Standalone SAPConsole 7.30

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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
Example text	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`.

Table of Contents

Standalone SAPConsole 7.30

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

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.

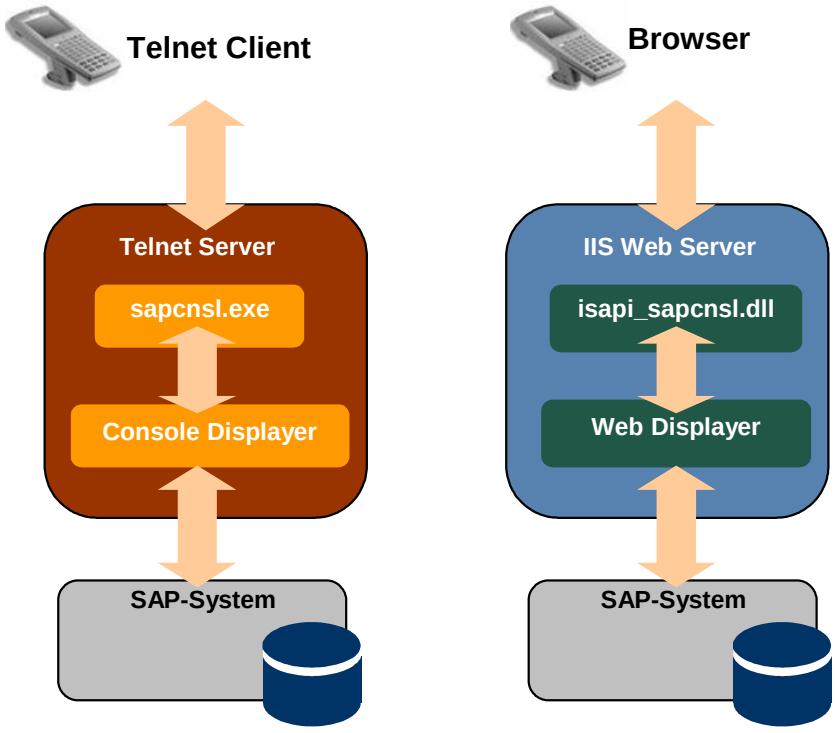
The SAPConsole for web-equipped devices (also called Web-enabled SAPConsole or WebSAPConsole) will no longer be supported for SAP-systems based on SAP NetWeaver releases higher than 7.0.

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 9].

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



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 `sapcnsl.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_sapcnsl.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 or 2008 should be used.

  SAPConsole administration tasks, for example specifying the SAP system to which to connect, are done in the SAP Console Administrator [Page 22].

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 7.30 [Page 11].
- Since the SAPConsole 7.30 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 7.30 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 7.30.
  - If you also need a SAPGUI on the machine where the SAPConsole is installed, you should first upgrade the SAP GUI to release 7.30 and then install the standalone SAPConsole 7.30.

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 server (both 32 and 64 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 7.30 working, is to follow the procedures of the Best Practice [Page 50]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 releases higher than 7.0, 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.
Customizing	By using a template technology, ITS supports the full customizing of the HTML representation of each screen (function key mapping, colors, fonts, etc.). 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.	WebSAPConsole is delivered with a set of predefined displayer DLLs which cannot be modified.
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.

More Information

For information on ITSmobile see Creating Mobile Applications with ITSmobile.

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

Installing SAPConsole 7.30

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 7.30 has been developed. This software is available:

- on the SAP Service Marketplace under *http://service.sap.com/patches →Browse our Download Catalog →SAP Frontend Components →SAP Console →SAP Console 7.30*
- on the Presentation DVD

Upgrade information

If you upgrade to SAPConsole 7.30 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 7.30.
- You also need a SAPGUI on the machine where the SAPConsole is installed. Then, you should first upgrade the latest SAP GUI and then install the standalone SAPConsole 7.30.

Prerequisites

You need the following prerequisites to install SAPConsole:

For a Telnet connection

Windows server 2003 or 2008 (32 or 64 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 18].

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 server 2003 or 2008 (32 or 64 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 Postinstallation Steps [Page 19].

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 ITSmobile versus Web-enabled SAPConsole [Page 9].

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 13].
- 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 SDN under `http://sdn.sap.com/irj/sdn/sap-gui`.

Result

You have installed the Standalone SAPConsole 7.30. Now you should configure SAPConsole 7.30 in the SAP Console Administrator [Page 22] by creating a profile to make sure that a SAP login screen or dialog is displayed when you execute `sapcnsl.exe`.

More Information

Best Practice to Start Working with SAPConsole 7.30 [Page 50]

For information on how to uninstall the SAP Console, see Uninstalling SAPConsole Locally from a Server [Page 17].

Installing SAPConsole Locally on the Server

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

Prerequisites

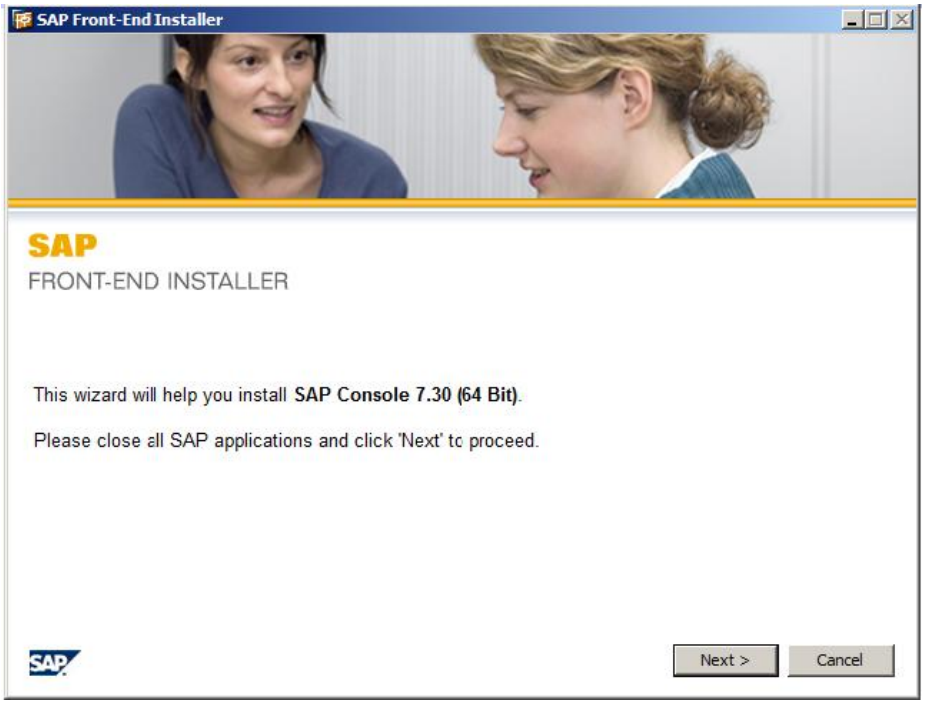
For the list of prerequisites, see Installing SAPConsole 7.30 [Page 11].

Procedure

Proceed as follows to install SAPConsole locally on the server:

1. Double-click the `sapconsole730x86_<patchnumber>.exe` or `sapconsole730x64_<patchnumber>.exe` file depending on the version (32 or 64 bit) you want to install .

