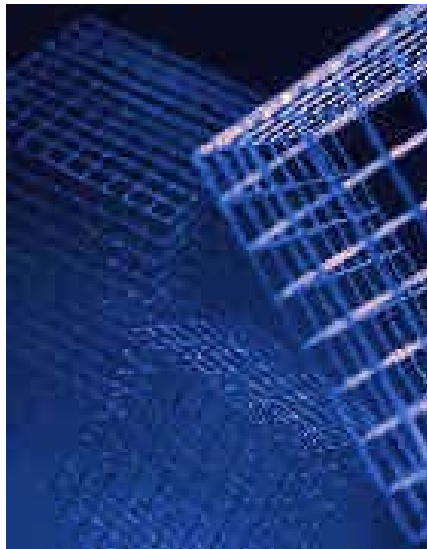


Web Tools Installation Guide: SAP DB



Version 7.3








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Icons

| Icon | Meaning |
|---|----------------|
|  | Caution |
|  | Example |
|  | Note |
|  | Recommendation |
|  | Syntax |

Typographic Conventions

| Type Style | Description |
|---------------------|--|
| <i>Example text</i> | Words or characters that appear on the screen. These include field names, screen titles, pushbuttons as well as menu names, paths and options. Cross-references to other documentation |
| Example text | Emphasized words or phrases in body text, titles of graphics and tables |
| EXAMPLE TEXT | Names of elements in the system. These include report names, program names, transaction codes, table names, and individual key words of a programming language, when surrounded by body text, for example, SELECT and INCLUDE. |
| Example text | Screen output. This includes file and directory names and their paths, messages, names of variables and parameters, source code as well as 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. Pointed brackets indicate that you replace these words and characters with appropriate entries. |
| EXAMPLE TEXT | Keys on the keyboard, for example, function keys (such as F2) or the ENTER key |

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Web Tools Installation Guide: SAP DB 7.3

Purpose

This documentation shows you how to install the SAP DB Web Tools software in Linux, UNIX and Windows NT/Windows 2000.



This installation guide is **not** applicable to standard installations of SAP systems. The installation of the SAP DB software relevant for SAP systems is described in SAP specific installation guides. For these guides see the SAP Library.

Introduction

- [Conventions \[Page 6\]](#)
- [Installation steps \[Page 8\]](#)
- [Structure of the SAP DB Web Tools \[Page 13\]](#)

Installation Description (General)

You can install the software on Linux, UNIX and Windows NT/Windows 2000 operating systems by following these steps:

1. [Installing the SAP DB Web Tools Software \[Page 14\]](#)
2. [Configuring and Starting the SAP DB Web Server \[Page 16\]](#)
or [Installing, Configuring and Starting the Apache Web Server \[Page 23\]](#)
or [Configuring and Starting the IIS \[Page 39\]](#)
3. [Configuring the Web Browser \[Page 39\]](#)

Installation Description

If you have opted for a combination of operating system and Web server, check the table below for the installation description relevant to your combination.

| | SAP DB Web Server | Apache Web Server | IIS |
|-------------------------|--|--|--|
| Linux | Linux: Installing the SAP DB Web Tools (SAP DB Web Server) [Page 9] | Linux: Installing the SAP DB Web Tools (Apache Web Server) [Page 9] | |
| UNIX | UNIX: Installing the SAP DB Web Tools (SAP DB Web Server) [Page 10] | UNIX: Installing the SAP DB Web Tools (Apache Web Server) [Page 11] | |
| Windows NT/Windows 2000 | Windows NT/Windows 2000: Installing the SAP DB Web Tools (SAP DB Web Server) [Page 12] | Windows NT/Windows 2000: Installing the SAP DB Web Tools (Apache Web Server) [Page 12] | Windows NT/Windows 2000: Installing the SAP DB Web Tools (IIS) [Page 13] |

Additional Information

[Using the SAP DB Web Tools \[Page 40\]](#)



Conventions

You must observe the following conventions when installing the SAP DB Web Tools:

- [Variables \[Page 7\]](#)

- [Operating System Architecture \[Page 7\]](#)
- [Software Versions \[Page 8\]](#)

Integration

[Web Tools Installation Guide: SAP DB 7.3 \[Page Error! Bookmark not defined.\]](#)



Variables

The table below contains a list of the variables used in the installation descriptions.

| | |
|-------------------------------|---|
| <os> | Name of the operating system in the path specifications |
| <arch> | Name of the operating system architecture in the path specifications |
| <version> | Version number of the software (SAP DB Web Tools or Apache Web Server) |
| <installation_path_web_tools> | Installation directory for SAP DB Web Tools |
| <installation_path_apache> | Installation directory for Apache Web Server |
| <installation_dependent_path> | Installation directory for the database software on the database server |
| <registry_path> | Registry path (Windows NT/Windows 2000) |
| <temp_path> | Temporary directory |
| <web_server> | Name of the Web server |
| <port> | Port |
| <DBM_userid> | DBM user |
| <DBM_password> | DBM password |
| <database_instance> | Name of the database instance |

Integration

[Conventions \[Page 6\]](#)



Operating System Architecture

The following table lists the operating system architectures supported.

| <os> | <arch> |
|---------|--------|
| aix | ppc |
| linux | i386 |
| solaris | sparc |
| tru64 | alpha |
| hpux | hppa |
| win | i386 |

Integration

[Conventions \[Page 6\]](#)



Software Versions

The following table shows the software versions for which the SAP DB Web Tools have been tested.

| | |
|--|--|
| Linux, UNIX, Windows NT 4.0/Windows 2000 | SAP DB Web Tools Version 7.3.00.06 |
| Linux, UNIX, Windows NT 4.0/Windows 2000 | SAP DB Web Server Version 7.3.00.06 |
| Linux, UNIX, Windows NT 4.0/Windows 2000 | Apache Web Server 1.3.12 Apache Web Server 1.3.14 |
| Windows NT 4.0/Windows 2000 | Internet Information Server |
| Linux, UNIX | Netscape 4.7.x |
| Windows NT 4.0/Windows 2000 | Internet Explorer 5.x Netscape 4.7x |

Integration

[Conventions \[Page 6\]](#)



Installation Steps

Conventions

[Variables \[Page 7\]](#), [Operating System Architecture \[Page 7\]](#)

Procedure

You can install the SAP DB Web Tools on the Linux, UNIX and Windows NT/Windows 2000 operating systems by following these steps:

1. Installing the software package *SAP DB Web Tools* .
This software package contains the software for the SAP DB Web Server and the software for the SAP DB Web Tools.
2. Configuring/starting the *SAP DB Web Server*.
Instead of the SAP DB Web Server, you can install, configure and start the *Apache Web Server*.
For Windows NT/Windows 2000, you can configure and start the *Internet Information Server (IIS)* as an alternative to the SAP DB Web Server or the Apache Web Server.
3. Configuring the Web Browser.

If you have opted for a combination of operating system and Web server, check the table below for the installation description relevant to your combination.

| | SAP DB Web Server | Apache Web Server | IIS |
|-------------------------|---|---|---|
| Linux | Linux: Installing the SAP DB Web Tools (SAP DB Web Server) [Page 9] | Linux: Installing the SAP DB Web Tools (Apache Web Server) [Page 9] | |
| UNIX | UNIX: Installing the SAP DB Web Tools (SAP DB Web Server) [Page 10] | UNIX: Installing the SAP DB Web Tools (Apache Web Server) [Page 11] | |
| Windows NT/Windows 2000 | Windows NT/Windows 2000: Installing the SAP | Windows NT/Windows 2000: Installing the SAP | Windows NT/Windows 2000: Installing the SAP |

| | | | |
|------|--|--|--|
| 2000 | DB Web Tools (SAP DB Web Server) [Page 12] | DB Web Tools (Apache Web Server) [Page 12] | DB Web Tools (IIS) [Page 13] |
|------|--|--|--|

Integration

[Web Tools Installation Guide: SAP DB 7.3 \[Page Error! Bookmark not defined.\]](#)



Linux: Installing the SAP DB Web Tools

Procedure

- You would like to use the SAP DB Web Server: [Linux: Installing the SAP DB Web Tools \(SAP DB Web Server\) \[Page 9\]](#)
- You would like to use the Apache Web Server: [Linux: Installing the SAP DB Web Tools \(Apache Web Server\) \[Page 9\]](#)

