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# **Installation Guide for Modeling Tools for SAP BW/4HANA and SAP BW powered by SAP HANA**

## **SAP BW Modeling Tools 1.24**

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# 1 Introduction

The Modeling Tools for SAP BW/4HANA and SAP BW powered by SAP HANA (in short BW Modeling Tools) represent a new modeling IDE (Integrated Development Environment) that is built on top of the Eclipse platform.

Their main objective is to support BW model developers working in the increasingly complex BI environments by providing them with state-of-the-art modeling tools. These tools include integration with SAP HANA modeling and consumption of SAP HANA elements in BW Open ODS views or CompositeProviders, with powerful UI (user interface) capabilities.

This documentation describes how to install and distribute front-end components of BW Modeling Tools on your local drive. It also includes sections explaining how to prepare the relevant BW back-end systems to work with BW Modeling Tools.

This version of the installation guide applies to the following back-end system versions:

- SAP BW/4HANA 2.0 Support Package Stack 00 or a higher Support Package Stack
- SAP BW/4HANA 1.0 Support Package Stack 04 or a higher Support Package Stack
- SAP Business Planning and Consolidation, version for SAP BW/4HANA, 2021, on top of SAP BW/4HANA 2021
- SAP Business Warehouse 7.5 Support Package Stack 10 or a higher Support Package Stack
- SAP Business Warehouse 7.4 Support Package Stack 20 or a higher Support Package Stack

The availability of the BW Modeling Tools features is dependent on the BW back-end system version. The complete set of BW Modeling Tools features is only available when using the latest BW back-end system release.

The BW Modeling Tools client is downward compatible. This means that it can operate with an older BW back-end system version.

## 2 Disclaimer

Some components of this product are based on Java™. Any code change in these components may cause unpredictable and severe malfunctions and is therefore expressly prohibited, as is any decompilation of these components.

Any Java™ Source Code delivered with this product is only to be used by SAP's Support Services and may not be modified or altered in any way.

This program contains the following third party open source or other free download components that are not part of the SAP software and not subject to your SAP license and/or maintenance agreement. The third party licensees of these components may provide additional license rights, terms and conditions and/or require certain notices as described below.

If you have any questions or concerns please contact: [opensource@sap.com](mailto:opensource@sap.com)

Third Party Component	License
Eclipse Platform: <ul style="list-style-type: none"><li>• 2021-09 (4.21)</li><li>• 2021-06 (4.20)</li><li>• 2021-03 (4.19)</li></ul>	Eclipse Public License v 1.0
Apache POI, 3.9	Apache License 2.0

List of additional features required for running BW Modeling Tools

Feature	ID
Model comparison (EMF Compare)	org.eclipse.emf.compare.ide.ui.feature
EMF Model Query	org.eclipse.emf.query
Web Services Tools	org.eclipse.wst.ws_ui.feature

BW Modeling Tools requires manual installation of the above mentioned additional Eclipse features before the BW Modeling Tools package installation due to the following reasons:

1. **Customer Requirement:** Many developers at customer and partner organizations do not have internet access or an official SAP Support Portal (S-) User. Thus, SAP decided to provide an installation scenario for a person who usually has an S-User and internet access: that is, an administrator who is responsible for the development landscape in the customer or partner organization.
2. **One Central Reference Installation:** The additional manual steps are only required for one administrator who assembles a complete reference installation. SAP is responsible and will provide support and maintenance for the SAP features in this central reference installation.
3. **Several Decentralized Customer Installations:** The administrator can copy and extend the reference installation with more features and takes over the responsibility for this customer specific installation. The administrator will then provide this customer specific installation to many developers (without S-User or internet access). Thus the majority of developers in the SAP customer and partner community will not have to perform the mentioned manual installation steps of some additional Eclipse features.

4. **Innovation:** SAP is able to support the current Eclipse release with this product at an earlier point in time than in the past.
5. **Transparency:** SAP customers and partners know exactly for which features SAP is responsible and for which SAP will provide support and maintenance. With an automatic installation of the required additional features, this would not be transparent.

# 3 Preparation

The preparation prior to the installation of front end components includes all steps that you need to perform, in order to ensure that your work with BW Modeling Tools runs smoothly.