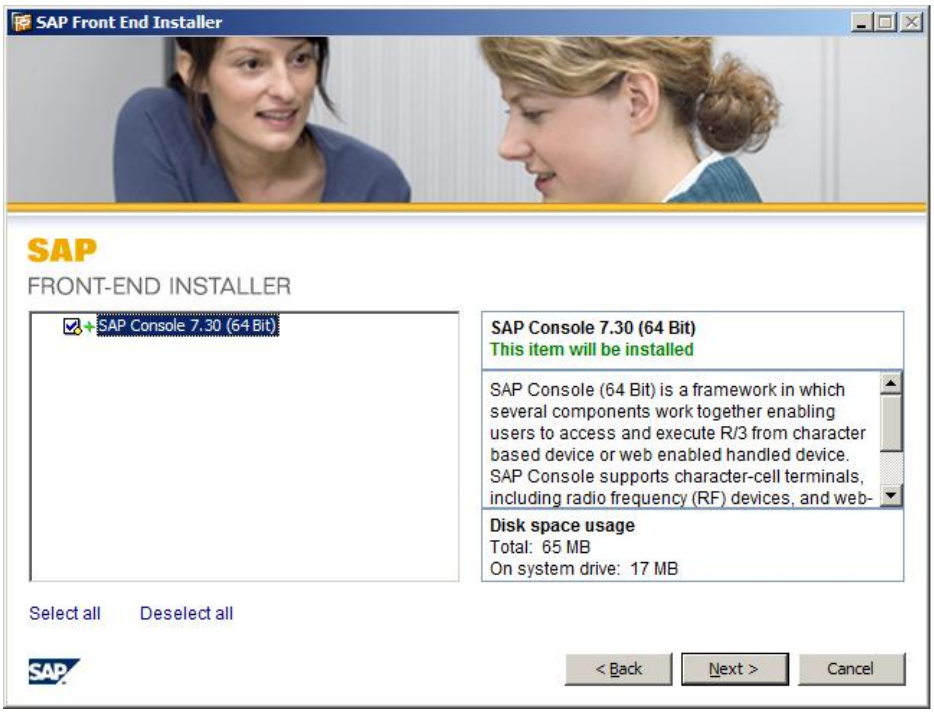
   The initial screen appears.



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

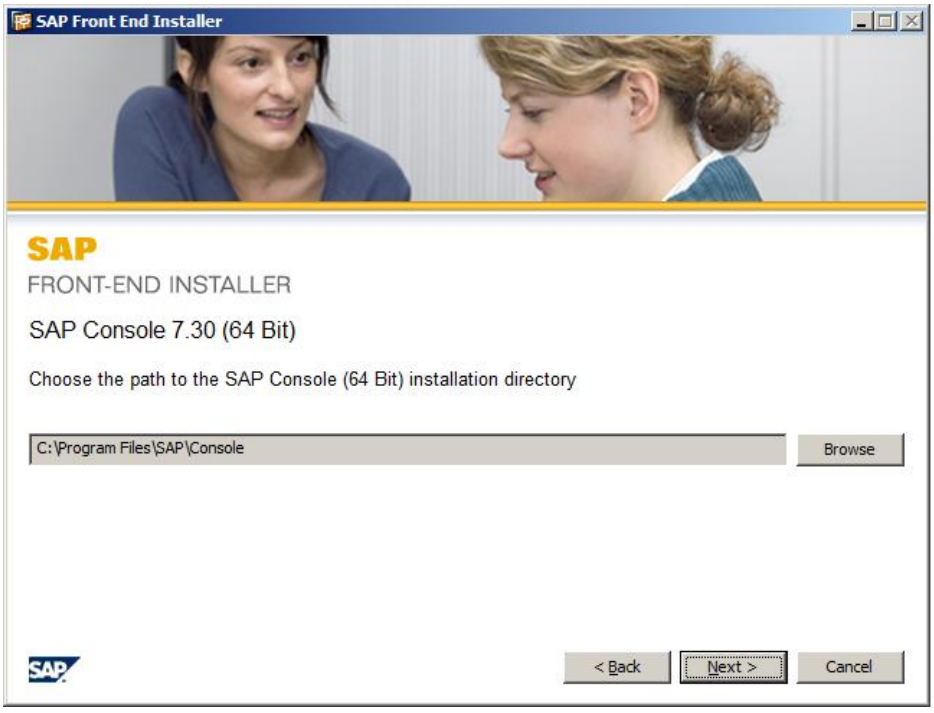
   The product selection screen appears.

3. Select *SAP Console*.



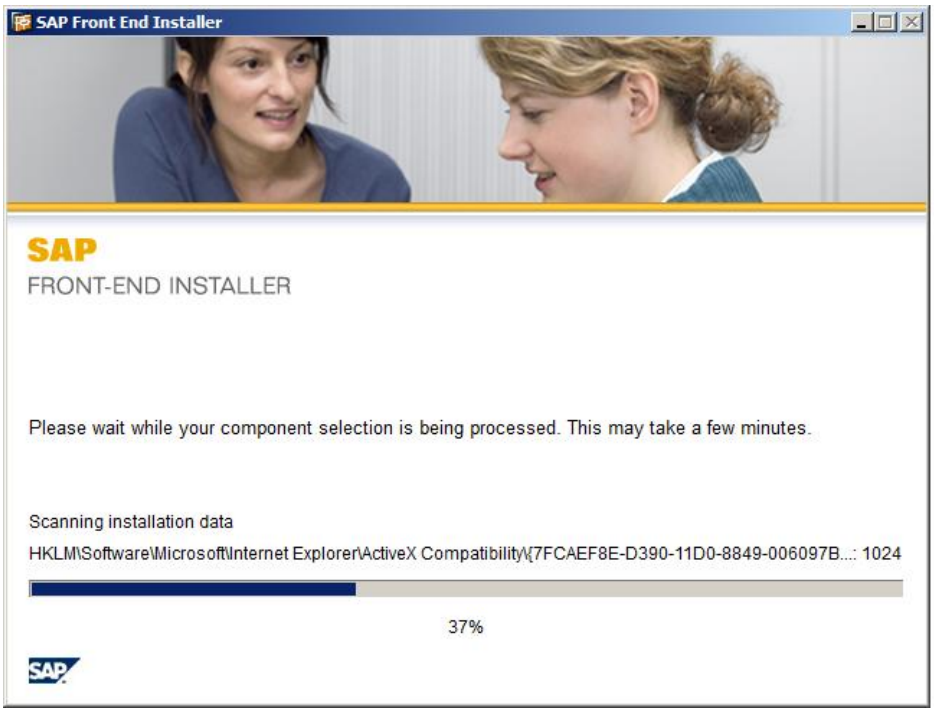
4. Choose *Next*.

   The system recommends a default folder for the installation.