Integration

[Installation steps \[Page 8\]](#)



Linux: Installing the SAP DB Web Tools (SAP DB Web Server)

Use

Installing the SAP DB Web Tools using the SAP DB Web Server

Procedure

1. [Linux: Installing the SAP DB Web Tools Software \[Page 14\]](#)
2. [Linux: Configuring the SAP DB Web Server \[Page 17\]](#)
3. [Linux: Starting the SAP DB Web Server \[Page 20\]](#)
4. [Configuring the Web Browser \[Page 39\]](#)

Additional Information

[Linux: Using the SAP DB Web Tools \[Page 40\]](#)

[Notes on Using Web SQL \[Page 41\]](#)

[Linux: Deinstalling the SAP DB Web Tools \[Page 42\]](#)

Integration

[Linux: Installing the SAP DB Web Tools \[Page 9\]](#)



Linux: Installing the SAP DB Web Tools (Apache Web Server)

Use

Installing the SAP DB Web Tools using the Apache Web Server

Procedure

1. [Linux: Installing the SAP DB Web Tools Software \[Page 14\]](#)
2. [Linux: Unpacking the Apache Web Server Software \[Page 24\]](#)
3. [Linux: Installing the Apache Web Server \[Page 25\]](#)
4. [Linux: Modifying the Apache Module List \[Page 28\]](#)
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[Linux: Entering the FastCGI\(SAP DB\) Module in the List of Apache Modules to be Loaded \[Page 29\]](#)
[Linux: Creating a Link to the FastCGI\(SAP DB\) Executable \[Page 30\]](#)
5. [Linux: Extending the Alias Entries \[Page 30\]](#)
6. [Linux: Starting the Apache Web Server \[Page 37\]](#)
7. [Configuring the Web Browser \[Page 39\]](#)

Additional Information

[Linux: Using the SAP DB Web Tools \[Page 40\]](#)

[Notes on Using Web SQL \[Page 41\]](#)

[Linux: Deinstalling the SAP DB Web Tools \[Page 42\]](#)

Integration

[Linux: Installing the SAP DB Web Tools \[Page 9\]](#)



UNIX: Installing the SAP DB Web Tools

Procedure

- You would like to use the SAP DB Web Server: [UNIX: Installing the SAP DB WebTools \(SAP DB Web Server\) \[Page 10\]](#)
- You would like to use the Apache Web Server: [UNIX: Installing the SAP DB Web Tools \(Apache Web Server\) \[Page 11\]](#)

Integration

[Installation Steps \[Page 8\]](#)



UNIX: Installing the SAP DB WebTools (SAP DB Web Server)

Use

Installing the SAP DB Web Tools using the SAP DB Web Server

Procedure

5. [UNIX: Installing the SAP DB Web Tools-Software \[Page 15\]](#)
6. [UNIX: Configuring the SAP DB Web Server \[Page 18\]](#)
7. [UNIX: Starting the SAP DB Web Server \[Page 21\]](#)
8. [Configuring the Web Browser \[Page 39\]](#)

Additional Information

[UNIX: Using the SAP DB Web Tools \[Page 40\]](#)

[Notes on Using Web SQL \[Page 41\]](#)

Integration

[UNIX: Installing the SAP DB Web Tools \[Page 10\]](#)



UNIX: Installing the SAP DB Web Tools (Apache Web Server)

Use

Installing the SAP DB Web Tools using the Apache Web Server

Procedure

1. [UNIX: Installing the SAP DB Web Tools Software \[Page 15\]](#)
2. [UNIX: Unpacking the Apache Web Server Software \[Page 24\]](#)
3. [UNIX: Installing the Apache Web Server \[Page 26\]](#)
4. [UNIX: Modifying the Apache Module List \[Page 32\]](#)
[UNIX: Extending the List of Load Module Entries \[Page 32\]](#)
[UNIX: Entering the FastCGI\(SAP DB\) Module in the List of Apache Modules to be Loaded \[Page 33\]](#)
[UNIX: Creating a Link to the FastCGI\(SAP DB\) Executable \[Page 34\]](#)
5. [UNIX: Extending the Alias Entries \[Page 34\]](#)
6. [UNIX: Starting the Apache Web Server \[Page 38\]](#)
7. [Configuring the Web Browser \[Page 39\]](#)

Additional Information

[UNIX: Using the SAP DB Web Tools \[Page 40\]](#)

[Notes on Using Web SQL \[Page 41\]](#)

Integration

[UNIX: Installing the SAP DB Web Tools \[Page 10\]](#)



Windows NT/Windows 2000: Installing the SAP DB Web Tools

Procedure

- You would like to use the SAP DB Web Server: [Windows NT/Windows 2000: Installing the SAP DB Web Tools \(SAP DB Web Server\) \[Page 12\]](#)
- You would like to use the Apache Web Server: [Windows NT/Windows 2000: Installing the SAP DB Web Tools \(Apache Web Server\) \[Page 12\]](#)
- You would like to use the Internet Information Server(IIS): [Windows NT/Windows 2000: Installing the SAP DB Web Tools \(IIS\) \[Page 13\]](#)

Integration

[Installation steps \[Page 8\]](#)



Windows NT/Windows 2000: Installing the SAP DB Web Tools (SAP DB Web Server)

Use

Installing the SAP DB Web Tools using the SAP DB Web Server

Procedure

1. [Windows NT/Windows 2000: Installing the SAP DB Web Tools Software \[Page 15\]](#)
2. [Windows NT/Windows 2000: Configuring the SAP DB Web Server \[Page 19\]](#)
3. [Windows NT/Windows 2000: Starting the SAP DB Web Server \[Page 21\]](#)
4. [Configuring the Web Browser \[Page 39\]](#)

Additional Information

[Windows NT/Windows 2000: Using the SAP DB Web Tools \[Page 41\]](#)

[Notes on Using Web SQL \[Page 41\]](#)

Integration

[Windows NT/Windows 2000: Installing the SAP DB Web Tools \[Page 11\]](#)



Windows NT/Windows 2000: Installing the SAP DB Web Tools (Apache Web Server)

Use

Installing the SAP DB Web Tools using the Apache Web Server

Procedure

1. [Windows NT/Windows 2000: Installing the SAP DB Web Tools Software \[Page 15\]](#)
2. [Windows NT/Windows 2000: Installing the Apache Web Server \[Page 27\]](#)
3. [Windows NT/Windows 2000: Modifying the Apache Module List \[Page 36\]](#)
4. [Windows NT/Windows 2000: Installing the Apache Web Server Service \[Page 37\]](#)
5. [Windows NT/Windows 2000: Starting the Apache Web Server \[Page 38\]](#)
6. [Configuring the Web Browser \[Page 39\]](#)

Additional Information

[Windows NT/Windows 2000: Using the SAP DB Web Tools \[Page 41\]](#)

[Notes on Using Web SQL \[Page 41\]](#)

Integration

[Windows NT/Windows 2000: Installing the SAP DB Web Tools \[Page 11\]](#)



Windows NT/Windows 2000: Installing the SAP DB Web Tools (IIS)

Use

Installing the SAP DB Web Tools using the Internet Information Server (IIS)

Procedure

1. [Windows NT/Windows 2000: Installing the SAP DB Web Tools Software \[Page 15\]](#)
2. [Configuring and Starting the IIS \[Page 39\]](#)
3. [Configuring the Web Browser \[Page 39\]](#)

Additional Information

[Windows NT/Windows 2000: Using the SAP DB Web Tools \[Page 41\]](#)

[Notes on Using Web SQL \[Page 41\]](#)

Integration

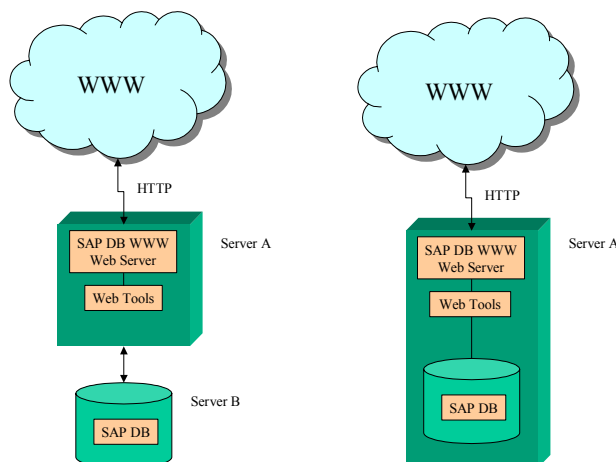
[Windows NT/Windows 2000: Installing the SAP DB Web Tools \[Page 11\]](#)



Structure of the SAP DB Web Tools

The SAP DB Web Tools are implemented as a Web server service and can be operated either with an SAP DB Web Server or with other common Web servers such as Apache or IIS.

