

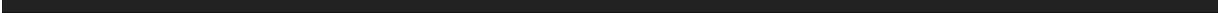
Software Provisioning Manager 1.0
Document Version: 2.3 – 2017-02-08

Installation of a Standalone SAP Gateway Instance for SAP Systems Based on SAP NetWeaver 7.0 to 7.03 on IBM i



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Document History

Note

Before you start the implementation, make sure you have the latest version of this document that is available at <http://service.sap.com/instguides>.

The following table provides an overview on the most important document changes:

Table 1:

Version	Date	Description
2.3	2017-02-06	Updated version for software provisioning manager 1.0 SP19 (SL Toolset 1.0 SP19)
2.2	2016-10-07	Updated version for software provisioning manager 1.0 SP18 (SL Toolset 1.0 SP18)
2.1	2016-06-06	Updated version for software provisioning manager 1.0 SP17 (SL Toolset 1.0 SP17)
2.0	2016-02-15	Updated version for software provisioning manager 1.0 SP10 (SL Toolset 1.0 SP16)
1.9	2015-10-12	Updated version for software provisioning manager 1.0 SP09 (SL Toolset 1.0 SP15)
1.8	2015-09-14	Updated version for software provisioning manager 1.0 SP09 (SL Toolset 1.0 SP14)
1.7	2015-04-27	Updated version for software provisioning manager 1.0 SP08 (SL Toolset 1.0 SP13)
1.6	2014-11-24	Updated version for software provisioning manager 1.0 SP07 (SL Toolset 1.0 SP12)
1.5	2014-07-07	Updated version for software provisioning manager 1.0 SP06 (SL Toolset 1.0 SP11)

Version	Date	Description
1.4	2014-03-17	Updated version for software provisioning manager 1.0 SP09 (SL Toolset 1.0 SP10)
1.3	2013-10-28	Updated version
1.2	2013-07-15	Updated version
1.1	2013-04-12	Updated version
1.0	2012-12-17	Initial version

1 Introduction

1.1 About this Document

This installation guide describes how to install a **standalone** Gateway for SAP systems based on SAP NetWeaver using the installation tool software provisioning manager 1.0 SP19 (“installer” for short), which is part of SL Toolset 1.0 SP19.

You can find a complete list of supported SAP system products in SAP Note [1680045](#).

Each instance of an SAP system with AS ABAP has a Gateway. The Gateway enables communication between work processes and external programs, as well as communication between work processes from different instances of SAP systems.

With a **standalone** Gateway, you can install the Gateway service separately from the SAP system. In this case, the SAP system can access each external Gateway under a different Remote Function Call (RFC) connection.

i Note

There is no difference between a standalone Gateway instance for a Unicode system and a standalone Gateway for a non-Unicode system.

1.2 About Software Provisioning Manager

Software Provisioning Manager 1.0 is the successor of the product- and release-specific delivery of provisioning tools, such as SAPinst. Before you run it, we recommend that you always download the latest version of Software Provisioning Manager 1.0. Software Provisioning Manager 1.0 is part of the Software Logistics Toolset 1.0 (“SL Toolset” for short). This way, you automatically get the latest fixes and supported processes. For more information about Software Provisioning Manager as well as products and releases supported by it, see SAP Note [1680045](#) and <http://scn.sap.com/docs/DOC-30236>. “SAPinst” has therefore been renamed to “Software Provisioning Manager 1.0” in this documentation. However, the term “SAPinst” is still used in:

- Texts and screen elements in the Software Provisioning Manager GUI
- Naming of executables, for example `sapinst.exe`

In the following, we generally refer to Software Provisioning Manager 1.0 as the “installer”. We only use the term “Software Provisioning Manager 1.0” if this is required for technical reasons.

- **⚠ Caution**

SAP is going to restrict maintenance for operating system versions that have been initially released with SAP kernel 7.2<x> but are no longer supported for SAP kernel 7.40 and higher. The following Software Provisioning Manager operating system versions are affected:

- IBM i: < 7.1

With the release of Software Provisioning Manager 1.0 SPS 18, the 70SWPM* .SAR archive will stop working on the above listed outdated operating system versions.

Instead of using the 70SWPM* .SAR archive, you must use the RMOS70SWPM* .SAR archive for these outdated operating system versions.

Keep in mind that the RMOS70SWPM* .SAR archive will not receive improvements in the future. SAP maintenance for RMOS70SWPM* .SAR will be finally stopped by the end of 2017.

SAP recommends upgrading the operating system to a more recent version and using RMOS70SWPM* .SAR to export from existing SAP systems.

Related Information

[Preparing the Installation Media \[page 20\]](#)

1.3 SAP Notes for the Installation

You **must** read the following SAP Notes **before** you start the installation. These SAP Notes contain the most recent information on the installation, as well as corrections to the installation documentation.

Make sure that you have the up-to-date version of each SAP Note which you can find in the SAP Service Marketplace at <http://service.sap.com/notes>.

Table 2: SAP Notes for the Installation

SAP Note Number	Title	Description
1680045	Release Note for Software Provisioning Manager 1.0	Software provisioning manager 1.0 with installation and system copy for SAP NetWeaver-based systems
1760513	Inst. Standalone Gateway for SAP Systems Based on SAP NetWeaver 7.0 incl. EHPs	Additional Information about standalone Gateway installation.
893876	IBM i: Creating a Gateway Instance	Additional Information about standalone Gateway installation on IBM i.

1.4 Accessing the SAP Library

The references to **SAP NetWeaver Library** documentation in this installation guide always refer to the following on SAP Help Portal:

Table 3:

Product and Release	SAP Library Path
SAP systems based on SAP NetWeaver 7.3	http://help.sap.com/nw73 ▶ <i>Application Help</i> ▶ <i>Function-Oriented View: English</i> ▶
SAP systems based on SAP NetWeaver 7.3 including Enhancement Package 1	http://help.sap.com/nw731 ▶ <i>Application Help</i> ▶ <i>Function-Oriented View: English</i> ▶
SAP systems based on SAP NetWeaver 7.4	http://help.sap.com/nw74 ▶ <i>Application Help</i> ▶ <i>Function-Oriented View: English</i> ▶
SAP systems based on SAP NetWeaver 7.5	http://help.sap.com/nw75 ▶ <i>Application Help</i> ▶ <i>Function-Oriented View: English</i> ▶

1.5 Naming Conventions

In this documentation, the following naming conventions apply:

i Note

From a technical point of view, the standalone Gateway is set up like an SAP system with its own SAP system ID (SAPSID), its own operating system users, and its own directory structure.

- *installer* refers to *software provisioning manager 1.0*.
- *SAP system* refers to *standalone gateway*.
- *instance* refers to *astandalone gateway instance*.

2 Planning

2.1 Hardware and Software Requirements

You check that your hosts meet the hardware and software requirements for your operating system and the Gateway instance.

Caution

If your hosts do not fully meet the requirements, you might experience problems when working with the SAP system.