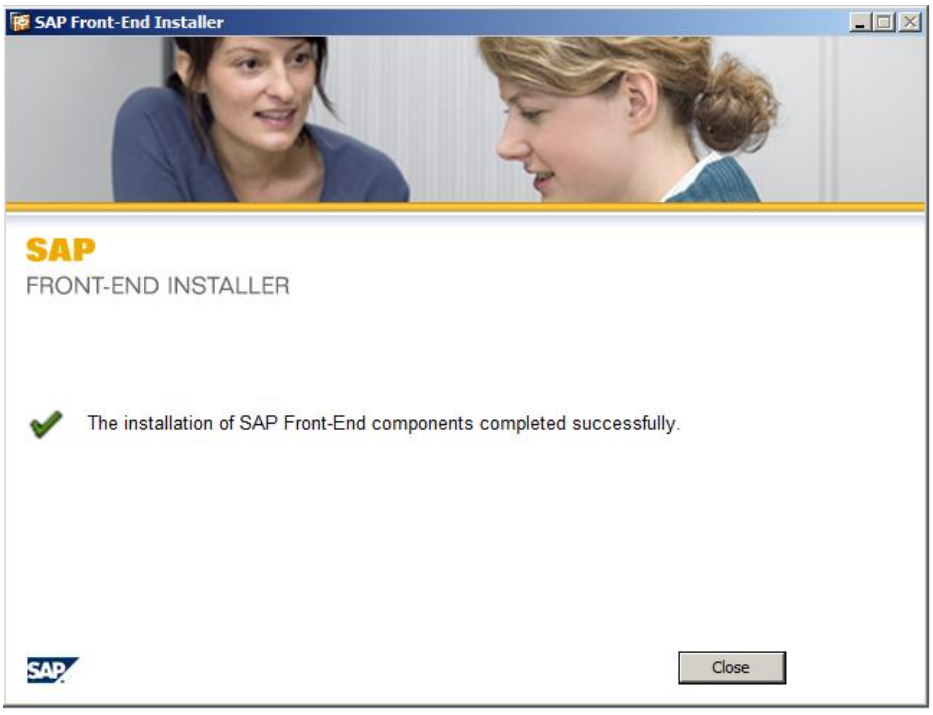


5. Accept the recommended folder or choose a different one.
6. Choose *Next*.

   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 48] 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 SDN under `http://sdn.sap.com/irj/sdn/sap-gui`.

More Information

For information on installing and configuring Telnet, see Installing and Configuring Telnet [Page 18].

For information on post-installation steps for web servers, see Web Server Postinstallation Steps [Page 19].

For information on the administration of SAP Console, see SAP Console Administrator [Page 22].

For information on how to uninstall the SAP Console, see Uninstalling SAPConsole Locally from a Server [Page 17].

Uninstalling SAPConsole Locally from a Server

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

Prerequisites

You have installed SAPConsole 7.30 [Page 11].

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 7.30`, and choose *Remove*.
1. Choose *Next*.

   The uninstallation is executed and will be confirmed by the respective popup.

Result

You have uninstalled SAP Console.

Installing and Configuring Telnet

Prerequisites

For the prerequisites, see section Best Practice [Page 50].

Proceed as follows to install the Telnet server and client:

Procedure

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:

For a list of supported Telnet servers refer to SAP note **1043241**.

Configuring the Telnet Server

You should configure the Telnet server to use `sapcnsl.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.

`sapcnsl.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 50].

Activities

As of SAPConsole release 7.10, SAPConsole with SAP J2EE Server is no longer supported. You should instead make use of the IIS web server which is part of the Windows 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. In the right frame, right-click *Default Web Site*.
7. Choose *New* → *Virtual Directory*.
8. Enter 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_sapcnsl.dll`, for example to `C:\Program Files\SAP\Console\isapi_sapcnsl.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_sapcnsl.dll`.

Configuring IIS7

Proceed as follows to configure the IIS7 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 *Sites.*
6. In the right frame, right-click *Default Web Site*.
7. Choose *Add Application*.
8. Enter the alias, for example, *SAP*.
9. Set up the Physical Path Directory, for example `C:\Program Files\SAP\Console`.
10. Choose *OK*.
11. In the left tree, select the root node.
12. In the *Features View*, choose *ISAPI and CGI restrictions*.
13. Right-click in the right frame.
14. Choose *Add*.
15. Browse to `isapi_sapcnsl.dll`, for example to `C:\Program Files (x86)\SAP\Console\isapi_sapcnsl.dll`.
16. Enter the description, for example, *WebSAPConsole*..
17. Mark *Allow extension path to execute*.
18. Choose *OK* and close the Internet Information Services window.
19. Start the WebSAPConsole via the URL `http://<host>/sap/isapi_sapcnsl.dll`.

Troubleshooting in IIS

Proceed as follows to troubleshoot in IIS:

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

- Check the advanced settings of the application pool regarding 32 and 64 bit.
- Check the identity control of the application pool.
- Check the recycling scheme of the application pool.
- So that not all applications are affected in case of failure, use different URLs (paths), for example *../sapconsole1/..* and *../sapconsole2/,* that have their own application pools and/or create a fail-over instance.

In general, most problems that come up refer to user authorizations 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.

SAP Console Administrator

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.*

If you have selected *Category* as control panel view, the SAPConsole Administrator can be found under *Appearance and Personalization*.

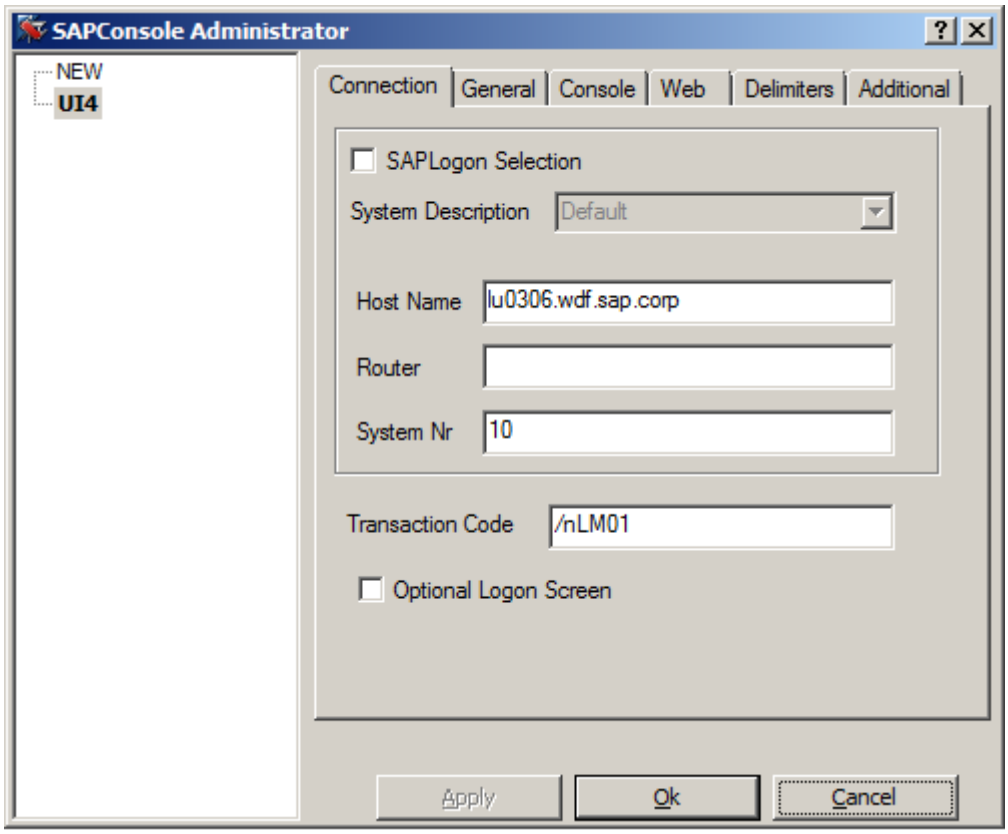
Activities

With the SAPConsole Administrator you can execute the following activities:

- Working with Profiles [Page 24]
- Defining System Connections [Page 27]
- Configuring General Settings [Page 29]
- Configuring Console Settings [Page 31]
- Configuring Web Settings [Page 33]
- Configuring Delimiter Settings [Page 34]

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*, *Delimiters* and *Additional*).