The Web server services are installed together with the Web server on one computer. The database system can be installed either on the Web server computer or on another computer.



Integration

[Web Tools Installation Guide: SAP DB 7.3 \[Page Error! Bookmark not defined.\]](#)



Installing the SAP DB Web Tools Software

Procedure

- [Linux: Installing the SAP DB Web Tools Software \[Page 14\]](#)
- [UNIX: Installing the SAP DB Web Tools Software \[Page 15\]](#)
- [Windows NT/Windows 2000: Installing the SAP DB Web Tools Software \[Page 15\]](#)

Integration

[Web Tools Installation Guide: SAP DB 7.3 \[Page Error! Bookmark not defined.\]](#)



Linux: Installing the SAP DB Web Tools Software

Use

When you install the *SAP DB Web Tools* software package, the SAP DB Web Tools and the SAP DB Web Server are installed.

Conventions

[Variables \[Page 7\]](#), [Operating System Architecture \[Page 7\]](#)

Procedure using rpm package

1. Log onto your computer as the `root` user.
2. Copy the software package
SAP DB Web Tools (`sapdb-web-<os>-<arch>-<version>.rpm`)
to a local directory of your choice.
3. Install the SAP DB Web Tools. To do this, enter the following command:
`rpm -i sapdb-web-<os>-<arch>-<version>.rpm`

Procedure using tgz package

1. Log onto your computer as the `root` user.
2. Copy the software package
SAP DB Web Tools (`sapdb-webtools-<os>-<arch>-<version>.tgz`)
to a local directory of your choice.
3. Install the SAP DB Web Tools. To do this, enter the following command line:
`gzip -d sapdb-webtools-<os>-<arch>-<version>.tgz tar xf sapdb-webtools-<os>-<arch>-<version>.tar -/SDBINST`
4. Follow the instructions provided by the installation program.

Result

The SAP DB Web Tools and the SAP DB Web Server have been installed in the following directory:
<installation_path_web_tools>

Next Installation Step

[Configuring the SAP DB Web Server \[Page 17\]](#) or
[Unpacking the Apache Web Server Software \[Page 24\]](#)

Integration

[Installing the SAP DB Web Tools Software \[Page 14\]](#)



UNIX: Installing the SAP DB Web Tools Software

Use

When you install the *SAP DB Web Tools* software package, the SAP DB Web Tools and the SAP DB Web Server are installed.

Conventions

[Variables \[Page 7\]](#), [Operating System Architecture \[Page 7\]](#)

Procedure

5. Log onto your computer as the `root` user.
6. Copy the software package
SAP DB Web Tools (`sapdb-webtools-<os>-<arch>-<version>.tgz`)
to a local directory of your choice.
7. Install the SAP DB Web Tools. To do this, enter the following command line:
`gzip -d sapdb-webtools-<os>-<arch>-<version>.tgz tar xf sapdb-webtools-<os>-<arch>-<version>.tar -/SDBINST`
8. Follow the instructions provided by the installation program.

Result

The SAP DB Web Tools and the SAP DB Web Server have been installed in the following directory:
<installation_path_web_tools>

Next Installation Step

[Configuring the SAP DB Web Server \[Page 18\]](#) or
[Unpacking the Apache Web Server Software \[Page 24\]](#)

Integration

[Installing the SAP DB Web Tools Software \[Page 14\]](#)



Windows NT/Windows 2000: Installing the SAP DB Web Tools Software

Use

When you install the *SAP DB Web Tools* software package, the SAP DB Web Tools and the SAP DB Web Server are installed.

Conventions

[Variables \[Page 7\]](#), [Operating System Architecture \[Page 7\]](#)

Procedure

1. Log onto your computer as user *Administrator*.
2. Copy the software package *SAP DB Web Tools* (`sapdb-webtools-<os>-<arch>-<version>.tgz`) to a local directory of your choice.
3. Use the *WinZip* program to unpack the file `sapdb-webtools-<os>-<arch>-<version>.tgz` to a local directory of your choice.
4. Open a command prompt.
5. Go to the directory to which you unpacked the files.
6. Start the installation procedure. To do this, enter the following command:
`SDBINST.exe`
7. Follow the instructions provided by the installation program.

Result

The SAP DB Web Tools and the SAP DB Web Server have been installed in the following directory:
<installation_path_web_tools>

Next Installation Step

[Configuring the SAP DB Web Server \[Page 19\]](#) or
[Installing the Apache Web Server Software \[Page 27\]](#) or
[Configuring and Starting the IIS \[Page 39\]](#)

Integration

[Installing the SAP DB Web Tools Software \[Page 14\]](#)



Configuring and Starting the SAP DB Web Server

Features

On the **Linux** and **UNIX** operating system, you can use either the *SAP DB Web Server* or the *Apache Web Server* with the SAP DB Web Tools. If you decide to use the Apache Web Server, you can ignore the description of how to configure and start the SAP DB Web Server. In this case, see [Installing, Configuring and Starting the Apache Web Server \[Page 23\]](#) for more information.

With the **Windows NT/Windows 2000** operating system, you can use either the *SAP DB Web Server*, the *Apache Web Server* or the *Internet Information Server* (IIS). If you decide to use the Apache Web Server or the IIS, you can ignore the description of how to configure and start the SAP DB Web Server. In this case, see [Installing, Configuring and Starting the Apache Web Server \[Page 23\]](#) or [Configuring and Starting the IIS \[Page 39\]](#) for more information.

Procedure

- Linux: [Configuring the SAP DB Web Server \[Page 17\]](#), [Starting the SAP DB Web Server \[Page 20\]](#)
- Windows NT/Windows 2000: [Configuring the SAP DB Web Server \[Page 19\]](#), [Starting the SAP DB Web Server \[Page 21\]](#)
- UNIX: [Configuring the SAP DB Web Server \[Page 18\]](#), [Starting the SAP DB Web Server \[Page 21\]](#)

Integration

[Web Tools Installation Guide: SAP DB 7.3 \[Page Error! Bookmark not defined.\]](#)



Linux: Configuring the SAP DB Web Server

Use

You can configure the SAP DB Web Server in the SAP DB Web Server configuration file `/usr/spool/sql/ini/WebAgent73.ini`

You can specify the configuration file of your choice when [starting the SAP DB Web Server \[Page 20\]](#).

Prerequisites

[Installing the SAP DB Web Tools Software \[Page 14\]](#)

you are logged on with the `root` user.

Conventions

[Variables \[Page 7\]](#), [Operating System Architecture \[Page 7\]](#)

Procedure

Section [HTTP] of the `WebAgent73.ini` configuration file contains the following entries:

```
Port=85
Threading=1
Browsable=0
LogRequests=1
DocumentRoot=<installation_path_web_tools>/Documents
DefaultDocument=index.html
MimeTypeFile=<installation_path_web_tools>/mime.types
LogDirectory=<temp_path>
MaxThreads=100
```

Port

Set the port address of your choice for the SAP DB Web Server.

LogRequests

You can determine whether each access via HTTP should be logged or not.

- 1: HTTP access is logged
- 0: HTTP access is not logged

LogDirectory

If you have set the `LogRequest` to log HTTP access, the SAP DB Web Server accesses are logged in the files `httperr.log` and `httpreq.log`.

This log file is written to the directory specified in `LogDirectory`.

MaxThreads

You can determine the maximum number of threads that can be used to process the SAP DB Web Server accesses. The number of threads specified here is created as a thread pool when the SAP DB Web Server is started.

Next Installation Step

[Starting the SAP DB Web Server \[Page 20\]](#)

Integration

[Configuring and Starting the SAP DB Web Server \[Page 16\]](#)



UNIX: Configuring the SAP DB Web Server

Use

You can configure the SAP DB Web Server in the SAP DB Web Server configuration file `/usr/spool/sql/ini/WebAgent73.ini`.

You can specify the configuration file of your choice when [starting the SAP DB Web Server \[Page 21\]](#).