Process Flow

1. Check the *Product Availability Matrix* at <http://service.sap.com/pam> for supported operating system releases.
2. Check the hardware and software requirements table for the [Gateway Instance \[page 9\]](#).
3. If you want to use the standalone Gateway for a **production** system, the values provided by the Prerequisite Checker and the hardware and software requirements checklists are not sufficient. In addition, do the following:
 - You use the hardware sizing information available at <http://service.sap.com/sizing>.
 - You contact your hardware vendor, who can analyze the load and calculate suitable hardware sizing depending on:
 - The set of applications to be deployed
 - How intensively the applications are to be used
 - The number of users

2.1.1 Hardware and Software Requirements Tables

Use

The Gateway host must meet at least the following requirements for the Gateway instance:

Table 5: Hardware Requirements

Requirement	Values and Activities
Processing units	<p>For application server instances and database instances: The number of physical or virtual processing units usable by the operating system image must be equal to or greater than 2.</p> <p>Examples of processing units are processor cores or hardware threads (multithreading).</p> <p>In a virtualized environment, ensure that adequate processor resources are available to support the workloads of the running SAP systems.</p>
Hard disk space	<ul style="list-style-type: none"> • General requirements: <ul style="list-style-type: none"> ○ 4.3 GB of temporary disk space for every required installation medium that you have to copy to a local hard disk. For more information, see Preparing the Installation Media [page 20]. ○ 1.2 GB of temporary disk space for the installation. ○ If an advanced disk array is available (for example, RAID), contact your hardware vendor to make sure that the data security requirements are covered by this technology. • Instance-specific requirements: <ul style="list-style-type: none"> ○ 1 GB of hard disk space.
RAM	1 GB RAM
RAM	1 GB RAM

Table 6: Software Requirements

Requirement	Values and Activities
Operating System Requirements	<p>The SAP products based on SAP NetWeaver 7.0 SR3, SAP NetWeaver 7.0 EHP1 and SAP NetWeaver 7.0 EHP2 are released for V6R1,V7R1 and V7R2, and V7R3.</p> <p>The SAP products based on SAP NetWeaver 7.0 EHP3 are released for V7R1,V7R2, and V7R3.</p> <p>For information about which operating system versions have been released for SAP on IBM i, see the Product Availability Matrix (PAM) at http://support.sap.com/pam and search for <product> then choose <product>. On the <i>Database Platforms</i> tab, you see the supported releases under DB2/400 ... ▶ OS/400 ... ▶.</p> <p>For information about which operating system versions have been released for SAP on IBM i, see the following:</p> <ul style="list-style-type: none"> • For more information about V6R1, see SAP Note 1148480. • For more information about V7R1, see SAP Note 1432783. • For more information about V7R2, see SAP Note 2011710. • For more information about V7R3, see SAP Note 2299407. <p>PTF and Information APAR</p> <p>For the latest information on cumulative PTF package (CUM package) release levels and operating system corrections related to SAP products on IBM DB2 for i, see the following IBM information APARs:</p> <ul style="list-style-type: none"> • APAR II14362 (V6R1M0) • APAR II14535 (V6R1M1) • APAR II14536 (V7R1M0) • APAR II14741 (V7R2M0) • APAR II14816 (V7R3M0) <p>To load an information APAR onto your IBM i using the IBM Electronic Customer Support (ECS) link, enter:</p> <p>SNDPTFORD PTFID((<Info_APAR_ID>))</p> <div style="background-color: #fff9c4; padding: 10px;"> <p> Example</p> <p>To load the information APAR for V7R2M0, enter:</p> <p>SNDPTFORD PTFID(II14741)</p> </div> <p>For more information about releases and PTFs for SAP on IBM i and the address where you can find the information APARs, see SAP Note 83292.</p> <div style="background-color: #fff9c4; padding: 10px;"> <p> Caution</p> <p>Make sure that English is installed as the primary or secondary language. For more information, see Installing English as a Secondary Language [page 13].</p> </div>

Requirement	Values and Activities
	<p>To run an SAP system on IBM i with ASCII code pages, make sure that you have installed 57nnSS1 option 21 – Extended NLS Support. This option is delivered to you by IBM with the installation media of the operating system.</p> <p>For more information about how to install the secondary language, see the IBM documentation AS/400 National Language Support (SC41-5101-01)</p> <p>Other Products</p> <p>The following products are required:</p> <div style="background-color: #fff9c4; padding: 5px;"> <p>i Note</p> <p>xx = 61 (V6R1) and xx = 70 (V7R1, V7R2 and V7R3)</p> </div> <ul style="list-style-type: none"> • 57<xx>TC1 option *BASE – IBM TCP/IP Connectivity Utilities for i • 57<xx>SS1 option *BASE – i5/OS • 57<xx>SS1 option 1 – Extended Base Support • 57<xx>SS1 option 2 – Online Information • 57<xx>SS1 option 3 – Extended Base Directory Support • 57<xx>SS1 option 12 – Host Servers • 57<xx>SS1 option 13 – System Openness Includes • 57<xx>SS1 option 21 – Extended NLS Support • 57<xx>SS1 option 30 – Qshell • 57<xx>SS1 option 33 – Portable Application Solutions Environment (PASE)
National Language Support (NLS)	Make sure that National Language Support (NLS) and corresponding locales are installed.

Table 7: Other Requirements

Requirement	Values and Activities
Minimum Web Browser	<p>Make sure that you have at least one of the following web browsers installed on the host where you run the installer GUI:</p> <ul style="list-style-type: none"> • Internet Explorer 9.0 or higher • Mozilla Firefox • Google Chrome <p>You need this to be able to display the Evaluation Form and send it to SAP.</p>

Requirement	Values and Activities
Host Name	<p>To find out physical host names, open a command prompt and enter hostname.</p> <div style="background-color: #fff9c4; padding: 5px;"> <p>i Note</p> <p>Instead of using the command prompt, you <code>CALL QP2TERM</code> on IBM i.</p> </div> <p>For more information about the allowed host name length and characters allowed for SAP system instance hosts, see SAP Note 611361.</p> <p>If you want to use virtual host names, see SAP Note 962955.</p>
Login Shell	<p>The installer only prompts you for this parameter if you use a login shell other than the recommended C shell (csh).</p> <p>For more information, see SAP Note 202227.</p> <p>On IBM i, you do not have to add or change any entry in the login shell input field.</p>
Shared file systems for decentralized systems	<p>If application servers are installed decentralized, then a "shared" file system must be installed, for example Network File System (NFS).</p>
Installer GUI Host	<p>Windows or Linux PC to start the installer GUI</p>

2.1.2 Installing English as a Secondary Language

Use

On every IBM i where English is not the primary language, you must install English as the secondary language library. This is necessary for SAP to be able to provide support.

i Note

To check if English is already installed on your IBM i as a secondary language, enter `GO LICPGM` on the IBM i command line and use option **20**. If one of the following secondary language libraries is displayed, you have already installed English as a secondary language library: `QSYS2924`, `QSYS2938`, `QSYS2959`, or `QSYS2984`.

Procedure

1. On the command line, enter `GO LICPGM`
2. Enter option **21** (install secondary languages).
3. Enter option **1** to select any of the following libraries: `QSYS2924`, `QSYS2938`, `QSYS2959`, or `QSYS2984`.

2.2 Basic Installation Parameters

The tables below list the basic system parameters that you need to determine before you start the installation. For all other SAP system parameters, use the F1 help in the installer screens.

Table 8:

Parameters	Description
SAP system mount directory	<p><code>/<sapmnt></code> is the base directory for the SAP system.</p> <p>For <code>/<sapmnt></code> you can use a directory of your choice.</p> <p>Do not add <code><SAPSID></code> as subdirectory because the system adds this directory automatically.</p> <div style="background-color: #fff9c4; padding: 10px;"> <p> Example</p> <p>If you enter <code>/<sapmnt></code>, the system creates the directory <code>/<sapmnt>/<SAPSID></code>.</p> </div>
SAP System ID <code><SAPSID></code>	<p>The SAP System ID <code><SAPSID></code> identifies the whole SAP system.</p> <div style="background-color: #fff9c4; padding: 10px;"> <p> Caution</p> <p>Choose your SAP system ID carefully. You cannot change the SAP system ID after the installation.</p> </div> <p>Make sure that your SAP system ID:</p> <ul style="list-style-type: none"> • Consists of exactly three alphanumeric characters • Contains only uppercase letters • Has a letter for the first character • Does not include any of the reserved IDs listed in SAP Note 1979280. <div style="background-color: #fff9c4; padding: 10px;"> <p> Caution</p> <p>You must choose an SAP system ID that is different from the SAP system ID of the central instance of the SAP system for which you want to use the standalone Gateway.</p> </div>
Instance Number	<p>Instance Number:</p> <p>Technical identifier for internal processes. Consists of a two-digit number from 00 to 98. The instance number must be unique on a host. That is, if more than one SAP instance is running on the same host, these instances must be assigned different numbers.</p>

Parameters	Description
Operating System (OS) User	<p>The installer creates the users <SID>ADM, <SID>OFR, <SID><nn>, and SAPSE<SID>.</p> <p>The installer prompts you to assign a password during the input phase of the installation.</p>

3 Preparation

3.1 SAP Directories

The installer automatically creates the directories listed in the following figures and tables.

