the following possibilities to define system connections:

Manually Defining a Connection

You can add a new system by manually entering the SAP backend system connection parameters. This requires the determination of a host and router.



Adding new systems to the SAPConsole Administrator does not automatically add them to SAPLogon.

Proceed as follows to manually define a connection for a profile:

1. Select the profile.
2. In the *Connection* tab, enter the following details:

Field	Description
Host Name	Name of the host
Router	Complete SAP router string
System ID	Number of the system to which you are logging on.
Transaction Code	The first transaction code that will be executed.

Example:

The screenshot shows the 'SAPConsole Administrator' window with the 'Connection' tab selected. The left pane shows a tree structure with 'BCE' and 'P9C' under a 'UUU' icon. The right pane contains the following fields and controls:

- System Description:** A dropdown menu set to 'Default'.
- Host Name:** A text box containing 'pwwf1016.wdf.sap.corp'.
- Router:** A text box containing '/H/sapgateb.wdf.sap-ag.de/S/3299/H/'.
- System ID:** A text box containing '60'.
- Transaction Code:** A text box containing 'lm01'.
- Optional Logon Screen:** An unchecked checkbox.
- SAPLogon Selection:** An unchecked checkbox.
- Buttons:** 'Apply', 'Ok', and 'Cancel' at the bottom.

Using Existing Connection Parameters from SAPLogon

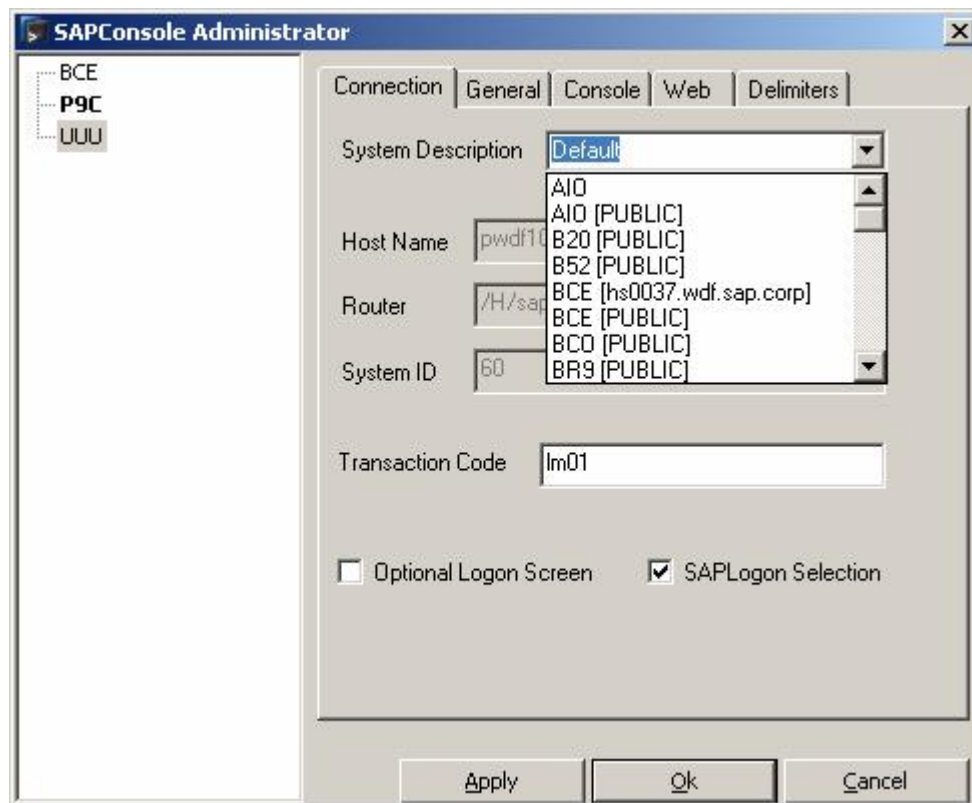
You can use the connection parameters of any system that has been added to SAPLogon's list.



Note that for using existing connection parameters from SAPLogon, you need to have maintained the `saplogon.ini` under `C:\Windows` which is normally created by and configured in SAPGui.

To use existing connection parameters from SAPLogon:

1. In the *Connection* tab, select *SAPLogon Selection*.
The *System Description* and *Transaction Code* fields appear in the *Connection* tab.
2. Select a system.
3. Enter a transaction code representing the first transaction that will be executed.



Using a Modifiable Logon Screen

You can connect to the SAP backend system via an additional modifiable logon screen for releases 4.6C and higher (Program SAPMSYST, number 0025).