Prerequisites

[Installing the SAP DB Web Tools Software \[Page 15\]](#)

you are logged on with the `root` user.

Conventions

[Variables \[Page 7\]](#), [Operating System Architecture \[Page 7\]](#)

Procedure

Section [HTTP] of the `WebAgent73.ini` configuration file contains the following entries:

```
Port=85
Threading=1
Browsable=0
LogRequests=1
DocumentRoot=<installation_path_web_tools>/Documents
DefaultDocument=index.html
MimeTypeFile=<installation_path_web_tools>/mime.types
LogDirectory=<temp_path>
MaxThreads=100
```

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You can determine the maximum number of threads that can be used to process the SAP DB Web Server accesses. The number of threads specified here is created as a thread pool when the SAP DB Web Server is started.

Next Installation Step

[Starting the SAP DB Web Server \[Page 21\]](#)

Integration

[Configuring and Starting the SAP DB Web Server \[Page 16\]](#)



Windows NT/Windows 2000: Configuring the SAP DB Web Server

Use

You can configure the SAP DB Web Server in the registry, in registry path *HKEY_LOCAL_MACHINE\SOFTWARE\SAP\SAP DBTech\WebAgent73\HTTP*.

You can specify the registry path for the configuration required when [starting the SAP DB Web Server \[Page 21\]](#).

Prerequisites

[Installing the SAP DB Web Tools Software \[Page 15\]](#)

You are logged on as user *Administrator*.

Conventions

[Variables \[Page 7\]](#), [Operating System Architecture \[Page 7\]](#)

Procedure

The registry path *HKEY_LOCAL_MACHINE\SOFTWARE\SAP\SAP DBTech\WebAgent73\HTTP* contains the following entries:

```
Port=85
Threading=1
Browsable=0
LogRequests=1
DocumentRoot=<installation_path_web_tools>/Documents
DefaultDocument=index.html
MimeTypeFile=<installation_path_web_tools>/mime.types
LogDirectory=<temp_path>
MaxThreads=100
```

Port

Set the port address of your choice for the SAP DB Web Server.

LogRequests

You can determine whether each access via HTTP should be logged or not.

- 1: HTTP access is logged
- 0: HTTP access is not logged

LogDirectory

If you have set the `LogRequest` to log HTTP access, the SAP DB Web Server accesses are logged in the files `httperr.log` and `httpreq.log`.

This log file is written to the directory specified in `LogDirectory`.

MaxThreads

You can determine the maximum number of threads that can be used to process the SAP DB Web Server accesses. The number of threads specified here is created as a thread pool when the SAP DB Web Server is started.

Next Installation Step

[Starting the SAP DB Web Server \[Page 21\]](#)

Integration

[Configuring and Starting the SAP DB Web Server \[Page 16\]](#)



Linux: Starting the SAP DB Web Server

Prerequisites

[Configuring the SAP DB Web Server \[Page 17\]](#)

Conventions

[Variables \[Page 7\]](#), [Operating System Architecture \[Page 7\]](#)

Procedure

Start the SAP DB Web Server as follows:

1. Set the environment variable `LD_LIBRARY_PATH`. Enter the following command:
`export LD_LIBRARY_PATH=<installation_path_web_tools>/lib`
2. Go to directory `<installation_path_web_tools>/pgm`
3. Enter the following command: `./wahttp`

You can specify the configuration file of your choice when starting the SAP DB Web Server with `wahttp`. You have the following options here:

- Enter the call parameter `-f <file>`
- Entry in file `<installation_path_web_tools>/pgm/wahttp.conf`
If you do not enter the `wahttp` call parameter `-f`, then the configuration file defined in the file `wahttp.conf` is used.
Default value for configuration file: `/usr/spool/sql/ini/WebAgent73.ini`

Call Parameter

You can use the following call parameters when starting the SAP DB Web Server:

`wahttp [-f <file>] [-h]`

- `-f <file>`: you can specify a configuration file other than `WebAgent73.ini`.
- `-h`: you can display all call parameters.

Result

When you start the SAP DB Web Server, the SAP DB Web Tools are automatically made available as Web Server Services.

SAP DB Web Server accesses are logged if you have enabled logging ([Configuring the SAP DB Web Server \[Page 17\]](#)).

Next Installation Step

[Configuring the Web Browser \[Page 39\]](#)

Integration

[Configuring and Starting the SAP DB Web Server \[Page 16\]](#)



UNIX: Starting the SAP DB Web Server

Prerequisites

[Configuring the SAP DB Web Server \[Page 18\]](#)

Conventions

[Variables \[Page 7\]](#), [Operating System Architecture \[Page 7\]](#)

Procedure

Start the SAP DB Web Server as follows:

1. Set the environment variable `LD_LIBRARY_PATH`. Enter the following command:
`export LD_LIBRARY_PATH=<installation_path_web_tools>/lib`
2. Go to directory `<installation_path_web_tools>/pgm`
3. Enter the following command: `./wahttp`

You can specify the configuration file of your choice when starting the SAP DB Web Server with `wahttp`. You have the following options here:

- Enter the call parameter `-f <file>`
- Entry in file `<installation_path_web_tools>/pgm/wahttp.conf`
If you do not enter the `wahttp` call parameter `-f`, then the configuration file defined in the file `wahttp.conf` is used.
Default value for configuration file: `/usr/spool/sql/ini/WebAgent73.ini`

Call Parameters

You can use the following call parameters when starting the SAP DB Web Server:

`wahttp [-f <file>] [-h]`

- `-f <file>`: you can specify a configuration file other than `WebAgent73.ini`.
- `-h`: you can display all call parameters.

Result

When you start the SAP DB Web Server, the SAP DB Web Tools are automatically made available as Web Server Services.

SAP DB Web Server accesses are logged if you have enabled logging ([Configuring the SAP DB Web Server \[Page 18\]](#)).

Next Installation Step

[Configuring the Web Browser \[Page 39\]](#)

Integration

[Configuring and Starting des SAP DB Web Server \[Page 16\]](#)



Windows NT/Windows 2000: Starting the SAP DB Web Server

Prerequisites

[Configuring the SAP DB Web Server \[Page 19\]](#)

Conventions

[Variables \[Page 7\]](#), [Operating System Architecture \[Page 7\]](#)

Procedure

You can start the SAP DB Web Server either directly or as a service.

To do this, use the file `wahttp.exe` with the appropriate call parameter and, if required, the command for starting the service.

You can specify the registry path for the configuration required when starting the SAP DB Web Server. You have the following options here:

- Enter the `wahttp` call parameter `-f <registry_path>`
- Entry in file `<installation_path_web_tools>/pgm/wahttp.conf`
If you do not enter the call parameter `-f`, then the registry path for the configuration defined in the file `wahttp.conf` is used.
Default value in `wahttp.conf`: `SOFTWARE\SAP\SAP DBTech\WebAgent73`
If you do not change the default value, then the configuration entries in the following registry path are used:
`HKEY_LOCAL_MACHINE\SOFTWARE\SAP\SAP DBTech\WebAgent73\HTTP`.
If you do change the default value `SOFTWARE\SAP\SAP DBTech\WebAgent73`, then you must ensure that the path you specify leads to a section containing the subsection `HTTP`.

Call Parameter

You can use the following call parameters for the SAP DB Web Server:

`wahttp [-i] [-u] [-d] [-f <file>] [-h]`

- `-i`: Installing the SAP DB Web Server Service.
- `-u`: Deleting the SAP DB Web Server Service.
- `-d`: Starting the SAP DB Web Server directly (using `wahttp.exe`).
- `-f <registry_path>`: you can define a registry path other than `HKEY_LOCAL_MACHINE\SOFTWARE\SAP\SAP DBTech\WebAgent73\HTTP` for the configuration.
To do so, you must define the changed path area `SOFTWARE\SAP\SAP DBTech\WebAgent73` as the `<registry_path>`. The path you enter must lead to a section containing the subsection `HTTP`.
- `-h`: you can display all call parameters.