Before running the installation, you have to set up the required file systems manually. In addition, you have to make sure that the required disk space for the directories to be installed is available on the relevant hard disks.

The figure below assumes that you have set up one file system for the SAP system mount directory `<sapmnt>` and one file system for the `/usr/sap` directory. However, you have to decide for which directories you want to set up separate file systems. If you do not set up any file system on your installation host, the installer creates all directories in the `root` directory `/`.

The installer prompts you only for the `<sapmnt>` directory during the installation. See also [Basic SAP System Parameters \[page 14\]](#).

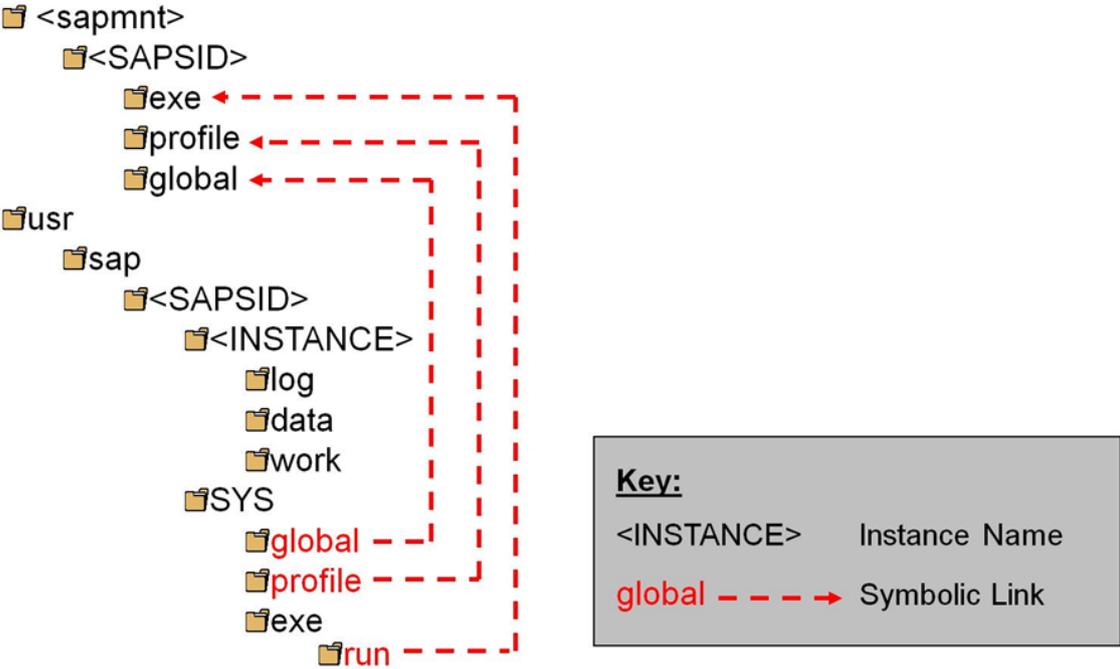


Figure 1:

The instance name (`<INSTANCE>`) of the Gateway instance is `G<Instance_Number>`, for example `G00`.

SAP Directories in Detail

i Note

The listed space requirements are initial SAP requirements.

Depending on your operating system, you might also have to add space for administrative purposes.

Table 9:

Directory Name	Description	Space Required
<code><SAPmnt>/<SAPSID></code>	<p>The default name for the SAP system mount directory is <code>sapmnt</code>.</p> <ul style="list-style-type: none"><code>exe</code> Contains executable kernel programs<code>global</code> Contains log files<code>profile</code> Contains the start and operations profiles of all instances	<p>Only valid for 'OS Family':</p> <p>650 MB</p> <p>End of 'OS Family':</p>
<code>/usr/sap/<SAPSID></code>	<p>There are subdirectories of <code>/usr/sap/<SAPSID>/SYS</code> with symbolic links to subdirectories of <code><SAPmnt>/<SAPSID></code>:</p>	<p>Only valid for 'OS Family':</p> <p>15 MB</p> <p>End of 'OS Family':</p>

3.2 Using Virtual Host Names

You can use one or more virtual TCP/IP host names for SAP servers within an SAP server landscape to hide their physical network identities from each other. This can be useful when quickly moving SAP servers or complete server landscapes to alternative hardware without having to reinstall or reconfigure.

Prerequisites

Make sure that the virtual host name can be correctly resolved in your Domain Name System (DNS) setup.

Procedure

Proceed as described in SAP Note [1624061](#).

3.3 Preparing an IBM i User Profile

Use

For the installation you need to create a user account on the IBM i you want to install.

The following requirement applies:

- **SCM Only:**
The IBM i installation user profile must have user class *SECOFR and all special authorities that belong to user QSECOFR.

Procedure

i Note

The user name SAPIUSR and the password SAP are used as examples in the procedures.

Enter the following command:

```
CRTUSRPRF USRPRF(SAPIUSR) PASSWORD(SAP) USRCLS(*SECOFR) TEXT('SAP installation user') SPCAUT(*USRCLS) OWNER(*USRPRF) LANGID(ENU) CNTRYID(US) CCSID(500) LOCALE(*NONE)
```

i Note

In previous releases, we recommended that you create the user SAPINST on IBM i to install the SAP system. In the current release, a group SAPINST is created generically on all platforms and is used for the installation of the SAP system. If the user SAPINST already exists on your system, you must delete this user. If you do not want to delete this user for any reason, you must add to the user profile SAPINST the feature of a group by adding SAPINST to the group of a different user profile such as SAPIUSR. To do this, use the following command:

```
CHGUSRPRF USRPRF(SAPIUSR) GRPPRF(SAPINST)
```

Now the user SAPINST can also be used as a group by the installer.

i Note

If you have already an old installation user and you want to make sure this user is configured correctly for your next SAP system installation, call the following command:

```
CHGUSRPRF USRPRF(SAPIUSR) TEXT('SAP installation user') SPCAUT(*USRCLS) OWNER(*USRPRF) LANGID(ENU) CNTRYID(US) CCSID(500) LOCALE(*NONE)
```

i Note

In a distributed environment, the installation user must have the same name and password on all hosts so that the required remote access permissions are available. For example, the profile directory on the global host should be accessible to the installation user of a remote dialog instance.

3.4 Enable the User QSECOFR

Use

The user QSECOFR is the standard administrator user on IBM i. This user has the most authority. For an installation on IBM i, the user QSECOFR must be enabled. Although for an SAP system installation you only need the installation user, the SAP kernel tools on IBM i need some adopted permissions from the QSECOFR. If the user QSECOFR is disabled this will lead to errors when the SAP kernel tools are called such as CRTR3INST.

Procedure

1. To check the status of the user profile QSECOFR use the following command as your installation user:
DSPUSRPRF USRPRF(QSECOFR)
2. To enable the user QSECOFR use the following command as your installation user:
CHGUSRPRF USRPRF(QSECOFR) STATUS(*ENABLED)

i Note

In a distributed environment, the installation user must have the same name and password on all hosts so that the required remote access permissions are available. For example, the profile directory on the global host should be accessible to the installation user of a remote dialog instance.