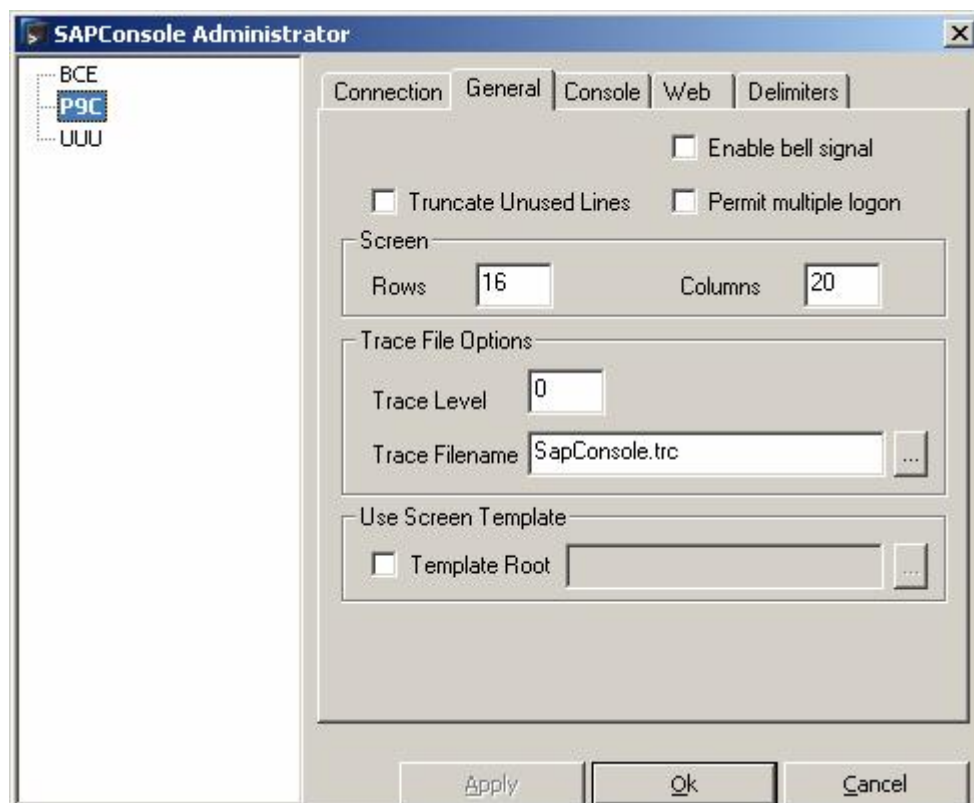
Proceed as follows to use the modifiable logon screen:

In the *Connection* tab, select *Optional Logon Screen*.



Configuring General Settings

This section describes the possible general settings on the *General* tab of the SAPConsole Administrator:



You can configure the following general settings for a profile:

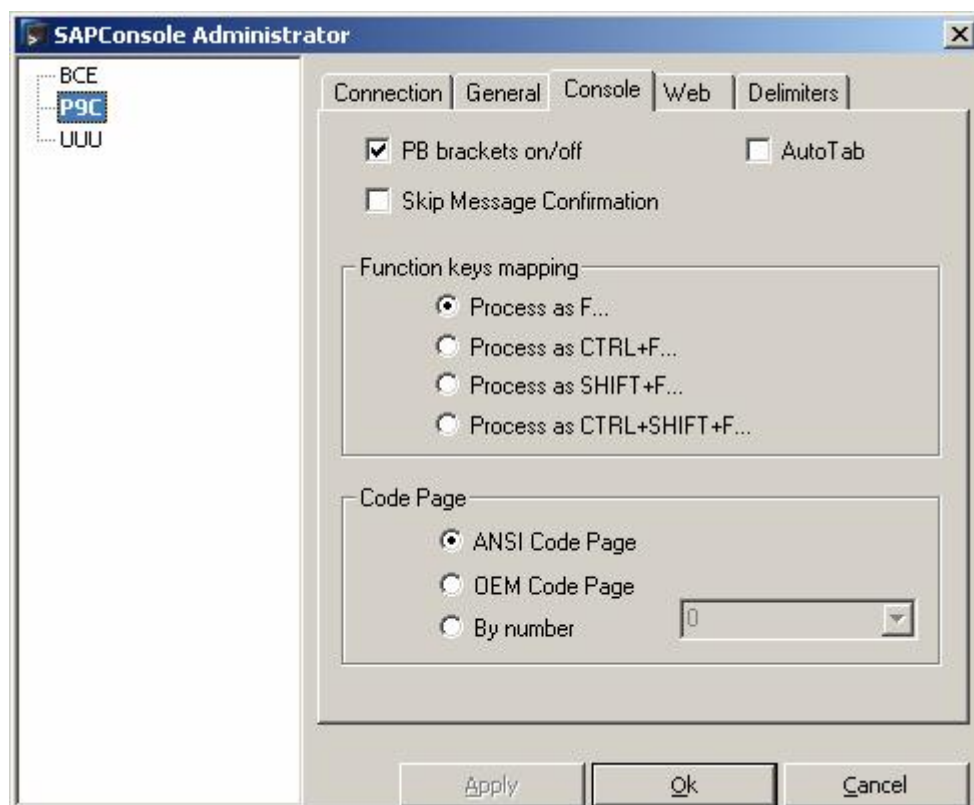
Field/Button	Description
<i>Enable bell signal</i>	Provides a bell sound upon receipt of an error message: - When using a telnet connection, the bell signal is only possible for SLnet and Georgia Softworks. - When using a HTTP connection, see Appendix D [page 36].
<i>Truncate Unused Lines</i>	The ability to define whether unused lines (such as frames and empty lines) require truncation.
<i>Permit multiple logon</i>	Enables multiple logons to the same SAP backend system under the same user name.
<i>Screen rows and columns</i>	Allows you to configure the size of message screens.