Starting the SAP DB Web Server Directly

Start the SAP DB Web Server as follows:

1. Go to directory `<installation_path_web_tools>/pgm`
2. Enter the following command: `wahttp.exe -d`

Starting the SAP DB Web Server as a Service

1. Follow these steps to register the SAP DB Web Server as the service `sapdbwww`:
Go to directory `<installation_path_web_tools>/pgm`
Enter this command: `wahttp.exe -i`
You only need to register the service `sapdbwww` once.
2. Start the SAP DB Web Server Service `sapdbwww`.
To do this, enter the following command:
`net start sapdbwww`

You can stop the SAP DB Web Server-Service `sapdbwww` by entering this command:
`net stop sapdbwww`

You can delete the SAP DB Web Server Service `sapdbwww` by entering this command:
`<installation_path_web_tools>/pgm/wahttp.exe -u`

Result

When you start the SAP DB Web Server, the SAP DB Web Tools are automatically made available as Web Server Services.

SAP DB Web Server accesses are logged if you have enabled logging ([Configuring the SAP DB Web Server \[Page 19\]](#)).

Next Installation Step

[Configuring the Web Browser \[Page 39\]](#)

Integration

[Configuring and Starting the SAP DB Web Server \[Page 16\]](#)



Installing, Configuring, and Starting the Apache Web Server

Features

On the **Linux** and **UNIX** operating systems, you can use either the *SAP DB Web Server* or the *Apache Web Server* with the SAP DB Web Tools. If you decide to use the SAP DB Web Server, you can ignore the description of how to install, configure and start the Apache Web Server. In this case, please see [Configuring and Starting the SAP DB Web Server \[Page 16\]](#) for more detailed information.

With the **Windows NT/Windows 2000** operating system, you can use either the *SAP DB Web Server*, the *Apache Web Server* or the *Internet Information Server (IIS)*. If you decide to use the SAP DB Web Server or the IIS, you can ignore the description of how to install, configure and start the Apache Web Server. In this case, see [Configuring and Starting the SAP DB Web Server \[Page 16\]](#) or [Configuring and Starting the IIS \[Page 39\]](#) for more information.

Procedure

- Linux: [Unpacking the Apache Web Server Software \[Page 24\]](#), [Installing the Apache Web Server \[Page 25\]](#), [Configuring the Apache Web Server \[Page 27\]](#), [Starting the Apache Web Server \[Page 37\]](#)
- UNIX: [Unpacking the Apache Web Server Software \[Page 24\]](#), [Installing the Apache Web Server \[Page 26\]](#), [Configuring the Apache Web Server \[Page 31\]](#), [Starting the Apache Web Server \[Page 38\]](#)
- Windows NT/ Windows 2000: [Installing the Apache Web Server \[Page 27\]](#), [Configuring the Apache Web Server \[Page 35\]](#), [Starting the Apache Web Server \[Page 38\]](#)

You can find further information on Apache software at: <http://www.apache.org>.

Integration

[Web Tools Installation Guide: SAP DB 7.3 \[Page Error! Bookmark not defined.\]](#)



Linux: Unpacking the Apache Web Server Software

Use

You can use either the *SAP DB Web Server* or the *Apache Web Server* with the SAP DB Web Tools. If you decide to use the SAP DB Web Server, you can ignore the description of how to install, configure and start the Apache Web Server. In this case, please see [Configuring the SAP DB Web Server \[Page 17\]](#) for more detailed information.

Prerequisites

[Installing the SAP DB Web Tools Software \[Page 14\]](#)
you are logged on with the `root` user.

Conventions

[Variables \[Page 7\]](#), [Operating System Architecture \[Page 7\]](#)

Procedure

1. In the Web browser, select the software package you require for the *Apache Web Server*.
`http://httpd.apache.org/dist/apache_<version>.tar.gz`
2. Copy the software package to a directory on your computer.
3. Decompress the file `apache_<version>.tar.gz`. Enter the following command:

```
gzip -d apache_<version>.tar.gz
```

The file `apache_<version>.tar` is then created.
4. Unpack the software with `tar`. Enter the following command:

```
tar xf apache_<version>.tar
```

Result

The files required for installation are unpacked to the directory `apache_<version>`.

Next Installation Step

[Installing the Apache Web Server \[Page 25\]](#)

Integration

[Installing, Configuring, and Starting the Apache Web Server \[Page 23\]](#)



UNIX: Unpacking the Apache Web Server Software

Use

You can only use the *Apache Web Server* with the SAP DB Web Tools.

Prerequisites

[Installing the SAP DB Web Tools Software \[Page 15\]](#)
you are logged on with the `root` user.

Conventions

[Variables \[Page 7\]](#), [Operating System Architecture \[Page 7\]](#)

Procedure

1. In the Web browser, select the software package you require for the *Apache Web Server*:
`http://httpd.apache.org/dist/apache_<version>.tar.gz`
2. Copy the software package to a directory on your computer.
3. Decompress the file `apache_<version>.tar.gz`. Enter the following command:
`gzip -d apache_<version>.tar.gz`
The file `apache_<version>.tar` is then created.
4. Unpack the software with `tar`. Enter the following command:
`tar xf apache_<version>.tar`

Result

The files required for installation are unpacked to the directory `apache_<version>`.

Next Installation Step

[Installing the Apache Web Server \[Page 26\]](#)

Integration

[Installing, Configuring, and Starting the Apache Web Server \[Page 23\]](#)



Linux: Installing the Apache Web Server

Prerequisites

[Unpacking the Apache Web Server Software \[Page 24\]](#)

you are logged on with the `root` user.

Conventions

[Variables \[Page 7\]](#), [Operating System Architecture \[Page 7\]](#)

Procedure

1. Go to the directory `apache_<version>`.
2. Prepare to translate the *Apache Web Server* software. Enter the following command:
`./configure --prefix=<installation_path_apache> --enable-rule=SHARED_CORE --enable-shared=cgi`
You require the option `--enable-rule=SHARED_CORE --enable-shared=cgi` here, since the Apache Web Server must be capable of subsequently loading Dynamic Shared Objects (DSO).
3. Start the make run. Enter the following command:
`make`
4. Install the Apache Web Server. Enter the following command:
`make install`

Result

The *Apache Web Server* is now available and can be started using the command `apachectl`. Test start the Apache Web Server by entering the following command:

```
<installation_path_apache>/bin/apachectl start
```

If the *Apache Web Server* was started successfully, the following message is displayed:

```
<installation_path_apache>/bin/apachectl start: httpd started
```

You can now call up the Apache home page via the Web browser.

Next Installation Step

[Configuring the Apache Web Server \[Page 27\]](#)

Integration

[Installing, Configuring, and Starting the Apache Web Server \[Page 23\]](#)



UNIX: Installing the Apache Web Server

Prerequisites

[Unpacking the Apache Web Server Software \[Page 24\]](#)

you are logged on with the `root` user.

Conventions

[Variables \[Page 7\]](#), [Operating System Architecture \[Page 7\]](#)

Procedure

1. Go to the directory `apache_<version>`.
2. Prepare to translate the *Apache Web Server* software. Enter the following command:

```
./configure --prefix=<installation_path_apache> --enable-rule=SHARED_CORE --enable-shared=cgi
```

You require the option `--enable-rule=SHARED_CORE --enable-shared=cgi` here, since the Apache Web Server must be capable of subsequently loading Dynamic Shared Objects (DSO).
3. Start the make run. Enter the following command:

```
make
```
4. Install the Apache Web Server. Enter the following command:

```
make install
```

Result

The *Apache Web Server* is now available and can be started via the command `apachectl`. Test start the Apache Web Server by entering the following command:

```
<installation_path_apache>/bin/apachectl start
```

If the Apache Web Server was started successfully, the following message is displayed:

```
<installation_path_apache>/bin/apachectl start: httpd started
```

You can now call up the Apache home page via the Web browser.

Next Installation Step

[Configuring the Apache Web Server \[Page 31\]](#)

Integration

[Installing, Configuring, and Starting the Apache Web Server \[Page 23\]](#)



Windows NT/Windows 2000: Installing the Apache Web Server

Use

You can use either the *SAP DB Web Server*, the *Apache Web Server* or the *Internet Information Server (IIS)*. If you decide to use the *SAP DB Web Server* or the *IIS*, you can ignore the description of how to install, configure and start the *Apache Web Server*. In this case, see [Configuring the SAP DB Web Server \[Page 19\]](#) or [Configuring and Starting the IIS \[Page 39\]](#) for more information.

Prerequisites

[Installing the SAP DB Web Tools Software \[Page 15\]](#)

You are logged on with the *Administrator* user.