The preparation includes completing the following activities for each BW application server you want to work with:

1. Implementing corrections for ABAP development tools for Eclipse
2. Implementing corrections for BW Modeling Tools
3. Installation requirements
4. Establishing secure network communication
5. Configuring profile parameters for assertion tickets
6. Configuring BW Web services
7. Downloading required packages from SAP Marketplace

## 3.1 Implementing Corrections for AS ABAP 7.4 SP9

The BW Modeling Tools use framework features of the ABAP development tools for Eclipse.

Therefore, you must ensure that the minimum required support package is applied and the corresponding corrections are implemented. In general, AS ABAP of SAP NetWeaver 7.4 SP9 or higher is required as the server component.

For information on preparing the AS ABAP, consult the guide [Installing ABAP development tools for Eclipse](#) and see SAP Note [1856565](#).

### Note

For some features, like designing a query with the BW Modeling Tools, you need to install 7.4 SP16 or higher.

## 3.2 Implementing Corrections for BW Modeling Tools

Check for mandatory corrections that must be applied on the ABAP back end system.

Before you can start with the installation of the BW Modeling Tools, check SAP note [1905207](#) for mandatory corrections, which must be applied on the AS ABAP. Furthermore, there you can find general maintenance hints regarding the BW Modeling Tools (SAP Component BW-MT).

## 3.3 Installation Requirements

To install the BW Modeling Tools, you need to have one of the following components installed.

- One of the following **operating systems** (OS) has to be installed on your local PC:
  - MS Windows 10 or higher
  - Apple Mac OS X 10.15 or higher
- Java Runtime:
  - JRE version 11 (64-Bit, LTS) or higher

### Note

By using SAP HANA Studio a suitable Java runtime is already included.

- ABAP development tools for Eclipse for Eclipse:
  - 3.30.2 or higher
- Microsoft Runtime C++ Runtime:
  - Visual Studio 2013 (Visual C++ 12.0)
- SAP GUI

### Note

SAP GUI is not relevant in the context of SAP BW bridge environment

- For Windows 7.60 or higher
- For Mac OS SAP GUI for Java 7.60 or higher
- Browser:
  - Chromium-based Browser / Firefox / Safari / Microsoft Edge
  - General support for UI5-based applications are mentioned in [1716423](#)
- To install, you have the following two options:
  - **working on SAP HANA Studio:** For this use case, you need to have the appropriate SAP HANA Studio (64 bit for Windows) installed.  
Due to dependencies on Eclipse 4.24 (alias 2022-06 edition), it is necessary to use version SAP HANA Studio 2.3.70 or higher. You can find installation details in the corresponding SAP HANA Studio installation guide.
  - **working on Eclipse:** For this use case, you need to have the appropriate Eclipse Package installed. It's required to install Eclipse 4.24 (alias 2022-06 edition) or higher.

If you have a Microsoft Windows platform, we do **not** recommend installing the SAP HANA Studio or the Eclipse Package into a Windows standard folder like the Windows "Program Files" folder. Due to permission restrictions, we cannot ensure that the tools will work with all features.

If you want to run the BW Modeling Tools in a multi-user environment like the Windows Terminal Services, please consult the Eclipse online help for details regarding the corresponding configuration. Search for "Eclipse Multi User Installs" on <http://help.eclipse.org> help.eclipse.org.

## 3.4 Establishing Secure Network Communication

In BW Modeling Tools, model developers always work with BW projects to access repository objects from back-end systems.

### Context

A BW project represents a real system connection on the front-end client and therefore requires an authorized user to access the back-end system. With the standard authentication method, the user enters his or her user ID and password on the front-end client to log on to the back-end system. For security reasons however, you must ensure that Secure Network Communication (SNC) is enabled for the selected system connection.

#### → Tip

For the sake of convenience and for increased security, also use the single sign-on (SSO) option for system authentication (if available in your system landscape). Compared with SNC, SSO provides extra security when working with BW projects. Using SSO, the user does not need to enter a user ID and password, but can access the specific system directly once the system has checked the validity of the logon ticket.

Note that the setup of SSO represents a general configuration step. This is identical for the ABAP development tools for Eclipse. If the environment has already been prepared for SSO in the context of the ABAP development tools for Eclipse, no further configurations are therefore required.