<i>Trace File Options</i>	Allows you to create traces. Make sure that the trace file is writable by the server user. If necessary use a full path if you do not know the current start path, for example in case of a webserver service. The trace levels are as follows: 0 Error 1 Warning 2 Trace 3 Monitor
<i>Use Screen Template</i>	Enables you to use predefined templates for some SAP screens (currently in test phase).



Configuring Console Settings

This section describes the possible console settings on the *Console* tab of the SAPConsole Administrator:



You can configure the following console settings for a profile:

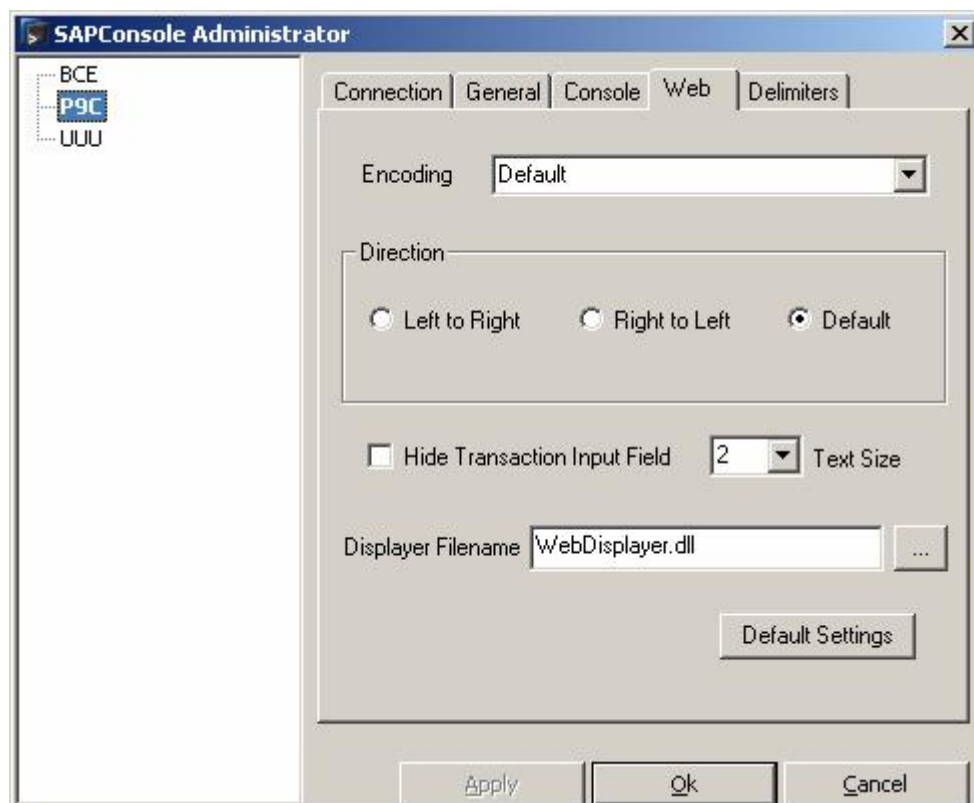
Field/Button	Description
<i>PB brackets on/off</i>	Enables you to conclude pushbuttons with/without brackets.