More Information

Best Practice to Start Working with SAPConsole 7.30 [Page 50]

Working with Profiles

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 (`sapcnsl.exe -p <profile_name>`). Therefore, if you want to run SAPConsole with a non-default profile, you just should use the parameter `-p`.

Example: `sapcnsl.exe -p H9B`

For more information on command line parameters, see Appendix A: Command Line Parameters [Page 39].

Procedure

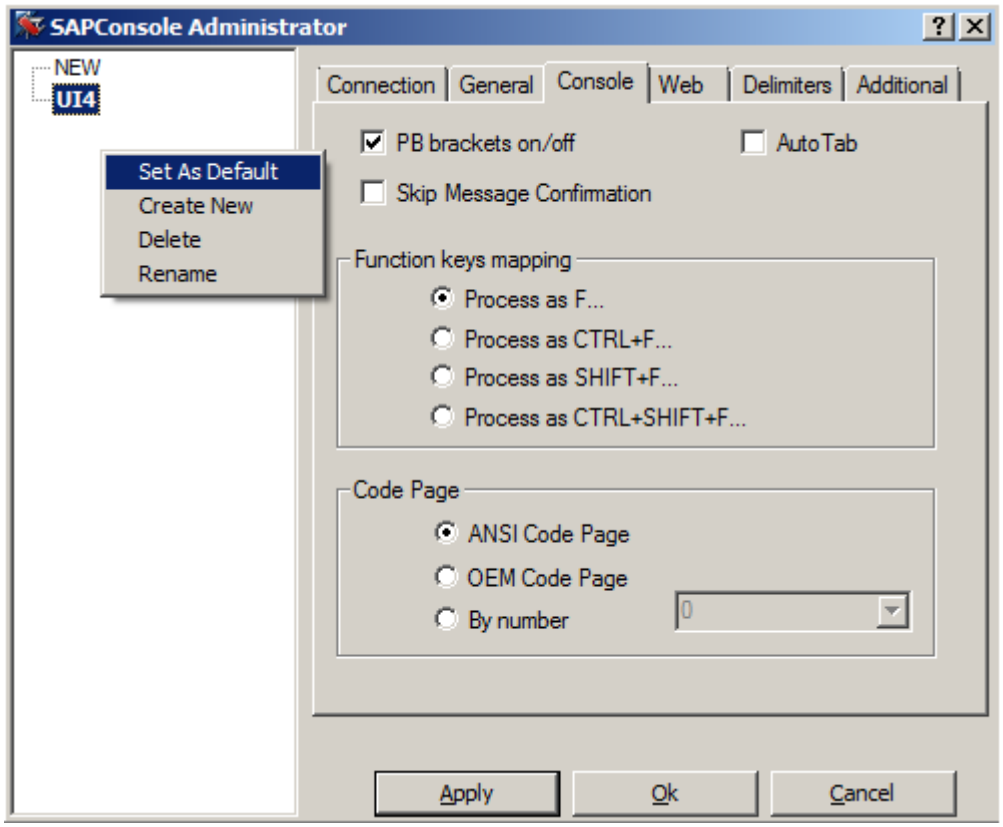
You can execute the following profile activities:

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: • *Connection* • *General* • *Console* • *Web* • *Delimiters*
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 *Create New*. 2. In the *Profile Name* field, enter a name and choose *OK*. 3. After you have configured the profile's settings, choose *Apply*. The system saves the profile. To create a profile based on an existing profile: 1. In the profile tree, right-click and choose *Create New*. 2. In the *Profile Name* field, enter a name and choose *OK*. 3. In the *From Template* field, choose the name of the profile on which to base the new profile. 4. Choose OK. 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 *Delete*.
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 *Apply*. The system saves the profile. To rename a profile: 1. Select the profile. 2. Right-click the profile and choose *Rename*. 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 *Set as default*. 2. The name of the profile is displayed in bold.

Example

The following example shows the profiles NEW and UI4 in the profile tree on the left-hand side. UI4 has been selected and you can see the connection data for system UI4. The context menu shows what activities can be executed for this profile.


SAPConsole Administrator
NEW
UI4
Set As Default
Create New
Delete
Rename
Connection
General
Console
Web
Delimiters
Additional
PB brackets on/off
AutoTab
Skip Message Confirmation
Function keys mapping
Process as F...
Process as CTRL+F...
Process as SHIFT+F...
Process as CTRL+SHIFT+F...
Code Page
ANSI Code Page
OEM Code Page
By number
0
Apply
Ok
Cancel

Defining System Connections

Prerequisites

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.

Like SAPLogon, the standalone SAPConsole 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`.

Procedure

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

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 SAP GUI.

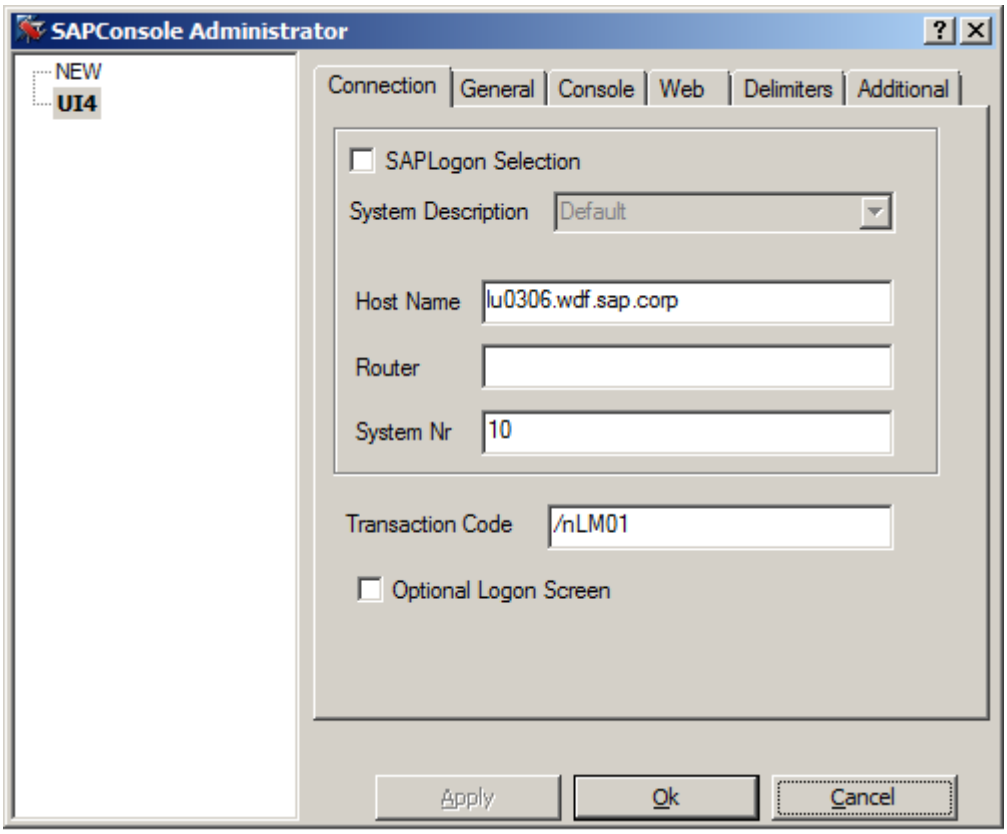
To use existing connection parameters from SAPLogon:

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).