#### Establishing Secure Network Communication

Task	Procedure
Enable SNC for an BW system.	<ol style="list-style-type: none"><li>1. Add the relevant BW system to the SAP Logon Pad (if not already done).</li><li>2. In the SAP Logon Pad, open the Properties page for the BW system.</li><li>3. Enable Secure Network Communication for the selected system (if not already done).</li></ol>
Enable SSO for an BW system.	<ol style="list-style-type: none"><li>1. Install the SAP NetWeaver Single Sign-On 1.0 SP03 or higher (either "Secure LoginClient" or "Enterprise Single Sign-On") for the corresponding platform (either for 32- or 64-Bit).</li><li>2. Configure Secure Network Communication between the ABAP development tools for Eclipse client and the ABAP back-end system.</li></ol>



## 3.5 Configuring Profile Parameters for Assertion

In addition to logon tickets, AS ABAP systems can also issue more restricted assertion tickets when accessing system services.

### Context

Assertion tickets can help to provide increased security when using the integrated SAP GUI in BW Development Tools. Instead of prompting for the password, the back-end system checks the validity of the assertion ticket before allowing the user access to system services.

### Procedure

Use the following settings to configure your AS ABAP system in such a way that it issues assertion tickets only (without logon):

Profile Parameters for Assertion

Parameter	Value	Description
login/create_sso2_ticket	3	The parameter with this value causes the ABAP system to issue assertion tickets.
login/accept_sso2_ticket	1	The parameter with this value configures the ABAP system to accept assertion tickets.

## 3.6 Configuring the BW Web Service

In order for users to be able to use the data preview feature in the BW Modeling Tools on a SAP NetWeaver stack, the BW Web Services must be active and accessible by HTTPS.

### Note

For information about how to configure this service, read the SAP NetWeaver installation guide. For further details, see SAP Note [517484](#) (Business Information Warehouse section).

For usage of the data preview in the BW Modeling Tools on a SAP NetWeaver stack it is required to activate the following service in the SICF transaction: `/default_host/sap/bc/webdynpro/sap/fpm_bics_ovp`.

## 3.7 Assigning Roles and User Authorizations

The assignment of authorizations to back end system users is based on roles that are predefined in the SAP BW system. As a system administrator, you assign one or more roles to back end system users. From a technical viewpoint, these roles are based on authorization objects.

The following configuration steps include some of the same authorization objects mentioned in the installation guide of the ABAP development tools for Eclipse. Some of the authorization objects might therefore already be configured.

### Standard Role SAP\_BC\_DWB\_WBDISPLAY

The following role is required to use the BW Modeling Tools. If role SAP\_BC\_DWB\_ABAPDEVELOPER is already assigned to a user, it includes the required authorization, which means the following role does not need to be assigned.

Standard Role

Role	Description
SAP_BC_DWB_WBDISPLAY	Role that contains all authorizations to display and browse ABAP development objects.

**Note**

The users are not allowed to modify ABAP development objects.

## Authorization object S\_RFC

The BW Modeling Tools requires remote access to the following function modules that are specified for authorization object S\_RFC:

Authorization object S\_RFC

Activity [ACTVT]	RFC Object Name [RFC_NAME]	RFC Type [RFC_TYPE]
16 (Execute)	DDIF_FIELDINFO_GET	FUNC (Function Module)
	RFCPING	
	RFC_GET_FUNCTION_INTERFACE	
	SADT_REST_RFC_ENDPOINT	
	SUSR_USER_CHANGE_PASSWORD_RFC	
	SYSTEM_RESET_RFC_SERVER	

## Authorization object S\_TCODE

The BW Modeling Tools have to start specific transactions in order to enable SAP GUI integration in Eclipse. This means that the tools require access to the following transaction codes specified in authorization object s\_TCODE:

- SADT\_START\_TCODE
- SADT\_START\_WB\_URI

## Authorization object S\_ADT\_RES

The BW Modeling Tools use the following URI prefix for authorization object S\_ADT\_RES:

Authorization object S\_ADT\_RES

Field name	Value
URI	/sap/bw/modeling/*

### Note

The wildcard "\*" is used for the subpaths of the URI.