➔ Recommendation

Check also if the password of the user QSECOFR is expired. To do this, login as QSECOFR. When the password is already expired you will be asked for a new password. Set a new password and the password of QSECOFR is then no longer expired.

Only when the password of the QSECOFR is not expired the installation procedure will finish successfully.

3.5 Preparing the Installation Media

This section describes how to prepare the installation media.

Installation media are available as follows:

- The Software Provisioning Manager 1.0 archive containing the installer.
You always have to download the latest version of the Software Provisioning Manager 1.0 archive.
- The media containing the software to be installed, which are available as follows:
 - You normally obtain the physical installation media as part of the installation package.
 - You can also download the installation media apart from the Software Provisioning Manager 1.0 archive from SAP Service Marketplace, as described at the end of this section.

You need several media during an SAP system installation. We recommend that you copy all relevant media for an instance installation to the IFS of the IBM i host before you install the instance.

For more information, see the section [Copying the Installation Media Manually to your IBM i \[page 24\]](#).

If you did not do so already, make sure you have configured your TCP/IP as described in SAP Note [92589](#). Do not forget afterwards to perform an IPL to make the change effective. Otherwise, copy performance is poor from your local Windows media drive or your local Windows filesystem to the IFS on your IBM i.

Related Information

[Downloading the Software Provisioning Manager Archive \[page 20\]](#)

[Downloading Installation Media \[page 23\]](#)

[Copying the Installation Media Manually to Your IBM i \[page 24\]](#)

[Using the Physical Media from the Installation Package \[page 22\]](#)

3.5.1 Downloading the Software Provisioning Manager Archive

You always have to download and unpack the Software Provisioning Manager 1.0 archive (70SWPM10SP<Support_Package_Number>_<Version_Number>.SAR) from the SAP Software Download Center because you must use the latest version.

Prerequisites

Make sure the latest version of the `SAPCAR` archiving tool is available on your Windows PC.

You require the `SAPCAR` archiving tool to be able to unpack software component archives (*.SAR files), which is the format of software lifecycle media and tools that you can download from the SAP Software Download Center.

If required, you can download the latest Windows version of SAPCAR to your Windows PC from:

<http://support.sap.com/swdc>  [Software Downloads](#)  [SUPPORT PACKAGES & PATCHES](#)  [By Alphabetical Index \(A-Z\)](#)  [S](#)  [SAPCAR](#) 

For more information about SAPCAR, see SAP Note [212876](#) .

Procedure

1. Download the latest version of the Software Provisioning Manager 1.0 archive 70SWPM10SP<Support_Package_Number>_<Version_Number>.SAR from:

<http://support.sap.com/swdc>  [Software Downloads](#)  [SUPPORT PACKAGES & PATCHES](#)  [By Alphabetical Index \(A-Z\)](#)  [S](#)  [SOFTWARE PROVISIONING MANAGER](#) 

Note

If you have an operating system version that has been initially released with SAP kernel 7.2<x> but is no longer supported for SAP kernel 7.21 or 7.22, instead of the 70SWPM*.SAR archive you must download the RMOS70SWPM*.SAR archive for these outdated operating system versions. For more information, see [About Software Provisioning Manager \[page 6\]](#).

2. We recommend that you copy the software provisioning manager 1.0 archive to the IFS of the IBM i host.
3. If you did not do so already, make sure you have configured your TCP/IP as described in SAP Note [92589](#) . Do not forget afterwards to perform an IPL to make the change effective. Otherwise, copy performance is poor from your local Windows optical media drive or Windows file system to the IFS on your IBM i.
4. If you want to verify the signature of the 70SWPM10SP<Support_Package_Number>_<Version_Number>.SAR archive, execute the following commands on your Windows PC:

Note

In addition, check SAP Note [1680045](#)  whether additional information is available.

```
<Path to SAPCAR>\sapcar.exe -tVvf<Path to Temporary Directory>  
\70SWPM10SP<Support_Package_Number>_<Version_Number>.SAR
```

5. Unpack the Software Provisioning Manager archive to a local directory on your Windows PC using the following command:

```
<Path to SAPCAR>\sapcar.exe -xvf <Path to Temporary Directory>  
\70SWPM10SP<Support_Package_Number>_<Version_Number>.SAR
```

Note

Make sure that all users have read permissions for the directory where you want to unpack the installer.

Caution

Make sure that you unpack the Software Provisioning Manager archive to a dedicated folder. Do not unpack it to the same folder as other installation media.

3.5.2 Using the Physical Media from the Installation Package

This section describes how you use the physical installation media as part of the installation package.

Procedure

1. Identify the required media for your installation as listed below.

Note

For more information about which kernel version to use, see SAP Note [1680045](#). In addition, check the Product Availability Matrix at <http://support.sap.com/pam>.

The following table shows the media required for the installation of a standalone Gateway instance:

Table 10:

Installation Media	Description
Software Provisioning Manager 1.0	Software provisioning manager 1.0 archive 70SWPM10SP<Support_Package_Number>_<Version_Number>.SAR
SAP Kernel	Non-Unicode (NUC) Kernel (folder K_<Version>_N_<OS>) where N means "non-Unicode".

2. Make the installation media available on the installation host as follows:
 - a. Download and unpack the latest version of Software Provisioning Manager as described in [Downloading the Software Provisioning Manager Archive \[page 20\]](#).
 - b. Make the installation media containing the software to be installed available.

To make the media available, copy the media manually to your IBM i host **before** you start the installation. Do not use the Media Browser dialog **during** the installation to copy the entire installation media from Windows to your IBM i host. Make sure that all users have read permissions for the directory where you want to unpack the installer.

You need to [copy the installation media manually to your IBM i \[page 24\]](#).

Caution

- If you copy the media to disk, make sure that the paths to the destination location of the copied media do not contain any blanks and commas.

3.5.3 Downloading Installation Media

This section describes how you download installation media from the SAP Software Download Center.

Procedure

1. Download and unpack the latest version of Software Provisioning Manager as described in [Downloading the Software Provisioning Manager Archive \[page 20\]](#).
2. Create a download directory on your Windows installation host from where you will transfer the installation media to your IBM i host (for example, `c:\tmp\download`).
3. Create a download directory on the host on which you want to run the installer.
4. Create a download directory on the host on which you want to run the installer.
5. Identify **all** download objects that belong to one installation medium according to the following criteria:

Note

Installation media might be split into several files. In this case, you have to reassemble the required files after the download.

- Download path or location:
You can download installation media from the SAP Software Download Center using one of the following paths:
 - <http://support.sap.com/swdc> > *Software Downloads* > *Installations & Upgrades* > *By Alphabetical Index (A-Z)* > *<First_Letter_Of_Product>* > *<Product_Version>*
 - <http://support.sap.com/swdc> > *Software Downloads* > *Installations & Upgrades* > *By Category* > *<Product>* > *<Product_Version>*
 - For downloading the kernel media, proceed as described in the *Kernel Media* section of SAP Note [1680045](#).
 - Material number
All download objects that are part of an installation medium have the same material number and an individual sequence number:
`<Material_Number>_<Sequence_Number>`
-  Example

```
51031387_1
51031387_2
...
```
- Title
All objects that are part of a medium have the same title, such as `<Solution><Media_Name><OS>` or `<Database>RDBMS<OS>` for RDBMS media.
6. Download the objects to the download directory.

7. To correctly recombine the media that are split into small parts, unpack all parts into the same directory.

In the unpacking directory, the system creates a subdirectory with a short text describing the medium and copies the data into it. The data is now all in the correct directory, the same as on the medium that was physically produced. For more information, see SAP Note [1258173](#).

Caution

Make sure that you unpack each installation media to a separate folder. Do not unpack installation media to the same folder where you unpack the Software Provisioning Manager archive.