Conventions

[Variables \[Page 7\]](#), [Operating System Architecture \[Page 7\]](#)

Procedure

1. In the Web browser, select the software package for the *Apache Web Server*:
`http://httpd.apache.org/dist/binaries/win32/apache_1_3_14_win32_r2.exe`
2. Copy the software package to a directory on your computer.
3. Execute the file `apache_1_3_14_win32_r2.exe`.

Result

The *Apache Web Server* is installed. The *Apache Web Server* program group is created.

Next Installation Step

[Configuring the Apache Web Server \[Page 35\]](#)

Integration

[Installing, Configuring, and Starting the Apache Web Server \[Page 23\]](#)



Linux: Configuring the Apache Web Server

Use

In the Apache configuration file `<installation_path_apache>/conf/httpd.conf`, you must modify the Apache module list, and extend the alias entries.

Prerequisites

[Installing the Apache Web Server \[Page 25\]](#) (The *Apache Web Server* is, therefore, capable of subsequently loading Dynamic Shared Objects (DSO) with the command `LoadModule`.)

You are logged on as user `root`.

Procedure

1. [Modifying the Apache Module List \[Page 28\]](#)
2. [Extending the Alias Entries \[Page 30\]](#)

Next Installation Step

[Starting the Apache Web Server \[Page 37\]](#)

Integration

[Installing, Configuring, and Starting the Apache Web Server \[Page 23\]](#)



Linux: Modifying the Apache Module List

Use

You must modify the Apache module list in the Apache configuration file `<installation_path_apache>/conf/httpd.conf`.

You must enter a new module (the FastCGI(SAP DB) module) in the list of Apache modules. The FastCGI(SAP DB) module is a FastCGI modified specially for the *SAP DB Web Tools* with a special session affinity patch. The FastCGI(SAP DB) module was developed on the basis of FastCGI Version 2.2.2. You must not replace the FastCGI(SAP DB) module with a more recent version of FastCGI.

Prerequisites

[Installing the Apache Web Server \[Page 25\]](#) (The Apache Web Server is, therefore, capable of subsequently loading Dynamic Shared Objects (DSO) with the command `LoadModule`.)

You are logged on as user `root`.

Procedure

1. [Extending the List of LoadModule Entries \[Page 28\]](#)
2. [Entering the FastCGI\(SAP DB\) Module in the List of Apache Modules to be Loaded \[Page 29\]](#)
3. [Creating a Link to the FastCGI\(SAP DB\) Executable \[Page 30\]](#)

Next Installation Step

[Extending the Alias Entries \[Page 30\]](#)

Integration

[Configuring the Apache Web Server \[Page 27\]](#)



Linux: Extending the List of LoadModule Entries

Use

You must enter a new module (the FastCGI(SAP DB) module) in the list of Apache modules.

Prerequisites

[Modifying the Apache Module List \[Page 28\]](#)

Conventions

[Variables \[Page 7\]](#), [Operating System Architecture \[Page 7\]](#)

Procedure

Open the Apache configuration file `<installation_path_apache>/conf/httpd.conf`. Insert the required lines in the configuration file.



A green backslash (\) in a line means: continuation. Do not begin a new line. You do not need to add this green backslash.

```
# Example:
# LoadModule foo_module libexec/mod_foo.so
LoadModule cgi_module          libexec/mod_cgi.so
.
.
.
LoadModule fastcgi_module <installation_path_web_tools>/lib/mod_fastcgi.so
AddHandler fastcgi-script fcgi
FastCgiServer htdocs/wafcgi.fcgi -initial\
-env LD_LIBRARY_PATH= <installation_path_web_tools>/lib\
-num_sessions 1 -session_tracking cookies
.
.
.
```

Next Installation Step

[Entering the FastCGI\(SAP DB\) Module in the List of Apache Modules to be Loaded \[Page 29\]](#)

Integration

[Modifying the Apache Module List \[Page 28\]](#)



Linux: Entering the FastCGI(SAP DB) Module in the List of Apache Modules to be Loaded

Use

You must enter a new module (the FastCGI(SAP DB) module) in the list of Apache modules.

Prerequisites

[Extending the List of LoadModule Entries \[Page 28\]](#)

Conventions

[Variables \[Page 7\]](#), [Operating System Architecture \[Page 7\]](#)

Procedure

In the Apache configuration file `<installation_path_apache>/conf/httpd.conf` insert the required line.

```
# Reconstruction of the complete module list from all available modules
# (static and shared ones) to achieve correct module execution order.
# [WHENEVER YOU CHANGE THE LOADMODULE SECTION ABOVE UPDATE THIS, TOO]
ClearModuleList
AddModule mod_fastcgi.c
```

```
AddModule mod_env.c
```

```
.  
. .  
.
```

Next Installation Step

[Creating a Link to the FastCGI\(SAP DB\) Executable \[Page 30\]](#)

Integration

[Modifying the Apache Module List \[Page 28\]](#)



Linux: Creating a Link to the FastCGI(SAP DB) Executable

Use

You must enter a new module (the FastCGI(SAP DB) module) in the list of Apache modules.

Prerequisites

[Entering the FastCGI\(SAP DB\) Module in the List of Apache Modules to be Loaded \[Page 29\]](#)

Conventions

[Variables \[Page 7\]](#), [Operating System Architecture \[Page 7\]](#)

Procedure

Since the FastCGI(SAP DB) call refers to the directory `DocumentRoot` of the Apache Web Server, you have to create the corresponding call to the executable program (Executable) in the form of a link. The link must be created in the directory `<installation_path_apache>`.

1. Go to the Apache installation directory `<installation_path_apache>`.

2. Enter the following command:

```
ln -s -f <installation_path_web_tools>/pgm/wafcgi htdocs/wafcgi.fcgi
```

Next Installation Step

[Extending the Alias Entries \[Page 30\]](#)

Integration

[Modifying the Apache Module List \[Page 28\]](#)



Linux: Extending the Alias Entries

You must modify the alias entries in the Apache configuration file `<installation_path_apache>/conf/httpd.conf`.

Prerequisites

[Modifying the Apache Module List \[Page 28\]](#)

Conventions

[Variables \[Page 7\]](#), [Operating System Architecture \[Page 7\]](#)

Procedure

Insert the following alias entries in the Apache configuration file

`<installation_path_apache>/conf/httpd.conf`:

```
.
.
.
<IfModule mod_alias.c>
#
# Note that if you include a trailing / on fakename then the server
# will require it to be present in the URL.  So "/icons" isn't aliased
# in this example, only "/icons/"..
#
Alias /icons/ "../apache/icons/"
Alias /websql "<installation_path_apache>/htdocs/wafcgi.fcgi/websql"
Alias /webdbm "<installation_path_apache>/htdocs/wafcgi.fcgi/webdbm"
Alias /WARoot "<installation_path_web_tools>/WebAgent/Documents/WARoot"
.
.
.
```

If HTTP Port 80, which is entered as standard in the Apache configuration file, has already been assigned by another Web server, you must enter a different port as the HTTP port (for example, 8080).

Next Installation Step

[Starting the Apache Web Server \[Page 37\]](#)

Integration

[Configuring the Apache Web Server \[Page 27\]](#)



UNIX: Configuring the Apache Web Server

Use

In the Apache configuration file `<installation_path_apache>/conf/httpd.conf`, you must modify the Apache module list, and extend the alias entries.

Prerequisites

[Installing the Apache Web Server \[Page 26\]](#) (The Apache Web Server is, therefore, capable of subsequently loading Dynamic Shared Objects (DSO) with the command `LoadModule`.)

You are logged on as user `root`.

Procedure

3. [Modifying the Apache Module List \[Page 32\]](#)
4. [Extending the Alias Entries \[Page 34\]](#)

Next Installation Step

[Starting the Apache Web Server \[Page 38\]](#)

Integration

[Installing, Configuring, and Starting the Apache Web Server \[Page 23\]](#)



UNIX: Modifying the Apache Module List

Use

You must modify the Apache module list in the Apache configuration file `<installation_path_apache>/conf/httpd.conf`.

You must enter a new module (the FastCGI(SAP DB) module) in the list of Apache modules. The FastCGI(SAP DB) module is a FastCGI modified specially for the SAP DB Web Tools with a special session affinity patch. The FastCGI(SAP DB) module was developed on the basis of FastCGI Version 2.2.2. You must not replace the FastCGI(SAP DB) module with a more recent version of FastCGI.