## New BW authorization objects in 7.4 SP5

In order for users to use the BW Modeling Tools editors, the following authorization objects must be configured:

- S\_RS\_HCPR: for creating and maintaining CompositeProviders.
- S\_RS\_ODSV: for creating and maintaining Open ODS views.

## New BW authorization object in 7.4 SP8

In order for users to use the BW Modeling Tools editors, the following authorization object must be configured:

- S\_RS\_ADSO: for creating and maintaining advanced DSOs.

## 3.8 Downloading Required Packages from SAP Service Marketplace

Download the packages for the *ABAP development tools for Eclipse for SAP NetWeaver* and for the *Modeling Tools for SAP BW powered by SAP HANA* from the SAP Service Marketplace (SAP SMP).


### Prerequisites

Before you can download packages from the SAP SMP you need an **S User**. In general it is not necessary for each BW model developer to have an S User account. The packages will normally be downloaded by one person and then shared with the corresponding BW model developers.

### Context

The ABAP development tools for Eclipse represents a mandatory component for the BW Modeling Tools due to the consumption of the communication framework.

#### Note

Check SAP note [1944835](#)  for information about suitable versions.

The first step is to download the required components from the SAP Service Marketplace.

## Procedure

1. Launch the SAP Software Download Center on the SAP Service Marketplace (<http://service.sap.com/swdc>).
2. Search for the *SAP ABAP in Eclipse* installation package and add it to the download basket.
3. Search for the *SAP BW Modeling Tools* installation package and add it to the download basket.
4. Download the corresponding archive files (zip) and unpack them to a local directory of your choice. In this guide, the following directories will be used:
  - ABAP development tools for Eclipse: `c:\MyDownloads\ABAP_Dev_Tools`
  - BW Modeling Tools: `c:\MyDownloads\BW_Modeling_Tools`

### Note

The folder structure for these is identical to typical Eclipse update sites which can be accessed via HTTP.

# 4 Installation

The following installation procedure comprises all front-end components that are required in order to run the BW Modeling Environment on your local drive.

The description of the installation and update procedures is geared particularly toward you as a system administrator on the SAP customer side and provides you with a central reference installation. After this, SAP provides a number of recommendations, so that you can make the installation of the BW Modeling Tools available to all the BW model developers within your organization.

## Related Information

[Installing BW Modeling Tools \[page 22\]](#)

[Updating BW Modeling Tools \[page 26\]](#)

[Recommendations for the System Administrator \[page 27\]](#)

## 4.1 Installing ABAP development tools for Eclipse

### Prerequisites

For more information see [Installing ABAP development tools for Eclipse](#).

### 4.1.1 Prerequisites

#### Operating System

The following operating system (OS) is installed on your local PC:

- **Windows** 10 or higher
- **Apple Mac** OS X 10.15 or higher

#### Java Runtime Environment (JRE)

Java Runtime Environment (JRE) 11 64-Bit is installed on your local drive.

If this is not the case, install the version 11 (with Long Term Support) of the SAP Java Virtual Machine from the SapMachine Website <https://sap.github.io/SapMachine/> .

#### Note

The Java Development Kit (JDK) is also convenient because it includes JRE.

## Eclipse

You have already installed a suitable Eclipse installation package Eclipse 4.24 (alias 2022-06 edition) or higher.

#### Note

Technically any Eclipse package with feature `org.eclipse.platform` of the corresponding release is installed, as a minimum, on your local drive.

### SAP Software and SMP Access

- For Windows OS, SAP GUI for Windows 7.60, is installed on your local drive. For Apple Mac OS X, SAP GUI for Java 7.60, is installed on your local drive.

#### Note

If this is not the case, install the SAP GUI first from the SAP Software Download Center on the SAP Service Marketplace.

You will need this SAP GUI for integration of GUI-based tools in the new ABAP IDE.

- You have an **S User** that enables you to download the ABAP development tools for Eclipse package from the SAP Service Marketplace (SMP).

## Internet Browser

On your local drive, one of the following browsers is installed:


- Chromium-based Browser / Firefox / Safari / Microsoft Edge

## Microsoft Components

**Microsoft Runtime VS2013 (Visual C++ 12.00 x64)** (for Windows OS) is installed on your local drive. You need this component for communication with the back end system.