<i>Auto Tab</i>	Enables automatic cursor transition to the next input field, when the previous input field is completely filled.
<i>Skip Message Confirmation</i>	Allows for the automatic confirmation of SAP backend system messages (such as when SAPConsole is started in batch mode). This function is particularly useful for customers with middleware programs, who want to avoid double messaging.
<i>Function keys mapping</i>	The option to remap the function keys that are sent from RF devices to the SAP backend system. • <i>Process as F</i> – no remapping • <i>Process as CTRL + F</i> – for example, F1 is substituted by Ctrl + F1 • <i>Process as SHIFT + F</i> – for example, F1 is substituted by Shift + F1 • <i>Process as CTRL + SHIFT + F</i> – for example, F1 is substituted by Ctrl + Shift + F1
<i>Code Page</i>	Provides various character sets and language support: • <i>ANSI Code page</i> – the default ANSI code page • <i>OEM Code page</i> – the default OEM code page • <i>By number</i> – a specific code page number to be defined



Configuring Web Settings

This section describes the possible console settings on the *Web* tab of the SAPConsole Administrator:



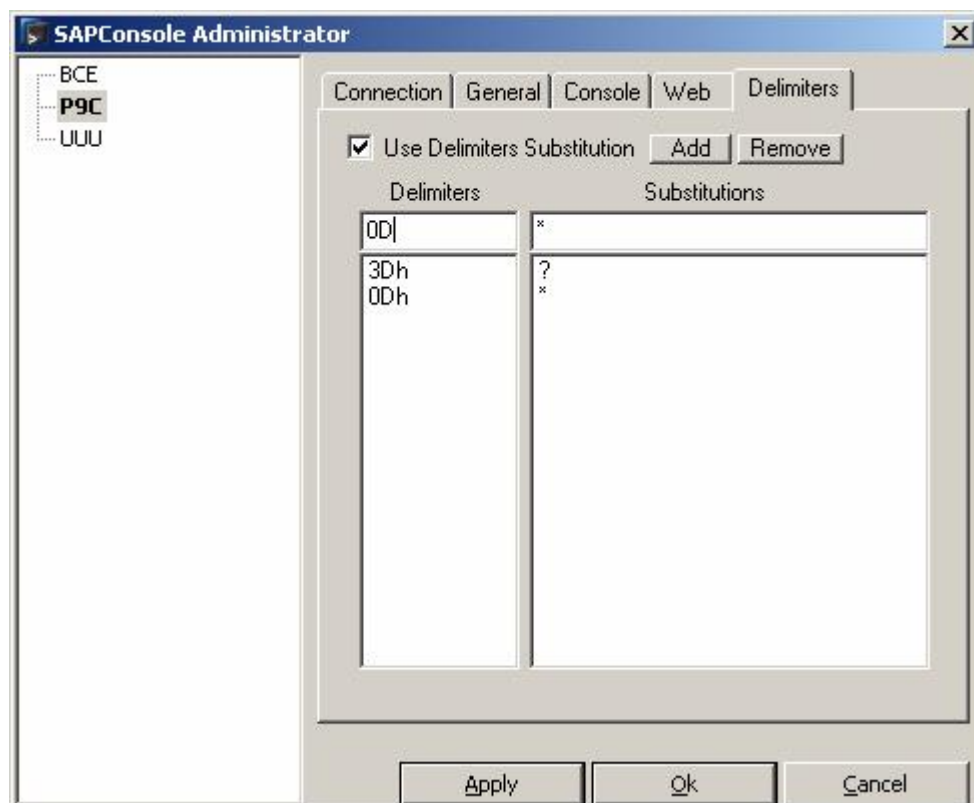
You can configure the following web settings for a profile:

Field/Button	Description
Encoding	Determines the language and character set to be used in the browser.
Direction	Determines the view direction of Web pages.
Hide Transaction Input Field	Determines whether it will be possible to change transactions.
Text Size	Allows you to set the size of the text in the HTML page (from 1 to 6).
Displayer Filename	Sets the Web displayer according to the browser type.
Default Settings	Initiates the default settings installation. The browser will use the default region options of Windows.



Configuring Delimiter Settings

This section describes the possible console settings on the *Delimiter* tab of the SAPConsole Administrator:



You can configure the following delimiter settings for a profile:

Field/Button	Description
<i>Use Delimiter Substitution</i>	Enables the hexadecimal non-printable character, which is used in the barcode string as a delimiter, to be captured by the SAPConsole and replaced with the printable string. An example is FNC1 in the EAN128 barcode standard.



Installing and Configuring Telnet

Prerequisites

For the prerequisites, see section [Best Practice \[page 9\]](#).