Related Information

[Downloading Installation Media \[page 23\]](#)

3.5.4 Copying the Installation Media Manually to Your IBM i

Use

This section describes a secure way to copy the required installation media from your Windows PC to your IBM i. To copy the media, you have to use a binary share `ROOTBIN`. This guarantees that the content of the media is copied correctly from the Windows PC to your IBM i. No copied content is corrupted, and no copied files with longer file names are shortened by a converting share.

Procedure

Creating a Binary Share `ROOTBIN` on IBM i

If you do not already have a binary share `ROOTBIN` on your IBM i, and you want to copy manually media from your Windows PC into the IFS of your IBM i, you have to create this share manually using the IBM Systems Director Navigator for i. To do so, proceed as follows:

1. Start the IBM Systems Director Navigator for i on your Windows PC.
2. Connect to your IBM i using *My Connections*.
3. To create or change the share `ROOTBIN`, choose **File Systems > File Shares**.
4. Right-click **File Shares > Open i5/OS Netserver**.
A new screen *i5/OS Netserver* appears.
5. Click the folder *Shared Objects* to see the shares.
6. To check the already existing share `ROOTBIN` or create a new share `ROOTBIN`, right-click **New > File**.

Note

The share `ROOTBIN` must have the access permission *Read/Write* and the path name should be `/`.

7. On the *Text Conversion* tab, do **not** select *Allow file text conversion*.
8. To save the share ROOTBIN, press **OK**.

Now you have created the share ROOTBIN on your IBM i.

Copying the Installation Media Manually Using the Binary Share ROOTBIN

1. To open the command prompt on Windows, choose **Start > Run**.
2. Enter `cmd.exe`.
3. Press **OK**.
The command prompt appears.
4. In the command prompt, enter `net use`.
All network connections to shared resources are displayed.
5. Check if you have a connection to your IBM i.
If you find `\\<IBM_i_Host_Name>\ROOTBIN` in the *Remote* column and a drive directory letter in the *Local* column, you have already established the required connection to your IBM i.
Otherwise, you have to establish this connection. To do this, enter:
`net use X: \\<IBM_i_Host_Name>\ROOTBIN SAP /USER:SAPIUSR`
x: is now your new network drive to share `\\<IBM_i_Host_Name>\ROOTBIN` to your IFS on the IBM i. If x: is already in use, choose another drive letter that is free.

i Note

We use the user name SAPIUSR and the password SAP as examples. For more information about how to create the installation user SAPIUSR, see [Preparing an IBM i User Profile \[page 18\]](#).

6. To change to the new network drive, enter `x:` in the command prompt.
7. Create the subdirectories in your IFS where you want to copy the required media.
For each media, enter:
`mkdir /tmp/<SAPSID>/<Media_Name>` or
`mkdir /tmp/<SAPSID>/<Unpack_Directory>`

i Note

You must avoid blanks or commas in the media path name.

8. Copy the installation media from your Windows drive (for example D:\) or your download directory to the IFS of your IBM i host by entering the following command:
`xcopy D:\<Media> X:\tmp\<SAPSID>\<Media_Name> /E` or
`xcopy C:\tmp\download\<Unpack_Directory> X:\tmp\<SAPSID>\<Unpack_Directory> /E`

i Note

You must copy the root directory of the media respectively of the `<Unpack_Directory>` and all required subdirectories to the IFS of your IBM i.

9. For each required media, create a subdirectory and copy the required media.

i Note

For advanced users only: Instead of copying the complete media you also can copy only dedicated subdirectories. For IBM i the following directories have to be copied:

4 Installation

4.1 Prerequisites for Running the Installer

Make sure you fulfil the following prerequisites before running the installer:

- Make sure that you have logged on to your host as an installation user with similar authorization rights to QSECOFR. For more information about how to create an installation user, see [Preparing an IBM i User Profile \[page 18\]](#).
- Make sure that you have specified the most important SAP system parameters as described in [Basic SAP System Installation Parameters \[page 14\]](#) **before** you start the installation.
- Check the value of the environment variable TEMP, TMP, or TMPDIR:

Table 11: Shells and Commands

Shell Used	Command
Command prompt	<code>WRKENVVAR</code>
Qp2Term	<code>echo \$TEMP</code>

- Make sure that your operating system does **not** delete the contents of the temporary directory /tmp or the contents of the directories to which the variable TEMP, TMP, or TMPDIR points – for example, by using a crontab entry.
 - Make sure that you have at least 60 MB of free space in the installer directory for each installer option. In addition, you need 200 MB free space for the installer executables. If you cannot provide 200 MB free space in the temporary directory, you can set one of the environment variables TEMP, TMP, or TMPDIR to another directory with 200 MB free space for the installer executables.
- Make sure that your DISPLAY environment variable is set to `<Host_Name>:0.0`, where `<Host_Name>` is the host on which you want to display the GUI.

Table 12:

Shell Used	Command
Command prompt	<code>ADDENVVAR ENVVAR(DISPLAY) VALUE('<hostname>:0.0') REPLACE(*YES)</code>
Qp2Term	<code>export DISPLAY=<host_name>:0.0</code>

- Make sure that the following ports are not used by other processes:
 - Port 21212 is used by default for communication between the installer GUI server and the installer GUI client.
If this port cannot be used, you can assign a free port number by executing `sapinst` with the following command line parameter:
`SAPINST_DIALOG_PORT=<Port_Number>`

- Port 4239 is used by default for displaying the feedback evaluation form at the end of the installer processing.
The filled-out evaluation form is then sent to SAP using HTTPS.
If this port cannot be used, you can assign a free port number by executing `sapinst` with the following command line parameter:
`SAPINST_HTTP_PORT=<Port_Number>`

Example

```
CD DIR('<Path_To_Unpack_Directory>')  
  
CALL PGM(QP2TERM) PARM('./sapinst' '-nogui' 'SAPINST_DIALOG_PORT=21212')
```

4.2 Running the Installer

This section describes how to run the installation tool Software Provisioning Manager 1.0 (the “installer” for short).

Software Provisioning Manager 1.0 includes a GUI client and a GUI server, which both use Java. In the following, GUI client and GUI server are called the “installer GUI”. For more information about the installer, see [Useful Information About the Installer \[page 31\]](#).

This procedure describes an installation where the installer and the installer GUI are running on the same host.

If you need to see the installation on a remote display, we recommend that you [perform a remote installation \[page 34\]](#), where the installer GUI is running on a **separate** host from the installer.

Alternatively you can use an X server for Microsoft Windows or other remote desktop tools for remote access to the installer GUI on Windows workstations. For more information, see SAP Note [1170809](#).

➔ Recommendation

Since IBM i does not have GUI capabilities, we recommend that you perform a remote installation with the installer. You first have to start the installer without the installer GUI on the IBM i host using `QP2TERM` and then you have to start the installer GUI on the Windows installation host. Afterwards the installer behaves the same as if started completely on one host. For more information, see [Performing a Remote Installation \[page 34\]](#) and [Starting the Installer GUI Separately \[page 36\]](#). The remote installation is the default installation option on IBM i. Nevertheless, the section *Running the Installer* is used to explain more details about the installer.

However, the remote GUI display (using the `DISPLAY` environment variable) is possible, but this is considered an advanced user option.

Prerequisites

For more information, see [Prerequisites for Running the Installer \[page 27\]](#).