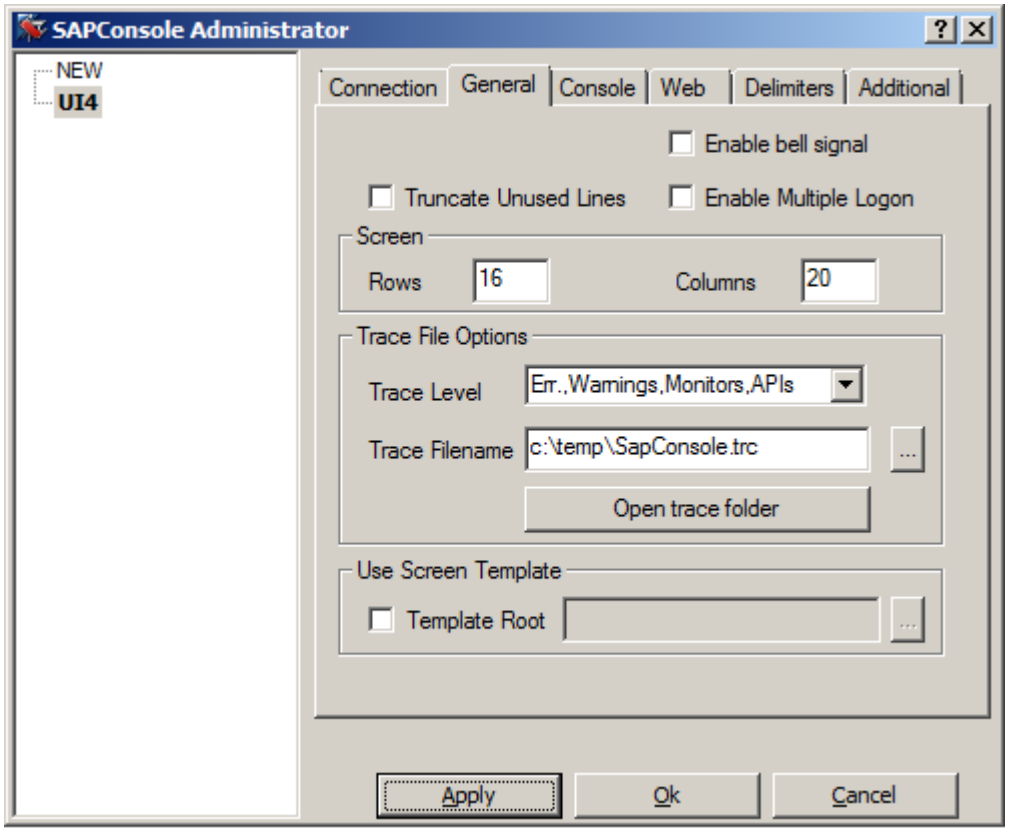
Proceed as follows to use the modifiable logon screen:

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

Configuring General Settings

Procedure

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:

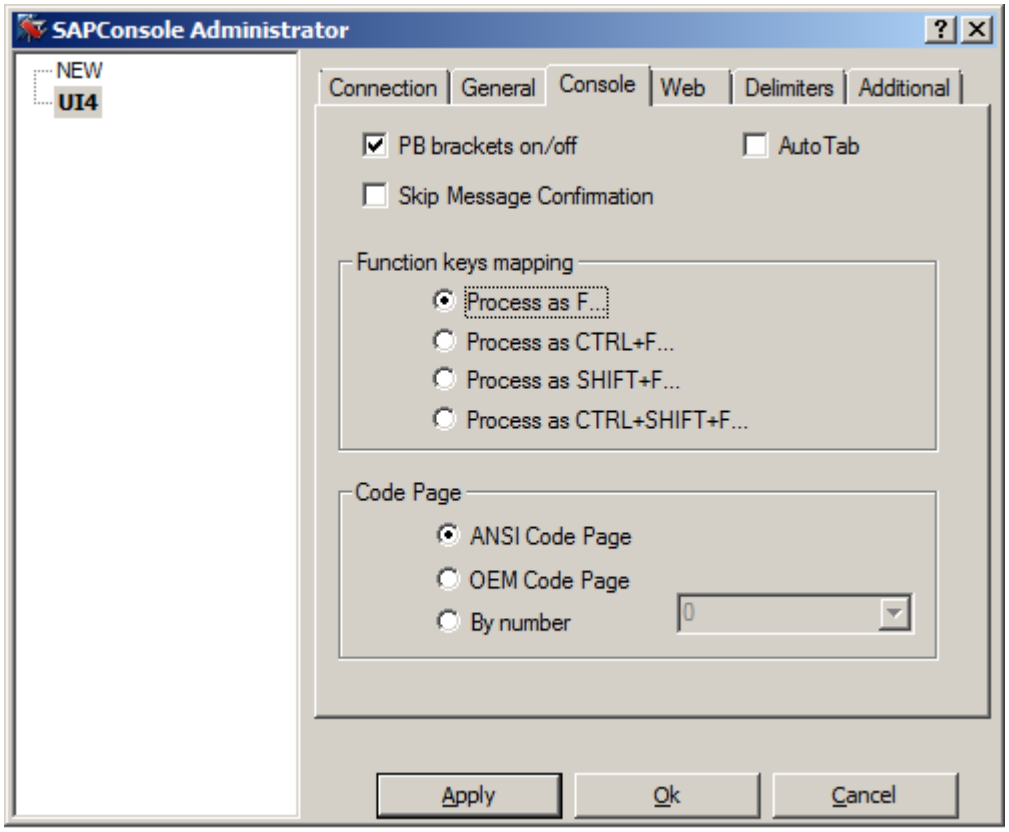
Field/Button	Description
Enable bell signal	Provides a bell sound upon receipt of an error message: • When using a telnet connection, the bell signal is only possible for SLnet and Georgia Softworks. • When using a HTTP connection, see Appendix D [Page 46].
Truncate Unused Lines	The ability to define whether unused lines (such as frames and empty lines) require truncation.
Permit multiple logon	Enables multiple logons to the same SAP backend system under the same user name.
Screen rows and columns	Allows you to configure the size of message screens.
Trace File Options	Allows you to create traces. Make sure that the trace file is writable by the server user.

	Concerning the trace file name, you can enter a file name or a path. Use a full path, if you do not know the current start path, for example, in case of a webserver service. The button *Open Trace Folder* will open the directory with the trace file(s). The trace levels are as follows: • No Trace • Errors • Errors, Warnings • Errors,Warnings,Monitors • Err.,Warnings,Monitors,APIs
Use Screen Template	Enables you to use predefined templates for some SAP screens (currently in test phase).