Activities

Proceed as follows to install the Telnet Server and Client:

Installing the Telnet Server

You must install the Telnet server on the same server as SAPConsole. For information on installing a Telnet server, see the installation guide and/or the user guide for the Telnet server.

Available Telnet servers include the following:

- SLnet 2.6 RF version from Seattle Labs (www.seattlelab.com)
- GS_Tnet from Georgia Softworks (www.georgiasoftworks.com)
- Other Telnet servers that support VT220 emulation

Configuring the Telnet Server

You should configure the Telnet server to use `sapcns1.exe` as the command interpreter instead of the 'normal' `cmd.exe`. The configuration itself is Telnet server-dependent. Therefore, you have to look up details in your Telnet Server guide.



`sapcns1.exe` can also run as a standalone application on your Telnet server host and thereby is helpful for testing, troubleshooting, and configuration.

Installing the Telnet Client

You should install the Telnet client on a different machine. When configuring the Telnet client profile:

- Enter the IP address of the machine on which SAPConsole and the Telnet server are installed.
- Use the VT-220 emulation.
- Configure the function key codes according to the VT-220 emulation. For example, the virtual key code for F1 is 112 (70 in hex).



Web Server Postinstallation Steps

Prerequisites

For the prerequisites, see section [Best Practice \[page 9\]](#).

Activities

As of SAPConsole release 7.10, it is no longer recommended to use SAPConsole with SAP J2EE Server. You should instead make use of the IIS web server which is part of the Windows 2003 server operating system.

Configuring IIS6

Proceed as follows to configure the IIS6 for the use with SAP Console.

1. From the *Start* menu, choose *Settings* → *Control Panel* → *Administrative Tools* → *Services*.
2. Check that the IIS Admin Service and WWW Publishing Service are started.
3. From the *Start* menu, choose *Settings* → *Control Panel* → *Administrative Tools* → *Internet Information Services (IIS) Manager*.

The *Information Services (IIS) Manager* window opens.

4. Expand the tree in the left frame.
5. Select the node *Web Site*.

6. Right-click *Default Web Site* in the right frame.
7. Choose *New* → *Virtual Directory*.
8. Name the virtual directory, for example *SAP*.
9. Set up the Web Site Content Directory, for example *C:\Program Files\SAP\Console*.
10. Assign *Execute access permission* to the virtual directory.
11. Choose *Finish*.
12. Select the node *Web Service Extensions*.
13. Right-click in the right frame.
14. Choose *Add a new Web service extension*.
15. Name the extension, for example *WebSAPConsole*.
16. At *Required files*, choose the *Add* button.
17. Browse to *isapi_sapcns1.dll*, for example to *C:\Program Files\SAP\Console\isapi_sapcns1.dll*.
18. Mark *Set extension status to allowed*.
19. Choose *OK* and close the Internet Information Services window.
20. Start the WebSAPConsole via the URL
`http://<host>/sap/isapi_sapcns1.dll`.

Troubleshooting in IIS6

Proceed as follows to troubleshoot in IIS6:

- Check the *<host>* and *<port>* settings of the web site and use
`http://<host>:<port>/sap/isapi_sapcns1.dll`.
- Check the authentication and access control for this virtual directory.
- Check the application pool for this virtual directory.
- Check the identity control of the application pool
- Check the recycling scheme of the application pool.

In general most problems appear in user credentials and access control. This means that an *isapi.dll* cannot be executed, a trace file cannot be written, a configuration file cannot be read etc. all due to inappropriate credentials.



Preparing the RF Terminal for Users

Use

The administrator should take measures to ensure that the connection to the SAPConsole is established automatically for any user calling up the Telnet server via an RF terminal. The user will be required to only enter his or her user name and password to start working in the SAP backend system.

If the administrator does not do this, it will be necessary to inform the RF terminal user as to which [command line \[page 29\]](#) he or she must enter after connecting to the Telnet server.

The administrator can define profiles that differ with respect to:

- The SAP backend system to which the user connects

- The first transaction code that will be executed

Procedure

If the administrator wishes to assign one or more users to a specific profile, this must be done via the Telnet administrator. The users themselves are defined in the Telnet server, and each of them can then be assigned to a profile in the SAPConsole Administrator.

The exact action taken by the administrator will depend on personal preferences.

Examples

Example 1: There is a need to define different profiles for different activities

The administrator should define different profiles with different transaction codes. For instance, one transaction code may be for cycle counting and the other may be for putaways.