Procedure

1. Make the Installation Master Media available.
You should make sure the installation media are available **locally**. We do **not** recommend that you use Network File System (NFS), because reading from media mounted with NFS might fail.
2. Log on as the installation user on IBM i. For information, see [Preparing an IBM i User Profile \[page 18\]](#).
3. Start the installer from the directory to which you unpacked the Software Provisioning Manager archive by executing the following commands:

```
CD DIR('<Path_To_Unpack_Directory>')  
CALL PGM(QP2TERM) PARM('./sapinst')
```

i Note

As a default, there is no GUI on IBM i, so you do not see the *Welcome* screen for the installer. You must start the installer with the parameter '**-nogui**' and the installer GUI separately on a Windows platform able to run 32-bit programs. For more information, see [perform a remote installation with installer \[page 34\]](#).

i Note

If you want to use a virtual host name, start the installer with the installer property `SAPINST_USE_HOSTNAME` as follows:

```
CALL PGM(QP2TERM) PARM('./sapinst' 'SAPINST_USE_HOSTNAME=<Virtual_Host_Name>')
```

For more information, see [Using Virtual Host Names \[page 17\]](#).

⚠ Caution

Make sure that the installation directory is not mounted with NFS, otherwise there might be problems when the Java Virtual Machine is started.

4. On the *Welcome* screen, choose the following options in the following sequence:
 - To install a new standalone Gateway instance, go to **>> <Product> >** and choose: **>> Standalone Engines > Gateway >**
 - To rename an existing standalone Gateway instance, go to *System Rename* and choose: **>> Distributed System > System Rename for Gateway Instance >**
 - To uninstall an existing standalone Gateway instance, go to **>> <Product> > Software Life-Cycle Options > Uninstall >** and choose: **>> Uninstall - Systems / Standalone Engine / Optional Standalone Unit >**
5. Choose *Next*.
6. Follow the instructions on the installer input screens and enter the required parameters.

i Note

For more information about the input parameters, position the cursor on the parameter and press **F1**.

After you have entered all requested input parameters, the installer displays the *Parameter Summary* screen. This screen shows both the parameters that you entered and those that the installer set by default. If required, you can revise the parameters before starting the installation.

7. To start the installation, choose *Start*.

The installer starts the installation and displays the progress of the installation.

When the installation option has finished successfully, the installer displays the message *Execution of <Option Name> has completed*.

8. If required, delete directories with the name `sapinst_exe.xxxxxx.xxxx` after the installer has finished. Sometimes these remain in the temporary directory.

i Note

If there are errors with the installer extraction process, you can find the log file `dev_selfex.out` in the temporary directory.

➔ Recommendation

Keep all installation directories until you are sure that the system, including all instances, is completely and correctly installed. Once the system is completely and correctly installed, make a copy of the installation directories with all their contents. Save the copy to a physically separate medium, such as a medium or a USB drive that is separate from your installation hosts.

This might be useful for analyzing issues occurring later when you use the system. For security reasons, do **not** keep installation directories on installation hosts, but make sure that you delete them after saving them separately.

9. We recommend that you delete the directory `/home/<Installation_User>/ .sdtgui`.
10. If you copied installation media to your hard disk, you can delete these files when the installation has successfully completed.

4.3 Additional Information About the Installer

The following sections provide additional information about the installer:

- [Useful Information About the Installer \[page 31\]](#)
- [Interrupted Installation \[page 32\]](#)
- [Performing a Remote Installation \[page 34\]](#)
- [Starting the Installer GUI Separately \[page 36\]](#)
- [Running the Installer with Accessibility Mode \[page 38\]](#)
- [Troubleshooting with the Installer \[page 39\]](#)

4.3.1 Useful Information About the Installer

This section contains some useful technical background information about the installer and the installer GUI.

- When you start the installer, it automatically starts the installer GUI.
- The installer creates the installation directory `sapinst_instdir` directly below the temporary directory. The installer finds the temporary directory by checking the value of the following environment variables in the following sequence: `TEMP`, `TMP`, and `TMPDIR`. If no value is set for these variables, the installer creates the installation directory `sapinst_instdir` directly below the `/tmp` directory by default. If you want the installer to create the installation directory `sapinst_instdir` in another directory, set the environment variable `TEMP` to this directory before you start the installer.

Table 16:

Shell Used	Command
Command prompt	<code>ADDENVVAR ENVVAR(TEMP) VALUE('<Directory>') REPLACE (*YES)</code>
Qp2Term	<code>export TEMP=<Directory></code>

Caution

Make sure that the installation directory is not mounted with NFS, or there might be problems when the Java Virtual Machine is started.

Recommendation

We recommend that you keep all installation directories until the system is completely and correctly installed.

- For each installation option, the installer creates a subdirectory located in the `sapinst_instdir` directory.
- The installer extracts itself to a temporary directory called `sapinst_exe.xxxxxx.xxxx`, which is located in the environment variables `TEMP`, `TMP`, or `TMPDIR`. These files are deleted after the installer has stopped running. The temporary directory `sapinst_exe.xxxxxx.xxxx` sometimes remains undeleted. You can safely delete it. The temporary directory also contains the log file `dev_selfex.out` from the extraction process, which might be useful if an error occurs.

Caution

If the installer cannot find a temporary directory, the installation terminates with the error `FCO-00058`.

- To see a list of all available installer properties, enter the following commands:
`CD DIR('<Path_To_Unpack_Directory>')`
`CALL PGM(QP2TERM) PARM('./sapinst' '-p')`
- If you need to run the installer in accessibility mode, proceed as described in [Running the Installer in Accessibility Mode \[page 38\]](#).

- If required, you can stop the installer by choosing **SAPinst** > **Exit Process** in the installer GUI menu on your Windows PC.

Note

If you need to terminate the installer, press `Shift` + `Esc` then `2` on your IBM i host.

- If you want to install an SAP system in unattended mode, see SAP Note [2230669](#) which describes an improved procedure using `inifile.params`.

4.3.2 Interrupted Processing of the Installer

Use

The processing of the installer might be interrupted for one of the following reasons:

- An error occurred during the *Define Parameters* or *Execute* phase:
The installer does not abort the installation in error situations. If an error occurs, the installation pauses and a dialog box appears. The dialog box contains a short description of the choices listed in the table below as well as a path to a log file that contains detailed information about the error.
- You interrupted the installation by choosing *Exit Process* in the *SAPinst* menu.

Caution

If you stop an option in the *Execute* phase, any system or component **installed** by this option is incomplete and not ready to be used. Any system or component **uninstalled** by this option is not completely uninstalled.

The following table describes the options in the dialog box:

Table 17:

Option	Definition
<i>Retry</i>	<p>The installer retries the installation from the point of failure without repeating any of the previous steps.</p> <p>This is possible because the installer records the installation progress in the <code>keydb.xml</code> file.</p> <p>We recommend that you view the entries in the log files, try to solve the problem, and then choose <i>Retry</i>.</p> <p>If the same or a different error occurs, the installer displays the same dialog box again.</p>

Option	Definition
<i>Stop</i>	The installer stops the installation, closing the dialog box, the installer GUI, and the GUI server. The installer records the installation progress in the <code>keydb.xml</code> file. Therefore, you can continue the installation from the point of failure without repeating any of the previous steps (see the procedure below).
<i>Continue</i>	The installer continues the installation from the current point.
<i>View Log</i>	Access installation log files.

Procedure

This procedure describes the steps to restart an installation, which you stopped by choosing *Stop*, or to continue an interrupted installation after an error.

1. Log on to the installation host as a user with the required permissions as described in [Running the Installer \[page 28\]](#).
2. Make available your installation media.

i Note

Make sure that the installation media is available locally. We do not recommend using Network File System (NFS).

3. Restart the installer from the directory to which you unpacked the Software Provisioning Manager archive. Enter the following commands:

```
CD DIR('<Path_To_Unpack_Directory>')
CALL PGM(QP2TERM) PARM('./sapinst') or
CALL PGM(QP2TERM) PARM('./sapinst' '-nogui')
```

 (using the default: remote installer GUI)

i Note

As a default, there is no GUI on IBM i, so you do not see the *Welcome* screen for the installer. You must start the installer with the parameter '**-nogui**' and the installer GUI separately on a Windows platform. For more information, see [Performing a Remote Installation \[page 34\]](#).