Prerequisites

[Installing the Apache Web Server \[Page 26\]](#) (The Apache Web Server is, therefore, capable of subsequently loading Dynamic Shared Objects (DSO) with the command `LoadModule`.)

You are logged on as user `root`.

Procedure

4. [Extending the List of LoadModule Entries \[Page 32\]](#)
5. [Entering the FastCGI\(SAP DB\) Module in the List of Apache Modules to be Loaded \[Page 33\]](#)
6. [Creating a Link to the FastCGI\(SAP DB\) Executable \[Page 34\]](#)

Next Installation Step

[Extending the Alias Entries \[Page 34\]](#)

Integration

[Configuring the Apache Web Server \[Page 31\]](#)



UNIX: Extending the List of LoadModule Entries

Use

You must enter a new module (the FastCGI(SAP DB) module) in the list of Apache modules.

Prerequisites

[Modifying the Apache Module List \[Page 32\]](#)

Conventions

[Variables \[Page 7\]](#), [Operating System Architecture \[Page 7\]](#)

Procedure

Open the Apache configuration file `<installation_path_apache>/conf/httpd.conf`. Insert the required lines in the configuration file.



A green backslash (\) in a line means: continuation. Do not begin a new line. You do not need to add this green backslash.

```
# Example:
# LoadModule foo_module libexec/mod_foo.so
LoadModule cgi_module      libexec/mod_cgi.so
.
.
.
LoadModule fastcgi_module <installation_path_web_tools>/lib/mod_fastcgi.so
AddHandler fastcgi-script fcgi
FastCgiServer htdocs/wafcgi.fcgi -initial\
-env LD_LIBRARY_PATH= <installation_path_web_tools>/lib\
-num_sessions 1 -session_tracking cookies
.
.
.
```



For the HP-UX operating system, the first of these three lines must be:

```
LoadModule fastcgi_module <installation_path_web_tools>/lib\
/mod_fastcgi.sl
```

Next Installation Step

[Entering the FastCGI\(SAP DB\) Module in the List of Apache Modules to be Loaded \[Page 33\]](#)

Integration

[Modifying the Apache Module List \[Page 32\]](#)



UNIX: Entering the FastCGI(SAP DB) Module in the List of Apache Modules to be Loaded

Use

You must enter a new module (the FastCGI(SAP DB) module) in the list of Apache modules.

Prerequisites

[Extending the List of LoadModule Entries \[Page 32\]](#)

Conventions

[Variables \[Page 7\]](#), [Operating System Architecture \[Page 7\]](#)

Procedure

In the Apache configuration file <installation_path_apache>/conf/httpd.conf insert the required line.

```
# Reconstruction of the complete module list from all available modules
# (static and shared ones) to achieve correct module execution order.
# [WHENEVER YOU CHANGE THE LOADMODULE SECTION ABOVE UPDATE THIS, TOO]
ClearModuleList
AddModule mod_fastcgi.c
AddModule mod_env.c
.
.
.
```

Next Installation Step

[Creating a Link to the FastCGI\(SAP DB\) Executable \[Page 34\]](#)

Integration

[Configuring the Apache Web Server \[Page 31\]](#)



UNIX: Creating a Link to the FastCGI(SAP DB) Executable

Use

You must enter a new module (the FastCGI(SAP DB) module) in the list of Apache modules.

Prerequisites

[Entering the FastCGI\(SAP DB\) Module in the List of Apache Modules to be Loaded \[Page 33\]](#)

Conventions

[Variables \[Page 7\]](#), [Operating System Architecture \[Page 7\]](#)

Procedure

Since the FastCGI(SAP DB) call refers to the directory `DocumentRoot` of the Apache Web Server, you have to create the corresponding call to the executable program (Executable) in the form of a link. The link must be created in the directory `<installation_path_apache>`.

1. Go to the Apache installation directory `<installation_path_apache>`.
2. Enter the following command:

```
ln -s -f <installation_path_web_tools>/pgm/wafcgi htdocs/wafcgi.fcgi
```

Next Installation Step

[Extending the Alias Entries \[Page 34\]](#)

Integration

[Modifying the Apache Module List \[Page 32\]](#)



UNIX: Extending the Alias Entries

Use

You must modify the alias entries in the Apache configuration file `<installation_path_apache>/conf/httpd.conf`.

Prerequisites

[Modifying the Apache Module List \[Page 32\]](#)

Conventions

[Variables \[Page 7\]](#), [Operating System Architecture \[Page 7\]](#)

Procedure

Insert the following alias entries in the Apache configuration file

<installation_path_apache>/conf/httpd.conf:

```

.
.
.
<IfModule mod_alias.c>
#
# Note that if you include a trailing / on fakename then the server
# will require it to be present in the URL.  So "/icons" isn't aliased
# in this example, only "/icons/"..
#

Alias /icons/ "../apache/icons/"
Alias /websql "<installation_path_apache>/htdocs/wafcgi.fcgi/websql"
Alias /webdbm "<installation_path_apache>/htdocs/wafcgi.fcgi/webdbm"
Alias /WARoot "<installation_path_web_tools>/WebAgent/Documents/WARoot"

.
.
.

```

If HTTP Port 80, which is entered as standard in the Apache configuration file, has already been assigned by another Web server, you must enter a different port as the HTTP port (for example, 8080).

Next Installation Step

[Starting the Apache Web Server \[Page 38\]](#)

Integration

[Configuring the Apache Web Server \[Page 31\]](#)



Windows NT/Windows 2000: Configuring the Apache Web Server

Use

In the Apache configuration file <installation_path_apache>/conf/httpd.conf, you must modify the Apache module list, and extend the alias entries.

Prerequisites

[Installing the Apache Web Server \[Page 27\]](#) (The Apache Web Server is, therefore, capable of subsequently loading Dynamic Shared Objects (DSO) with the command `LoadModule`.)

You are logged on as user *Administrator*.

Procedure

5. [Modifying the Apache Module List \[Page 36\]](#)
6. [Installing the Apache Web Server Service \[Page 37\]](#)

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[Starting the Apache Web Server \[Page 38\]](#)

Integration

[Installing, Configuring, and Starting the Apache Web Server \[Page 23\]](#)



Windows NT/Windows 2000: Modifying the Apache Module List

Use

In the Apache configuration file `<installation_path_apache>/conf/httpd.conf`, you must modify the Apache module list, and extend the alias entries.

Prerequisites

[Installing the Apache Web Server \[Page 27\]](#) (The Apache Web Server is, therefore, capable of subsequently loading Dynamic Shared Objects (DSO) with the command `LoadModule`.)

You are logged on as user *Administrator*.

Conventions

[Variables \[Page 7\]](#), [Operating System Architecture \[Page 7\]](#)

Procedure

Open the Apache configuration file `<installation_path_apache>/conf/httpd.conf`. In the Start menu, choose: *Start->Programs->Apache Web Server-> Management->Edit Configuration*.

Add the following lines:

```
#####
###
### SAP DB Web Tools
###
#####
LoadModule WebAgentModule "<installation_path_web_tools>/pgm/wapiap.dll"
<Location />
    SetHandler webagent
</Location>
<IfModule mod_alias.c>
    Alias /WARoot <installation_path_web_tools>/Documents/WARoot"
</IfModule>
```

Please note that Apache 1.3.14 uses the special character `"/'` and Apache 1.3.12 the special character `"\"` in path names.

If HTTP Port 80, which is entered as standard in the Apache configuration file, has already been assigned by another Web server, you must enter a different port as the HTTP port (for example, 8080).

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Integration

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Windows NT/Windows 2000: Installing the Apache Web Server Service

Prerequisites

[Modifying the Apache Module List \[Page 36\]](#)

Procedure

Install the Apache Web Server as a service. In the Start menu, choose *Start->Programs->Apache Web Server->Apache as a service->Install service* .

Next Installation Step

[Starting the Apache Web Server \[Page 38\]](#)

Integration

[Configuring the Apache Web Server \[Page 35\]](#)



Linux: Starting the Apache Web Server

Use

You must restart the Apache Web Server.

Prerequisites

[Extending the Alias Entries \[Page 30\]](#)

You are logged on as user `root`.

Procedure

1. Stop the Apache Web Server. To do this, enter the following command:
`<installation_path_apache>/bin/apachectl stop`
2. Start the Apache Web Server. To do this, enter the following command:
`<installation_path_apache>/bin/apachectl start`

If the FastCGI service cannot process the path or files in the path `/tmp/fcgi` when the Apache Web Server is started, you must add a write authorization to the rights for *other*.