Example 2: The RF terminals being used have different screen sizes

The administrator should define two different profiles with different transaction codes. One transaction code will be for larger screens, and the other will be for smaller screens. The administrator can then assign each different RF terminal to its appropriate profile.



Appendix A: Command Line Parameters

The command line parameters of the SAPConsole are as follows:

Desktop and Telnet Version

sapcns1.exe [-PARAM1[VALUE1]... -PARAMn [VALUEn]...]

Where:

- ? = help
- a = try to login without confirmation
- p = profile name
- c = client
- u = user name
- s = password
- l = language

Example:

sapcns1.exe -p "U9C test" -c 800 -u youruser -s yourpswrd -l en -a

Web Version

Where:

- p = profile name
- c = client
- u = user name
- s = password
- l = language

a = try to login without confirmation

These parameters are added to URL using "GET" method.

The priority of parameters: p, c, u, s, l, a.

Examples (for IIS):

`http://alextest/sap/isapi_sapcns1.dll?p=u9b`

`http://alextest/sap/isapi_sapcns1.dll?c=800&u=alex&s=223322&l=en`

`http://alextest/sap/isapi_sapcns1.dll?p=u9b&c=800&u=alex&s=223322&l=en&a`

`http://alextest/sap/isapi_sapcns1.dll?p=u9b&c=800&u=alex&s=223322&l=en`



Appendix B: Specifying Escape Sequences

Use

The Telnet server converts the escape sequences, which are recognized, to the Windows virtual keys. SAPConsole uses the virtual keys.

For more information on the escape sequences and virtual keys, see the VT220.TXT text file provided with the SAPConsole package. This file is for information only.

Example

Here, an example of the file contents:

```
[A 0 38 % Up arrow
[B 0 40 % Down arrow
[C 0 39 % Right arrow
[D 0 37 % Left arrow
[P 0 46 % Delete key
OP 0 112 % F1
OQ 0 113 % F2
OR 0 114 % F3
OS 0 115 % F4
[35~ 0 116 % F5
[17~ 0 117 % F6
[18~ 0 118 % F7
[19~ 0 119 % F8
[20~ 0 120 % F9
[21~ 0 121 % F10
[3~ 0 33 % PgUp
```

```
[6~ 0 34 % PgDn
%XX 0 122 % F11 - inactive
%XX 0 123 % F12 - inactive
%XX 0 124 % F13 - inactive
%XX 0 125 % F14 - inactive
%XX 0 126 % F15 - inactive
%XX 0 127 % F16 - inactive
%XX 0 128 % F17 - inactive
%XX 0 129 % F18 - inactive
%XX 0 130 % F19 - inactive
%XX 0 131 % F20 - inactive
%XX 0 132 % F21 - inactive
%XX 0 133 % F22 - inactive
%XX 0 134 % F23 - inactive
%XX 0 135 % F24 - inactive
```

Each line in the file identifies one escape sequence recognized by the Telnet server. A line starting with '%' is considered to be a comment only and is disregarded.

The escape sequence is identified by 3 parameters:

1. The escape sequence characters (not including the ESC character that starts the sequence)
2. The ASCII key code that is to be generated upon recognition of this sequence (usually 0 for extended keys).
3. The Windows Virtual Key code to be generated upon recognition of this sequence. All numbers specified in the terminal configuration file are in decimal format.



Appendix C: Bell Signal Transmission to SAPConsole

The bell signal provides a bell sound upon receipt of an error message. In this section, you find information about how to set up the transmission from the SAP system side to the SAPConsole by any SAP screen.

1. Create inside the relevant screen a module inside the PBO, for example **Module Bell_Signal**.

```
PROCESS BEFORE OUTPUT.
MODULE BELL_SIGNAL.
*  MODULE STATUS_SCREEN.
*  MODULE SU_TEXT.
*  MODULE DISABLE_PB_SAVE.
*  MODULE SET_CURSOR.
```

PROCESS AFTER INPUT.

* MODULE EXIT_COMMANDS AT EXIT-COMMAND.

* FIELD OK_CODE MODULE USER_COMMANDS.

MODULE GET_CURSOR.



As you can see above in the demo, all other modules are marked with * in order to emphasize the relevant module.