4. From the tree structure on the *Welcome* screen, select the installation option that you want to continue and choose *Next*.
The *What do you want to do?* screen appears.
5. On the *What do you want to do?* screen, decide between the following alternatives and continue with *Next*:

Table 18:

Alternative	Behavior
<i>Run a new option</i>	<p>The installer does not continue the interrupted installation option. Instead, it moves the content of the old installation directory and all installation-specific files to a backup directory. Afterwards, you can no longer continue the old installation option.</p> <p>The following naming convention is used for the backup directory:</p> <pre>log_<Day>_<Month>_<Year>_<Hours>_<Minutes>_<Seconds></pre> <div style="background-color: #fff9c4; padding: 5px;"> <p> Example</p> <pre>log_01_Oct_2008_13_47_56</pre> </div> <div style="background-color: #fff9c4; padding: 5px;"> <p> Caution</p> <p>The installer moves all the files and folders to a new log directory, even if these files and folders are owned by other users. If there are any processes currently running on these files and folders, they might no longer function properly.</p> </div>
<i>Continue with the old option</i>	The installer continues the interrupted installation option from the point of failure.

4.3.3 Performing a Remote Installation

You use this procedure to install your SAP system on a **remote** host. In this case, the installer runs on the **remote host**, and the installer GUI runs on the **local** host. The local host is the host from which you control the installation with the installer GUI. The installer GUI connects using a secure SSL connection to the installer.

If your security policy requires that the person performing the installation by running the installer GUI on the local host is not allowed to know `QSECOFR` like credentials on the remote host, you can specify another operating system user for authentication purposes. You do this using the `SAPINST_REMOTE_ACCESS_USER` parameter when starting the `sapinst` executable from the command line. You have to confirm that the user is a trusted one. For more information, see SAP Note [1745524](#).

Alternatively you can use an X server for Microsoft Windows or other remote desktop tools for remote access to the installer GUI on Windows workstations. For more information, see SAP Note [1170809](#).

Prerequisites

-
- Both computers are in the same network and can ping each other.
To test this:
 1. Log on to your remote host (IBM i) and enter the command `PING RMTSYS('<Local_Host>')`.
 2. Log on to the local host (Windows PC) and enter the command `ping <Remote_Host>`.

- Make sure that the `sapinst` executable on the remote host and the `sapinstgui` executable on the local host have exactly the same version. You can check this by using the option `-sfxver` as described in the procedure below and in the procedure in [Starting the Installer GUI Separately \[page 36\]](#).
- If you need to specify another operating system user with the `SAPINST_REMOTE_ACCESS_USER` command line parameter, make sure that this user exists on the remote host and that this user owns an existing home directory on IBM i (`/home/<User_Name>`).

Procedure

1. Log on to your host as the installation user with similar authorization rights to `QSECOFR`. For more information, see [Preparing an IBM i User Profile \[page 18\]](#).

Caution

Make sure that the installation user has not set any environment variables for a different SAP system or database by using the command `WRKENVVAR`.

2. Make the installation media available on the remote host.
For more information, see [Preparing the Installation Media \[page 20\]](#).
3. Check the version of the `sapinst` executable by entering the following commands:

```
CD DIR('<Path_To_Unpack_Directory>')
CALL PGM(QP2TERM) PARM('./sapinst' '-sfxver')
```

The version of the `sapinst` executable must be exactly the same as the version of the `sapinstgui` executable on the local host (see also [Starting the Installer GUI Separately \[page 36\]](#)).

4. Start the installer by entering the following commands:

```
CD DIR('<Path_To_Unpack_Directory>')
CALL PGM(QP2TERM) PARM('./sapinst' '-nogui')
```

Note

If you need to specify another operating system user for authentication purposes, this command is as follows:

```
CALL PGM(QP2TERM) PARM('./sapinst' '-nogui'
'SAPINST_REMOTE_ACCESS_USER=<Specified_OS_User>')
```

The installer now starts and waits for the connection to the installer GUI. You see the following at the command prompt:

```
guiengine: no GUI connected; waiting for a connection on host <Host_Name>, port
<Port_Number> to continue with the installation
```

5. There is no GUI on IBM i, so you do not see the installer *Welcome* screen. As a default, you must start the installer GUI separately on a Windows platform. For more information, see [Starting the Installer GUI Separately \[page 36\]](#).

4.3.4 Starting the Installer GUI Separately

You use this procedure to start the installer GUI separately.

You need to start the installer GUI separately in the following cases:

- You are running IBM i and did not set a `DISPLAY` environment variable.
- You closed the installer GUI using **File > Close GUI only** from the installer menu while the installer is still running.
- You want to perform a remote installation, where the installer GUI runs on a different host from the installer. For more information, see [Performing a Remote Installation \[page 34\]](#).
- You want to run the installer in accessibility mode. In this case, you have to start the installer GUI separately on a Windows host as described below with the additional command line parameter `-accessible`. For more information, see [Running the Installer in Accessibility Mode \[page 38\]](#).

Caution

This is the default on IBM i. Since there is no GUI on IBM i, you must start the the installer GUI separately.

Prerequisites

- The host on which you want to start the installer GUI meets the prerequisites for starting the installer as described in [Prerequisites for Running the Installer \[page 27\]](#).

Note

If you want to run the installer on a Windows host, make sure that you meet the prerequisites for the installer listed in the relevant Windows guide.

- Make sure that the `sapinst` executable on the remote host and the `sapinstgui` executable on the local host have exactly the same version. You can check this by using the option `-sfxver` as described in the procedure below and in the procedure in [Performing a Remote Installation \[page 34\]](#).

Procedure

In this procedure, the following variables are used: `<Remote_Host>` is the name of the remote host, and `<Port_Number_Gui_Server_To_Gui_Client>` is the port the GUI server uses to communicate with the GUI client (21212 by default).

Note

If you want to run the installer GUI on a remote host, it is mandatory to start the installer using the `-nogui` property. If you have already started the installer without the `-nogui` property and want to run the GUI on a different host, you have to exit the installation process by choosing **SAPinst > Exit Process** and then

follow the steps described in [Interrupted Installation \[page 32\]](#). Use the `-nogui` property to restart the installer and start the installer GUI on the intended host.

Starting the Installer GUI on Windows

1. Make the installer software available on the host on which you want to start the installer GUI.
For more information, see [Preparing the Installation Media \[page 20\]](#).
2. Start the installer GUI by executing `<Drive>:\<Path_To_Unpack_Directory>\sapinstgui.exe` with the appropriate command line parameters:

i Note

If you start the installer GUI executable on Windows 7 or Windows 2008, you must use the option *Run as administrator*. Typically, you first start a command prompt using *Run as administrator*. Then in this command prompt, you enter the installer GUI command.

i Note

If you have a share `ROOTBIN` on your IBM i and you have mapped this share to the drive for example X, you can start the installer GUI using your copied unpack directory:

```
X: \tmp\<SAPSID>\<Path_To_Unpack_Directory>\sapinstgui.exe
```

For more information, see [Copying the Installation Media Manually to Your IBM i \[page 24\]](#).

By default the Windows `sapinstgui.exe` is part of the software provisioning manager archive for IBM i. Only when the file `sapinstgui.exe` is missing, you must download the Software Provisioning Manager archive for Windows .