#### Note

- If you are using a 64 bit version of Eclipse, you need to install this runtime component separately from the Microsoft installation page.

- If you start ADT before you have installed the DLLs, an error dialog might be opened stating that the ABAP communication layer is configured incorrectly. In this case, you need to restart Eclipse once with the "-clean" option. Afterwards, remove the "-clean" option again. For further information, see [The Eclipse runtime options](#) 

## 4.1.2 Context

The ABAP development tools for Eclipse are installed from the SAP Software Download Center on the SAP Service Marketplace. From here, you download the archive file with the corresponding IDE components onto your local drive.

### 4.1.2.1 Use Cases


Subsequent installation of the SAP components requires you to already have a suitable Eclipse installation operating on your computer.

Which Eclipse version is suitable depends among other things on the use cases that you implement the Eclipse platform or Eclipse IDE for. To use in a combination with BW Modeling Tools, you have the following two options:

- **ABAP development on SAP HANA:**  
For this use case, you need to have SAP HANA Studio 2.0 (revision 112 or higher) installed on your local drive.  
This is the recommended approach. It will be described in detail in the following steps.
- **Side-by-side Java and ABAP development:** For this use case, you usually need to have an Eclipse edition running as your development environment. You can add ABAP development tools for Eclipse to your existing Eclipse installation.

## 4.1.3 Installation Steps

### Procedure

1. Download the ABAP development tools for Eclipse package from the SAP Service Marketplace (<http://support.sap.com/swdc> - a. Launch the **SAP Software Download Center**
- b. In the *Support Packages and Patches* section, open the **Search for Support Packages and Patches** subsection.
- c. In the **Search Term** input field, enter **ABAP in ECLIPSE** for the name of the installation package.