Configuring Console Settings

Procedure

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:

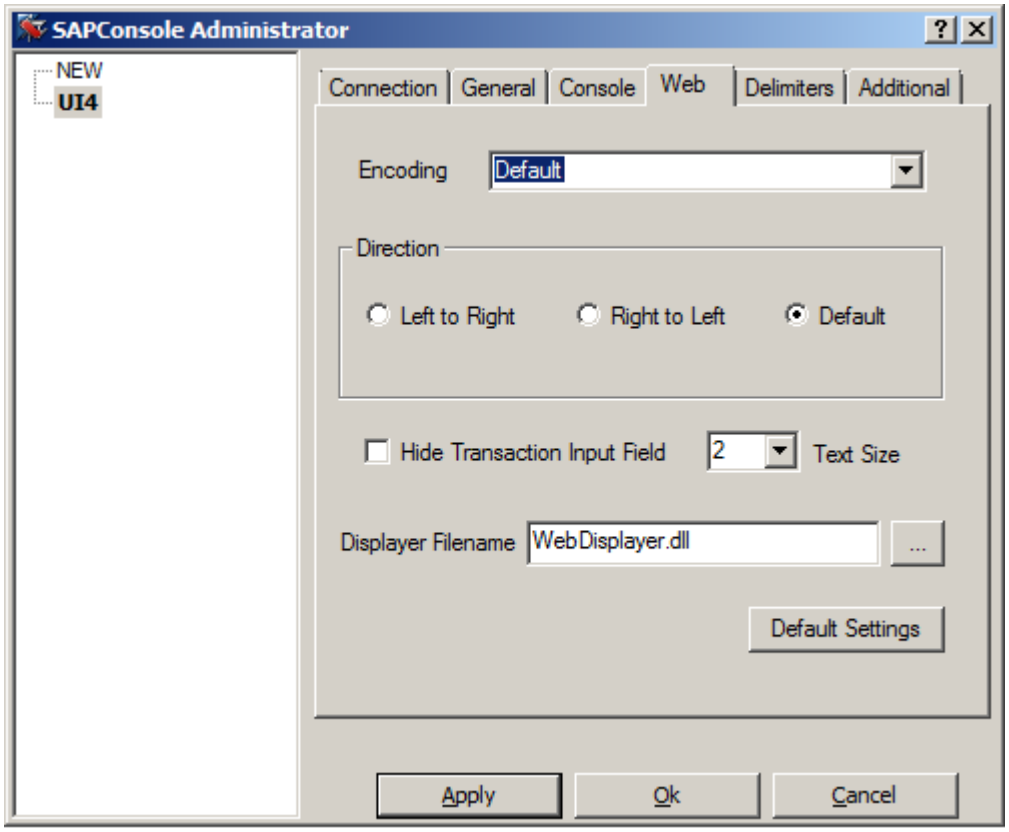
Field/Button	Description
PB brackets on/off	Enables you to conclude pushbuttons with/without brackets.
Auto Tab	Enables automatic cursor transition to the next input field, when the previous input field is completely filled.
Skip Message Confirmation	Allows for the automatic confirmation of SAP backend 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.
Function keys mapping	The option to remap the function keys that are sent from RF devices to the SAP backend system. • *Process as F* - no remapping • *Process as CTRL + F* - for example, F1 is substituted by Ctrl + F1 • *Process as SHIFT + F* - for example, F1 is substituted by Shift

	+ F1 • *Process as CTRL + SHIFT + F* - for example, F1 is substituted by Ctrl + Shift + F1
Code Page	Provides various character sets and language support: • *ANSI Code page* - the default ANSI code page • *OEM Code page* - the default OEM code page • *By number* - a specific code page number to be defined

Configuring Web Settings

Procedure

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



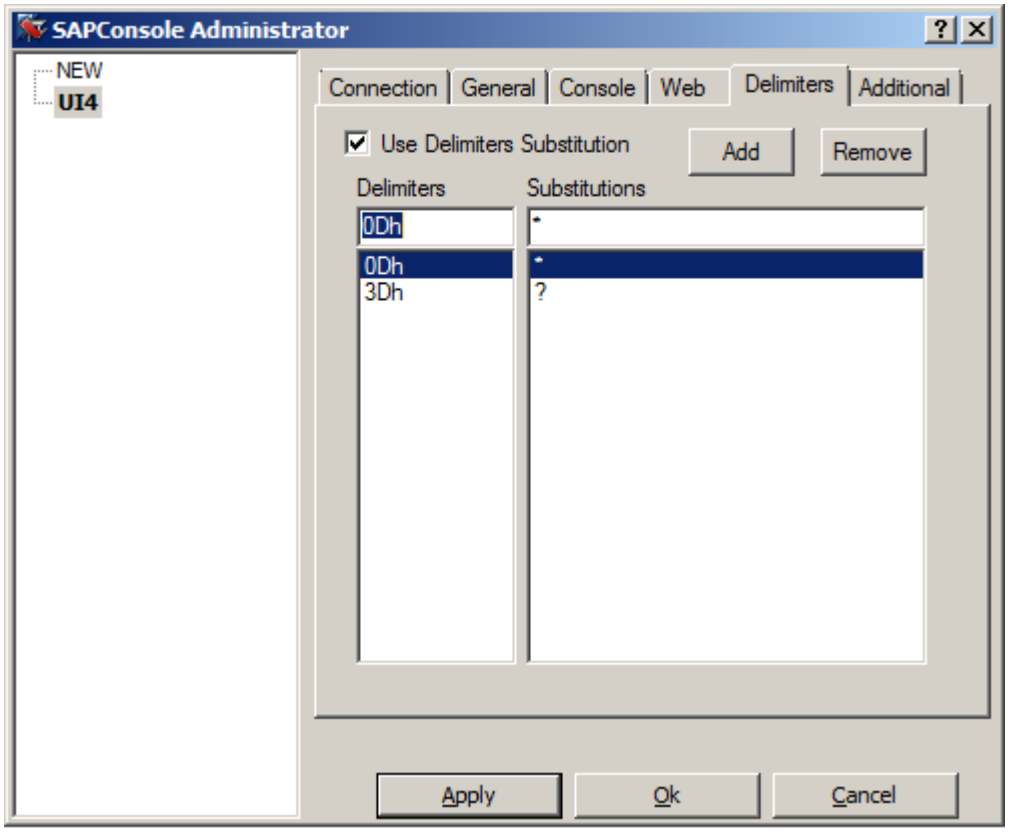
You can configure the following web settings for a profile:

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

Procedure

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



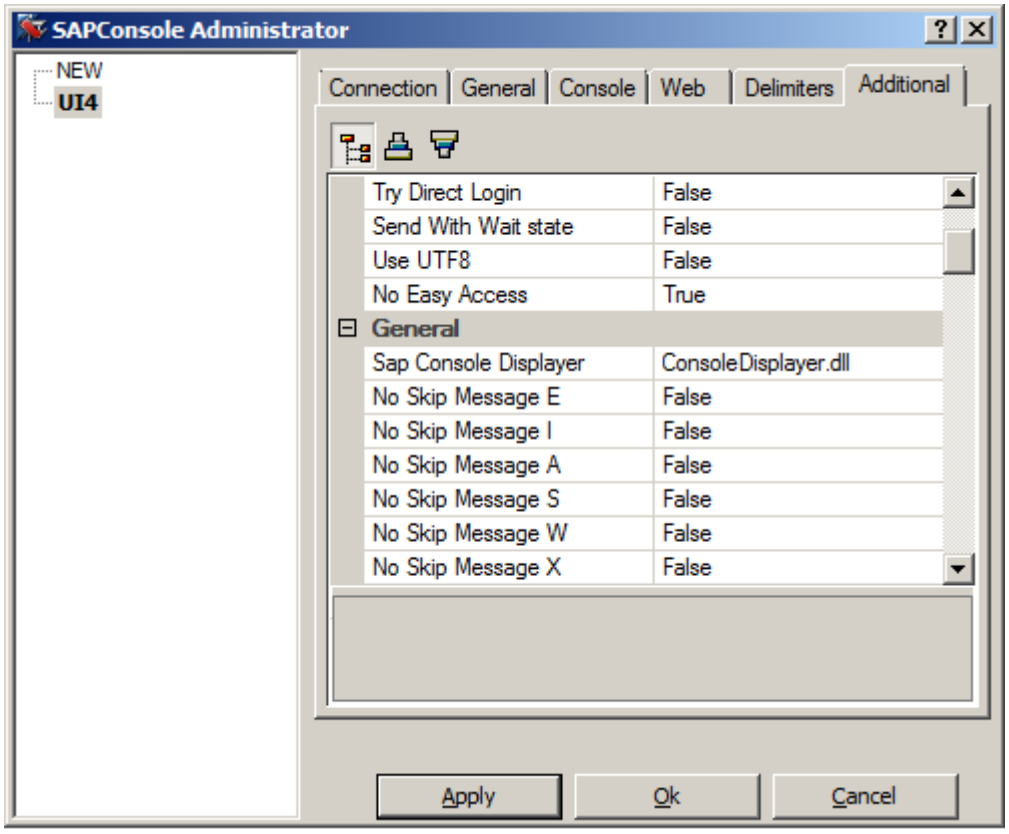
You can configure the following delimiter settings for a profile:

Field/Button	Description
Use Delimiter Substitution	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.

Configuring Additional Settings

Procedure

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

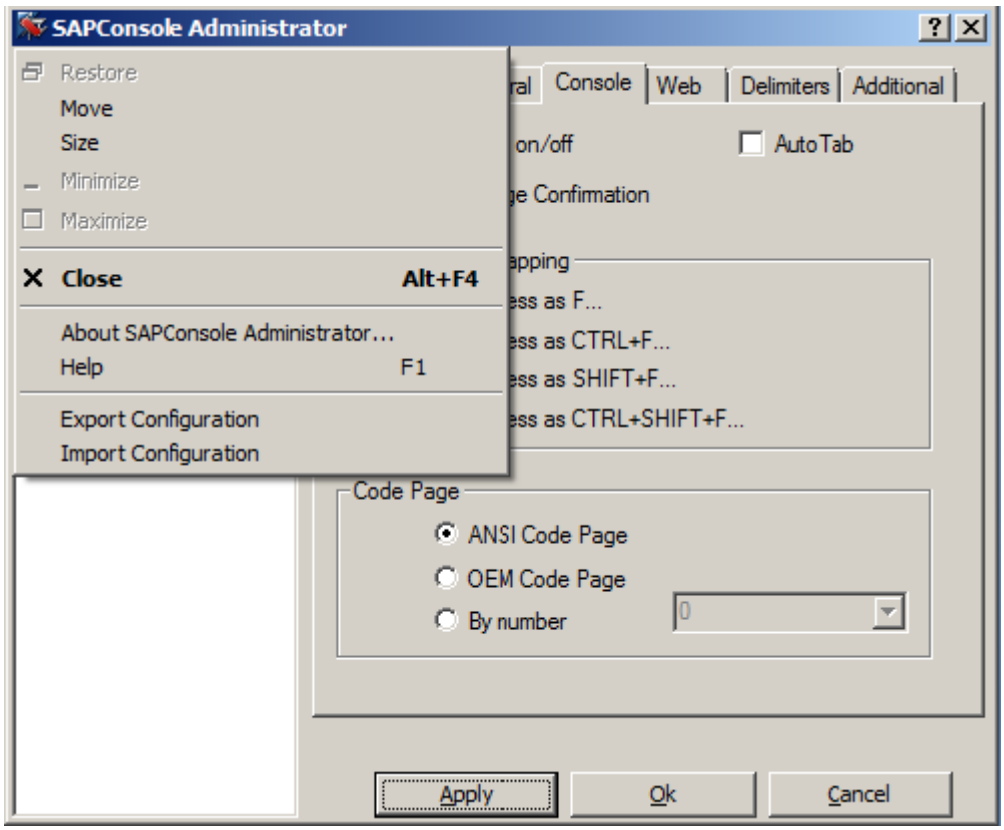


In this tab, all possible registry values are displayed in a readable format:

Field/Button	Description
Name of parameter	A short description will be displayed when clicking on a parameter name.

Import and Export Settings Procedure

This section describes the possibility to import and export SapConsole registry settings using the menu of the left-top icon of the SAPConsole Administrator:



You can use the following menu items for exporting and importing profiles:

Menu	Description
Export Configuration	Exports the current profile in a textual format. Since the format follows the ini-file structure, a proposal for the profile name is made with extension *.ini*.
Import Configuration	The above exported ini file can be imported.

This functionality can be helpful in transferring settings from one system (e.g. development) to another (e.g. production) or in case of support requests.

The *.ini-file created will have the following well known structure:

```
[UI4]
CtrlFieldIntensiveColor=#0000ff
CtrlFieldCheckedColor=#ff0000
CtrlFieldShadowColor=#c0c0c0
CtrlFieldBorderColor=#909cae
CtrlFieldBorderSize=0
TitleFieldColor=#9faccb
TitleFieldBorderSize=0
FrameBorderSize=1
LineColor=#d4e2ee
LineBorderSize=2
BodyColor=#ffffff
TextSize=2
FixedFontTextSize=3
CharSet=
TextColor=#000000
ScreenDirection=
ScreenWidth=100%
CharWidth=10
ButtonTrimSpaces=0
OnSubmitReturn=1
ShowButtonAsLink=0
ButtonColor=#c0c0c0
```

Preparing the RF Terminal for Users

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 39] 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.

Example

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

```
Sapcnsl.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:

```
sapcnsl.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_sapcnsl.dll?p=u9b