2. The Module should include the following code:

```
*&-----*
&      Module  Bell_Signal  OUTPUT
*&-----*
*      text
*-----*

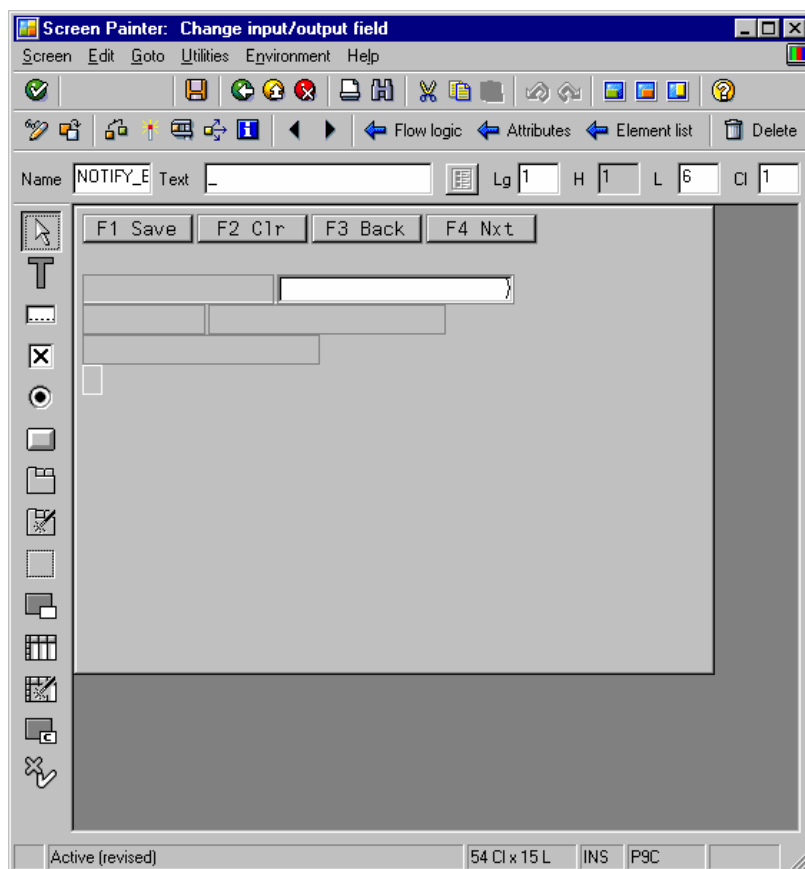
MODULE Bell_Signal OUTPUT.
DATA NOTIFY_BELL_SIGNAL(1) TYPE N.
NOTIFY_BELL_SIGNAL = '3'.
ENDMODULE.                " Bell_Signal  OUTPUT
```

The definition of the variable NOTIFY_BELL_SIGNAL is numeric with one position, which allows the programmer to enter values between 1-9 (the number of "BEEP" sounds that you want to play). In this example, 3 has been assigned to the variable. This way you can send different numbers of bell signals and differentiate in the code between successes and errors.

You also need to define in the screen layout a field NOTIFY_BELL_SIGNAL with the following characteristics:

- Field length: one position.
- Field format: NUMC.
- The field is Output only.
- The field is visible, although nothing will be shown on the run since the bell signal is captured on its way to the screen, and the "beep" sound is played instead by the SAPConsole.

In the following screenshot, you can see the last field in the screen, defined accordingly:



In the next screenshots, you can see the three different settings tabs for the relevant field:

Screen Painter: Attributes

El. type: Input/output field

Name: NOTIFY_BELL_SIGNAL

Text:

Dropdown:

With icon: ☐ Scrollable: ☐

Line: 6 Def. Length: 1

Column: 1 Vis. Length: 1

Height: 1

Groups:

FctCode: FctType:

Context menu form: ON_CTMENU_

Attributes

Dict | Program | Display

Format: NUMC

☐ From dict. Modify:

Conv. Exit:

Search help:

Ref. field:

Parameter ID:

☐ SET parameter

☐ GET parameter

☐ Foreign key check

☐ Upper/lower case

Screen Painter: Attributes

El. type: Input/output field

Name: NOTIFY_BELL_SIGNAL

Text:

Dropdown:

With icon: ☐ Scrollable: ☐

Line: 6 Def. Length: 1

Column: 1 Vis. Length: 1

Height: 1

Groups:

FctCode: FctType:

Context menu form: ON_CTMENU_

Attributes

Dict Program Display

☐ Input field

☒ Output field

☒ Output only

☐ Required field

☐ Entry help

Poss. entries:

☐ Right-justified

☐ Leading zeros

☐ * entry

☐ Without reset

☐ Without template

Screen Painter: Attributes

El. type: Input/output field

Name: NOTIFY_BELL_SIGNAL

Text:

Dropdown:

With icon: ☐ Scrollable: ☐

Line: 6 Def. Length: 1

Column: 1 Vis. Length: 1

Height: 1

Groups:

FctCode: FctType:

Context menu form: ON_CTMENU_

Attributes

Dict Program Display

☐ Fixed font

☐ Bright

☐ Invisible

☐ 2D display

☐ As label on left

☐ As label on right

☐ Responds to double-click



Appendix D: Bell Signal Reception/Processing by SAPConsole

This section describes bell signal reception and processing by the SAPConsole:

1. If the variable NOTIFY_BELL_SIGNAL = 3, then SAPConsole will create three beeps:
 - In the telnet mode (sapcns1.exe), you can hear three beeps.
 - In the Web mode, we use the tag <bgsound src="sounds/alert.wav"/> in order to send a beep and, therefore, cannot send the wav file three times. However, you can send other wav files, for example, <bgsound src="sounds/beeps.wav"/>.

Therefore, the following new registry key is created:

HKEY_LOCAL_MACHINE\SOFTWARE\SAP\Ofek\SapConsole\Profiles\<profile_name>\WebBeepNotify



Example:

WebBeepNotify = sounds/beeps.wav

Thus, if NOTIFY_BELL_SIGNAL=n exists in SAP screen and n>0, then the name of a wav file is taken from WebBeepNotify.

2. Determine different message types.

Available message types are:

- X (EXIT)
- A (Abend)
- I (Information)
- E (Error)
- W (Warning)
- S (Status)

The following new registry keys are created:

HKEY_LOCAL_MACHINE\SOFTWARE\SAP\Ofek\SapConsole\Profiles\<profile_name>\WebBeepMessageA

HKEY_LOCAL_MACHINE\SOFTWARE\SAP\Ofek\SapConsole\Profiles\<profile_name>\WebBeepMessageE

HKEY_LOCAL_MACHINE\SOFTWARE\SAP\Ofek\SapConsole\Profiles\<profile_name>\WebBeepMessageI

HKEY_LOCAL_MACHINE\SOFTWARE\SAP\Ofek\SapConsole\Profiles\<profile_name>\WebBeepMessages

HKEY_LOCAL_MACHINE\SOFTWARE\SAP\Ofek\SapConsole\Profiles\<profile_name>\WebBeepMessageW

HKEY_LOCAL_MACHINE\SOFTWARE\SAP\Ofek\SapConsole\Profiles\<profile_name>\WebBeepMessageX



Messages of type A and I have the same properties and cannot be separated. Thus, they have the same sound. Similarly, messages of type W have the same sound as messages of type E.

The default values are as follows:

WebBeepMessageA = sounds/alert.wav

WebBeepMessageE = sounds/alert.wav

WebBeepMessageI = sounds/alert.wav

WebBeepMessageS = sounds/alert.wav

WebBeepMessageW = sounds/alert.wav

WebBeepMessageX = sounds/alert.wav

WebBeepNotify = sounds/alert.wav

You can create your own wav file for each message type and send it.



Appendix E: List of Installed Files

After the SAPConsole installation process, the following files can be found on the machine where the SAPConsole has been installed:

Path	Description
C:\Program Files\SAP\Console\ConnectionGuilib.dll	SAPConsole connection library
C:\Program Files\SAP\Console\ConsoleDisplayer.dll	SAPConsole displayer for Telnet
C:\Program Files\SAP\Console\IntermecDisplayer.dll	WebSAPConsole displayer for Intermec handhelds
C:\Program Files\SAP\Console\isapi_sapcns1.dll	WebSAPConsole API for IIS
C:\Program Files\SAP\Console\sapcns1.dll	SAPConsole runtime
C:\Program Files\SAP\Console\sapcns1.exe	SAPConsole command interpreter for Telnet
C:\Program Files\SAP\Console\sapcpp47.dll	SAP basis CPP runtime

C:\Program Files\SAP\Console\SymbolDisplayer.dll	WebSAPConsole displayer for Symbol handhelds
C:\Program Files\SAP\Console\Trace.dll	WebSAPConsole trace
C:\Program Files\SAP\Console\VoiceXMLDisplayer.dll	WebSAPConsole voice XML displayer transformer
C:\Program Files\SAP\Console\WebDisplayer.dll	WebSAPConsole default displayer
C:\Program Files\SAP\Console\xml71d.dll	SAP basis XML library
C:\Program Files\SAP\Console\XMLDisplayer.dll	SAP basis XML displayer transformer
C:\Program Files\SAP\Console\xtc21d.dll	SAP basis XML translation library
C:\Program Files\SAP\Console\images\saplogo.gif	SAP logo
C:\Program Files\SAP\Console\sounds>alert.wav	Alert sound
C:\Windows\system32\Profile.cpl	Control panel plugin for SAPConsole Administration