Next Installation Step

[Configuring the Web Browser \[Page 39\]](#)

Integration

[Installing, Configuring, and Starting the Apache Web Server \[Page 23\]](#)



UNIX: Starting the Apache Web Server

Use

You must restart the Apache Web Server.

Prerequisites

[Extending the Alias Entries \[Page 34\]](#)

You are logged on as user `root`.

Procedure

3. Stop the Apache Web Server. To do this, enter the following command:
`<installation_path_apache>/bin/apachectl stop`
4. Start the Apache Web Server. To do this, enter the following command:
`<installation_path_apache>/bin/apachectl start`

If the FastCGI service cannot process the path or files in the path `/tmp/fcgi` when the Apache Web Server is started, you must add a write authorization to the rights for *other*.

Next Installation Step

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Integration

[Installing, Configuring, and Starting the Apache Web Server \[Page 23\]](#)



Windows NT/Windows 2000: Starting the Apache Web Server

Use

You must start the Apache Web Server.

Prerequisites

[Installing the Apache Web Server Service \[Page 37\]](#)

You are logged on with the *Administrator* user.

Procedure

Start the Apache Web Server. In the Start menu, choose *Start->Programs->Apache Web Server->Apache as a service->Start service*.

Next Installation Step

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Integration

[Installing, Configuring, and Starting the Apache Web Server \[Page 23\]](#)



Configuring and Starting the IIS

Features

For the **Windows NT/Windows 2000** operating systems, you can use either the *Internet Information Server (IIS)*, the *SAP DB Web Server* or the *Apache Web Server* with the SAP DB Web Tools. If you decide to use the SAP DB Web Server or the Apache Web server, you can ignore the description of how to configure and start the IIS. In this case, see [Configuring and Starting the SAP DB Web Server \[Page 16\]](#) or [Installing, Configuring and Starting the Apache Web Server \[Page 23\]](#) for more information.

Prerequisites

[Installing the SAP DB Web Tools Software \[Page 15\]](#)
you are logged on with the *Administrator* user.

Conventions

[Variables \[Page 7\]](#), [Operating System Architecture \[Page 7\]](#)

Procedure

1. Start the *Internet Service Manager*.
2. Edit the *Master Properties* in the IIS.
3. Choose the *ISAPI Filters* tab page.
4. Use **Add...** to add the SAP DB Web Tools filter. Enter a name of your choice (for example, SAPDBWebTools) as the Filter Name. As the Executable, enter the program name `<installation_path_web_tools>/pgm/wapims.dll`.
5. In the desired Web site (for example, Default Web Site), use the right mouse button to choose *New->Virtual Directory*. Enter a virtual directory with the alias **WARoot**. Enter the physical path `<installation_path_web_tools>/Documents/WARoot`. Use the defaulted permissions.
6. Stop and restart the IIS.

Next Installation Step

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Integration

[Web Tools Installation Guide: SAP DB 7.3 \[Page Error! Bookmark not defined.\]](#)



Configuring the Web Browser

Features

The browser must support *JavaScript*, *style sheets*, and *cookies*.

Procedure (Netscape Browser)

1. Open the Netscape Browser.
2. Choose *Edit->Preferences...->Advanced*.
3. Choose *Enable JavaScript*, *Enable Style Sheets* and *Accept all cookies*.

Additional Information

[Using the SAP DB Web Tools \[Page 40\]](#)

Integration

[Web Tools Installation Guide: SAP DB 7.3 \[Page Error! Bookmark not defined.\]](#)



Using the SAP DB Web Tools

Procedure

- [Linux: Using the SAP DB Web Tools \[Page 40\]](#)
- [UNIX: Using the SAP DB Web Tools \[Page 40\]](#)
- [Windows NT/Windows 2000: Using the SAP DB Web Tools \[Page 41\]](#)

[Notes on Using Web SQL \[Page 41\]](#)

[Linux: Deinstalling the SAP DB Web Tools \[Page 42\]](#)

Integration

[Web Tools Installation Guide: SAP DB 7.3 \[Page Error! Bookmark not defined.\]](#)



Linux: Using the SAP DB Web Tools

Starting Web DBM

Open the Web browser and enter the following URL:

```
http://<web_server>:<port>/webdbm
```

Starting Web SQL

Open the Web browser and enter the following URL:

```
http://<web_server>:<port>/websql
```

Administering the SAP DB Web Tools

You can use this administration tool, for example, to load and start the Web DBM and Web SQL services.

- If you are using the SAP DB Web Server ([Configuring the SAP DB Web Server \[Page 17\]](#)):
Open the Web browser and enter the following URL:

```
http://<web_server>:<port>/waadmin.wa
```
- If you are using the Apache Web Server ([Unpacking the Apache Web Server Software \[Page 24\]](#)):
Open the Web browser and enter the following URL:

```
http://<web_server>:<port>/wafcgi.fcgi/waadmin.wa
```

Integration

[Using the SAP DB Web Tools \[Page 40\]](#)



UNIX: Using the SAP DB Web Tools

Starting Web DBM

Open the Web browser and enter the following URL:

```
http://<web_server>:<port>/webdbm
```


Starting Web SQL

Open the Web browser and enter the following URL:

```
http://<web_server>:<port>/websql
```

Administering the SAP DB Web Tools

You can use this administration tool, for example, to load and start the Web DBM and Web SQL services.

Open the Web browser and enter the following URL:

```
http://<web_server>:<port>/wafcgi.fcgi/waadmin.wa
```

Integration

[Using the SAP DB Web Tools \[Page 40\]](#)



Windows NT/Windows 2000: Using the SAP DB Web Tools

Starting Web DBM

Open the Web browser and enter the following URL:

```
http://<web_server>:<port>/webdbm
```

Starting Web SQL

Open the Web browser and enter the following URL:

```
http://<web_server>:<port>/websql
```

Administering the SAP DB Web Tools

You can use this administration tool, for example, to load and start the Web DBM and Web SQL services.

Open the Web browser and enter the following URL:

```
http://<web_server>:<port>/waadmin.wa
```

Integration

[Using the SAP DB Web Tools \[Page 40\]](#)



Notes on Using Web SQL (SAP DB Version prior to 7.2.5)

If you are using a database server that has a release lower than Version 7.2.5, please read the section below carefully.

Changes to the Database Server for Using Web SQL

To enable the entire functional scope of SAP DB Web Tool *Web SQL* to be used, you must carry out the following actions on the database server that is to be accessed using Web SQL:

1. Copy the file <installation_path_web_tools>/env/QP.ins to the directory <installation_dependent_path>/env of the desired database server.

2. On the database server, load the system tables of the database system. Enter the following command:

```
dbmcli -u <DBM_userid>,<DBM_password> -d <database_instance> load_systab
```

You only have to carry out these steps once on the database server.

Access to Stored Statements with Changed User Name

If a user name is changed on the database server accessed with *Web SQL*, the user in question can no longer access his *Stored Statements* in the same way as before.

To enable the user to continue accessing his *Stored Statements*, you must carry out the following steps:

1. Start Web SQL as a DBA user.
2. Enter the following SQL statements:

```
UPDATE sysdba.wa_inode SET "VIEWOWNER" = '<new_user_name>' WHERE "VIEWOWNER" = '<old_user_name>'
UPDATE sysdba.wa_container SET "VIEWOWNER" = '<new_user_name>'
WHERE "VIEWOWNER" = '<old_user_name>'
```

Deleting Stored Statements of a Deleted User Name

If a user name is deleted on the database server accessed with *Web SQL*, the *Stored Statements* of this user are not deleted automatically.

To delete the *Stored Statements*, you have to carry out the following steps:

1. Start Web SQL as a DBA user.
2. Enter the following SQL statements:

```
DELETE sysdba.wa_inode WHERE "VIEWOWNER" = '<deleted_user>'
DELETE sysdba.wa_container WHERE "VIEWOWNER" = '<deleted_user>'
```

Integration

[Using the SAP DB Web Tools \[Page 40\]](#)



Linux: Deinstalling the SAP DB Web Tools

Prerequisites

You are logged on as user `root`.

Procedure

1. Go to the directory `/usr/sapdb-web`.
2. Enter the following command: `rpm -e sapdb-web`

Integration

[Using the SAP DB Web Tools \[Page 40\]](#)