- If you want to perform a remote installation, proceed as follows:
 1. Check the version of `sapinstgui.exe` by entering the following command:
`sapinstgui.exe -sfxver`
The version of the `sapinstgui` executable must be exactly the same as the version of the `sapinst` executable on the remote host (see also [Performing a Remote Installation \[page 34\]](#)).
 2. Start the installer GUI by entering the following command:
`sapinstgui.exe -host <Remote_Host> -port <Port_Number_Gui_Server_To_Gui_Client>`
 - If you closed the installer GUI using **File > Close GUI only** and want to reconnect to the installer, proceed as follows:
 - If you are performing a local installation with the installer and the installer GUI running on the same host, execute the following command:
`sapinstgui.exe -port <Port_Number_Gui_Server_To_Gui_Client>`
 - If you are performing a remote installation with the installer and the installer GUI running on different hosts, execute the following command:
`sapinstgui.exe -host <Remote_Host> -port <Port_Number_Gui_Server_To_Gui_Client>`
3. The installer GUI starts and connects to the installer.

Starting the Installer GUI on UNIX

1. Make the installer software available on the host on which you want to start the installer GUI.
For more information, see [Preparing the Installation Media \[page 20\]](#).

2. Start the `sapinstgui` executable with the appropriate command line parameters:
 - If you want to perform a remote installation, proceed as follows:
 1. Check the version of the `sapinstgui` executable by entering the following command:
`<Path_To_Unpack_Directory>/sapinstgui -sfxver`
 The version of the `sapinstgui` executable must be exactly the same as the version of the `sapinst` executable on the remote host (see also [Performing a Remote Installation \[page 34\]](#)).
 2. Start the installer GUI by entering the following command:
`<Path_To_Unpack_Directory>/sapinstgui -host <Remote_Host> -port <Port_Number_Gui_Server_To_Gui_Client>`
 - If you closed the installer GUI using **File > Close GUI only** and want to reconnect to the installer, proceed as follows:
 - If you are performing a local installation with the installer and the installer GUI running on the same host, execute the following command:
`<Path_To_Unpack_Directory>/sapinstgui -port <Port_Number_Gui_Server_To_Gui_Client>`
 - If you are performing a remote installation with the installer and the installer GUI running on different hosts, execute the following command:
`<Path_To_Unpack_Directory>/sapinstgui -host <Remote_Host> -port <Port_Number_Gui_Server_To_Gui_Client>`
3. The installer GUI starts and connects to the installer.

4.3.5 Running the Installer in Accessibility Mode

Use

You can also run the installer in accessibility mode. The following features are available:

- Keyboard access:
This feature is generally available for all operating systems.
- High-contrast color:
This feature is derived from the Windows display properties. Therefore, to enable this feature, perform a remote installation with the installer GUI running on a Windows host.
- Custom font setting:
This feature is derived from the Windows display properties. Therefore, to enable this feature, perform a remote installation with the installer GUI running on a Windows host.

Procedure

Activating and Adjusting Accessibility Settings on Windows

You first have to activate and adjust the relevant settings for the font size and color schemes **before** you start the installer or the installer GUI.

i Note

The following procedure applies for Windows Server 2012 and might be different when using another Windows operating system.

1. Right click on your Windows desktop and choose *Personalize*.
2. Select *Adjust font size (DPI)* and choose *Larger scale (120 DPI)*.
To define other font size schemes, choose *Custom DPI*.
3. In the right-hand pane, select *Window Color and Appearance*.
Select a color scheme from the *Color scheme* drop-down box.
To define your own color schemes, choose *Advanced*.

Running the Installer in Accessibility Mode

You perform a remote installation as follows:

1. Start the installer on the remote host by executing the following command from the command line as described in [Performing a Remote Installation \[page 34\]](#):
`./sapinst -nogui`
2. Start the installer GUI on a local Windows host by executing the following command from the command line as described in [Starting the Installer GUI Separately \[page 36\]](#):
`sapinstgui.exe -accessible -host <Remote_Host> -port <Port_Number_Gui_Server_To_Gui_Client>`

4.3.6 Troubleshooting with the Installer

This section tells you how to proceed when errors occur during the processing of the installer.

If an error occurs, the installer does one of the following:

- It stops processing
- It displays a dialog informing you about the error

Procedure

1. Check SAP Note [1548438](#) for known installer issues.
2. To view the log file, choose [View Logs](#).
3. If an error occurs during the [Define Parameters](#) or [Execute](#) phase, do one of the following:
 - Try to solve the problem
 - Stop the installer by choosing [Stop](#) from the error message or [SAPinst](#) > [Exit Process](#) in the tool menu.
For more information, see [Interrupted Installation \[page 32\]](#).After resolving the problem, you can continue the processing of the installer by choosing [Retry](#).
4. Check the log and trace files of the GUI server and the installer GUI in the directory `/home/<Installer_User>/ .sdtgui/` for errors.

-
- If GUI server or the installer GUI does not start, check the file `sdtstart.err` in the current `/home/<Installer_User>` directory.
 - If you use an X Server for Microsoft Windows or other remote desktop tools for the Remote Access of the installer GUI on Windows Workstations and you experience display problems such as missing repaints or refreshes, contact your X Server vendor. The vendor can give you information about whether this X Server supports Java Swing-based GUIs and also tell you about further requirements and restrictions. For more information, see SAP Note [1170809](#).
5. If you cannot resolve the problem, create a customer message using component BC-INS. For more information about using subcomponents of BC-INS, see SAP Note [1669327](#).

5 Post-Installation Activities

5.1 SAP Gateway Configuration

You have to configure SAP Gateway to be able to use it.

You find the configuration documentation in the [SAP Library \[page 8\]](#) at: ▶ [Application Platform by Key Capability](#) ▶ [Platform-Wide Services](#) ▶ [Connectivity](#) ▶ [SAP Gateway](#) ▶

6 Additional Information

6.1 Using Virtual Host Names

You can use one or more virtual TCP/IP host names for SAP servers within an SAP server landscape to hide their physical network identities from each other. This can be useful when quickly moving SAP servers or complete server landscapes to alternative hardware without having to reinstall or reconfigure.

Prerequisites

Make sure that the virtual host name can be correctly resolved in your Domain Name System (DNS) setup.

Procedure

Proceed as described in SAP Note [1624061](#).

6.2 Starting and Stopping the Instance Using Commands

Use

You can start and stop the Gateway instance by entering the commands `STARTSAP` and `STOPSAP`.

Procedure

Starting the Gateway Instance

1. Log on as user `<SID>ADM`.
2. Check that there are no active jobs for the Gateway instance that you have just installed. To do this, proceed as follows:
 1. Enter the following command for the Gateway instance:
`WRKACTJOB SBS (R3_<instance_number>)`
 2. If a job is displayed, stop it using command:
`ENDSBS SBS (R3_<instance_number>) OPTION (*IMMED)`

3. To start the Gateway instance, enter the following command and press **F4**:

STARTSAP

4. Enter the SAP system ID of the Gateway (for example, **C11**) and instance number (for example, **90**).

➔ Recommendation

We recommend that you retain the default value ***ENV** for the SAP system ID. ***ENV** is replaced by the correct value for the SAP system ID.

5. To check whether the Gateway is started successfully, enter the following command:

WRKACTJOB SBS (R3_nn)

i Note

The instance runs in its own subsystem R3_nn, where nn is the instance number.

Stopping the Gateway Instance

1. Log on as <SID>ADM.
2. To stop the Gateway instance, enter the following command and press **F4**:
STOPSAP
3. Enter the SAP system ID of the Gateway (for example, **C11**) and instance number (for example, **90**).

➔ Recommendation

We recommend that you retain the default value ***ENV** for the SAP system ID. ***ENV** is replaced by the correct value for the SAP system ID.

6.3 Uninstalling the Instance

Use

The following procedure describes how to uninstall a standalone Gateway instance using the installer.

Procedure

1. [Start the installer \[page 28\]](#).
2. On the Welcome screen, choose **► Software Life-Cycle Options ► Uninstall System / Standalone Engine / Optional Standalone Unit ►**.
3. Follow the instructions in the installer screens.

i Note

To find more information on each parameter during the *Define Parameters* phase of uninstalling, position the cursor on the field of the respective parameter and press **F1**.

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