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

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

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

Appendix B: Specifying Escape Sequences

Procedure

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
```

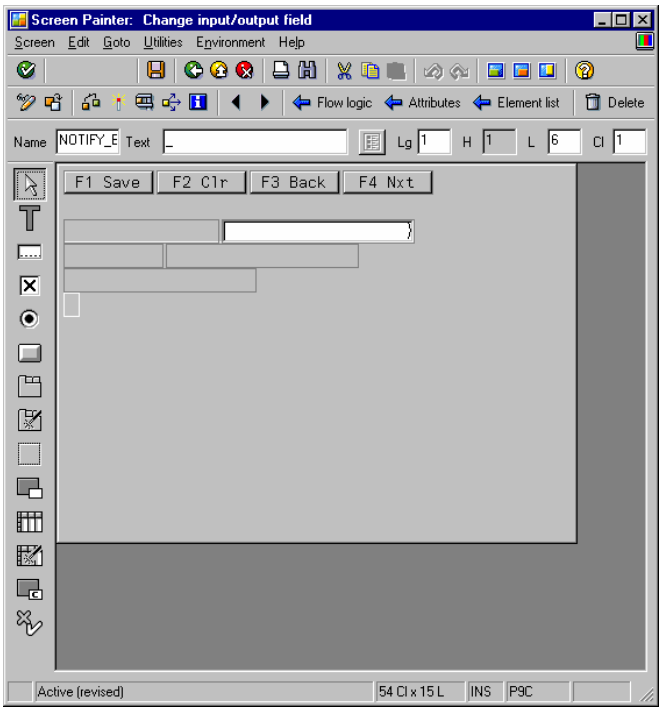
The definition of the variable NOTIFY_BELL_SIGNAL is numeric with one position, which allows the programmer to enter values between 1-9 (the number of "BEEP" sounds that you want to play). In this example, 3 has been assigned to the variable. This way you can send different numbers of bell signals and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

You also need to define in the screen layout a field NOTIFY_BELL_SIGNAL

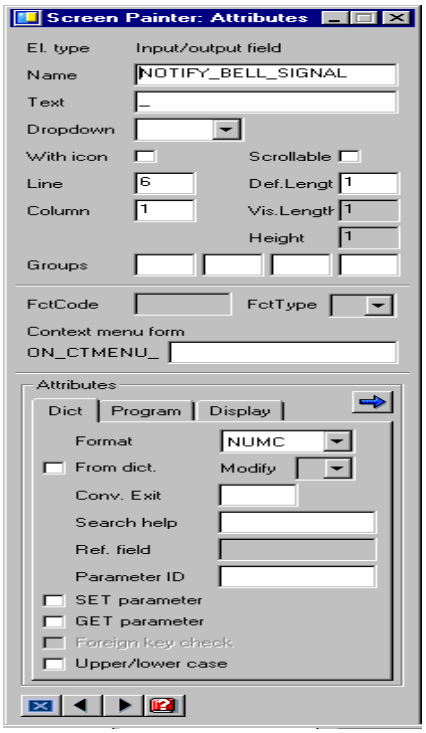
with the following characteristics:

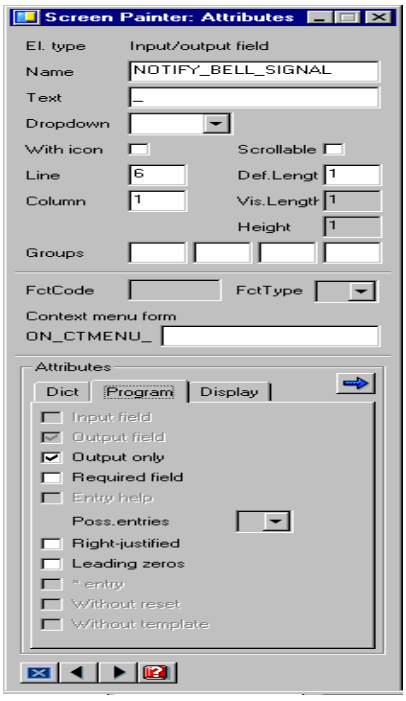
- Field length: one position.
- Field format: NUMC.
- The field is Output only.
- The field is visible, although nothing will be shown on the run since the bell signal is captured on its way to the screen, and the "beep" sound is played instead by the SAPConsole.

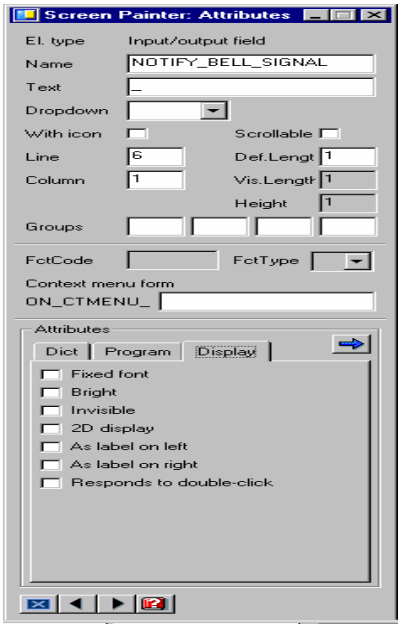
In the following screenshot, you can see the last field in the screen, defined accordingly:



In the next screenshot, 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.Lengt
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.Lengt
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.Lengt
1
Column
1
Vis.Lengt
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 (sapcnsl.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
     ```

     ```
     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\<profi
   le_name>\WebBeepMessageA

   HKEY_LOCAL_MACHINE\SOFTWARE\SAP\Ofek\SapConsole\Profiles\<profi
   le_name>\WebBeepMessageE

   HKEY_LOCAL_MACHINE\SOFTWARE\SAP\Ofek\SapConsole\Profiles\<profi
   le_name>\WebBeepMessageI

   HKEY_LOCAL_MACHINE\SOFTWARE\SAP\Ofek\SapConsole\Profiles\<profi
   le_name>\WebBeepMessageS

   HKEY_LOCAL_MACHINE\SOFTWARE\SAP\Ofek\SapConsole\Profiles\<profi
   le_name>\WebBeepMessageW
   ```

```
HKEY_LOCAL_MACHINE\SOFTWARE\SAP\Ofek\SapConsole\Profiles\<profi
le_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
<installation path>\ConnectionGuilib.dll	SAPConsole connection library
<installation path>\ConsoleDisplayer.dll	SAPConsole displayer for Telnet
<installation path>\IntermecDisplayer.dll	WebSAPConsole displayer for Intermec handhelds
<installation path>\isapi_sapcnsl.dll	WebSAPConsole API for IIS
<installation path>\sapcnsl.dll	SAPConsole runtime
<installation path>\sapcnsl.exe	SAPConsole command interpreter for Telnet
<installation path>\sapcpp47.dll	SAP basis CPP runtime
<installation path>\SymbolDisplayer.dll	WebSAPConsole displayer for Symbol handhelds
<installation path>\Trace.dll	WebSAPConsole trace
<installation path>\VoiceXMLDisplayer.dll	WebSAPConsole voice XML displayer transformer
<installation path>\WebDisplayer.dll	WebSAPConsole default displayer
<installation path>\xml71d.dll	SAP basis XML library
<installation path>\XMLDisplayer.dll	SAP basis XML displayer transformer
<installation path>\xtc21d.dll	SAP basis XML translation library
<installation path>\images\saplogo.gif	SAP logo
<installation path>\sounds\alert.wav	Alert sound
C:\Windows\system32\Profile.cpl	Control panel plugin for SAPConsole Administration

Appendix F: 32 versus 64 bit SAPConsole

The table below shows the main differences between SAPConsole 32 and 64 bit running on a windows 64 bit platform and accordingly the IIS 64 bit version.

Since on the Windows 32 bit platform only the 32 bit (web)SAPConsole can run, this combination is not further explained below.

Installation path 64 bit	C:\Program Files\SAP\Console\
Installation path 32 bit	C:\Program Files (x86)\SAP\Console
Installation image 64 bit	sapconsole730x64_<patchnumber>.exe
Installation image 32 bit	sapconsole730x86_<patchnumber>.exe
Registration path 64 bit	HLM\SOFTWARE\SAP\Ofek\SapConsole\Profiles
Registration path 32 bit	HLM\SOFTWARE\Wow6432Node\SAP\Ofek\SapConsole
App pool IIS7 64 bit	Enable 32-bit applications = FALSE
App pool IIS7 32 bit	Enable 32-bit applications = TRUE
App pool IIS6 64 bit	Nothing to do
App pool IIS6 32 bit	Enable32bitAppOnWin64 = TRUE
Administrator 64 bit	C:\Windows\System32
Administrator 32 bit	C:\Windows\SysWOW64

Best Practice to Start Working with SAPConsole 7.30

The fastest and easiest way to get the Standalone SAPConsole 7.30 working, is to execute the following tasks in the given order:

- Installing SAPConsole 7.30 [Page 11].
- Configure SAPConsole 7.30 in the SAP Console Administrator [Page 22] by creating a profile to make sure that a SAP login screen or dialog is displayed when you execute `sapcnsl.exe`.
- Install and configure the Installing and Configuring Telnet [Page 18] or Web Server Postinstallation Steps [Page 19].