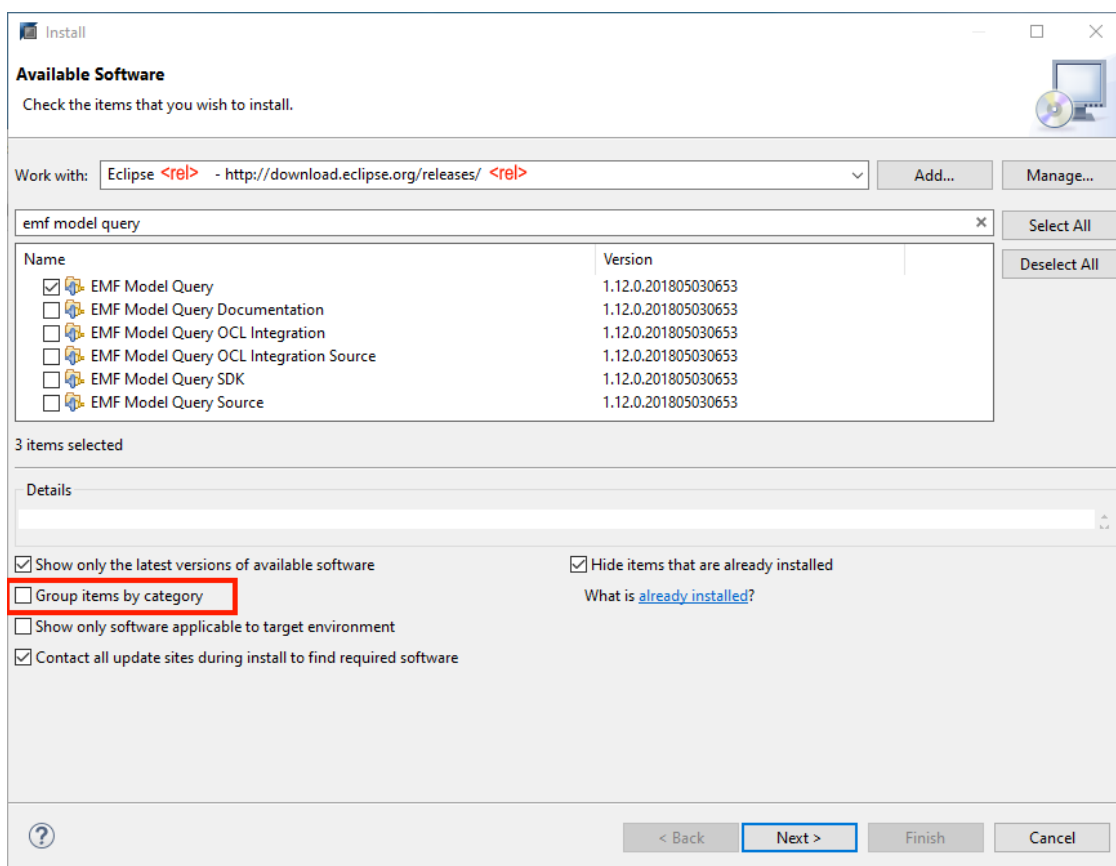
#### Note

In the *Search Method* list box, select the **Phrase** item in order to run the search faster.

In the web page that now appears, select the latest 3.x release.



- d. In the *Search Results* view, choose package **SAP ABAP IN ECLIPSE 3 SP30** or newer
  - e. Add the package to the download basket.
  - f. Download the archive zip file to the local directory of your choice.
2. Install additional Eclipse features that are required for running ABAP development tools for Eclipse:
- a. Launch the Eclipse platform or SAP HANA Studio (see prerequisites above) that is installed on your local drive on the SAP Service Marketplace.
  - b. Choose **Help > Install New Software...** to start the installation wizard.
  - c. In the *Work with* field on the SAP Service field in the wizard, specify the update site that you downloaded the Eclipse installation package from.
  - d. To simplify the selection, uncheck the *Group items by category* field on the wizard page.



**Example for installation based Eclipse 4.19 (2021-03) / HANA Studio 2.3.60**

- e. Select the following Eclipse features from the table below – depending on whether or not you are going to install ABAP development tools for Eclipse on top of SAP HANA Studio.

**Note**

- 1) This Eclipse feature is already part of the "Eclipse IDE for Java Developers" installation package.
- 2) You only need this Eclipse feature if you intend to install the "ABAP Connectivity and Integration Development Tools".

If installing to a SAP HANA Studio:

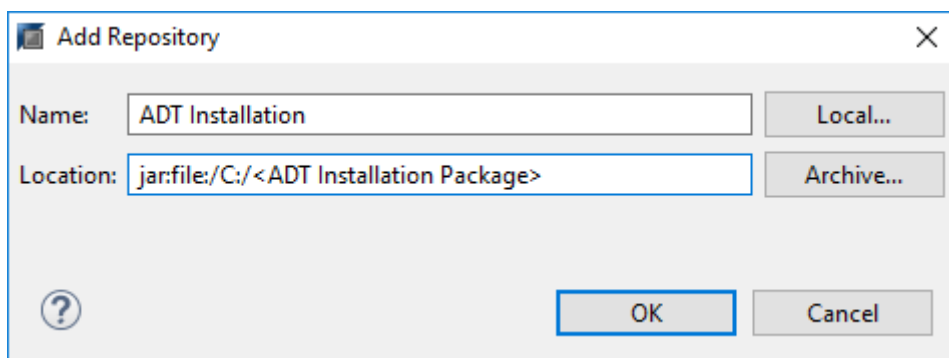
List of additional Eclipse features required for installation

Feature Name	Feature ID
Model Comparison (EMF Compare)	org.eclipse.emf.compare.ide.ui.feature
EMF Model Query	org.eclipse.emf.query
Web Services Tools	org.eclipse.wst.ws_ui.feature

- f. Once you have finished making your selections, make sure that the filter box is empty and then choose **Next**.
  - g. On the next wizard page, review the list of features to be installed and choose **Next**.
  - h. Once you have accepted the terms of license agreement, initiate the installation of the selected features by pressing **Finish**.
  - i. To apply the changes, restart the Eclipse workbench using the corresponding button in the information dialog that appears.
3. Installing the ABAP development tools for Eclipse package:
- a. Launch the installation wizard again by choosing **Help > Install New Software...**
  - b. In the *Work with* field in the wizard, now specify the target directory where you downloaded the package using ABAP development tools for Eclipse.

→ Tip

To add the new installation directory, click the **Add... > Archive...** button to specify the location, and enter a name for your local software site. As highlighted in the screenshot below, make sure that the location path starts with "jar:file:".

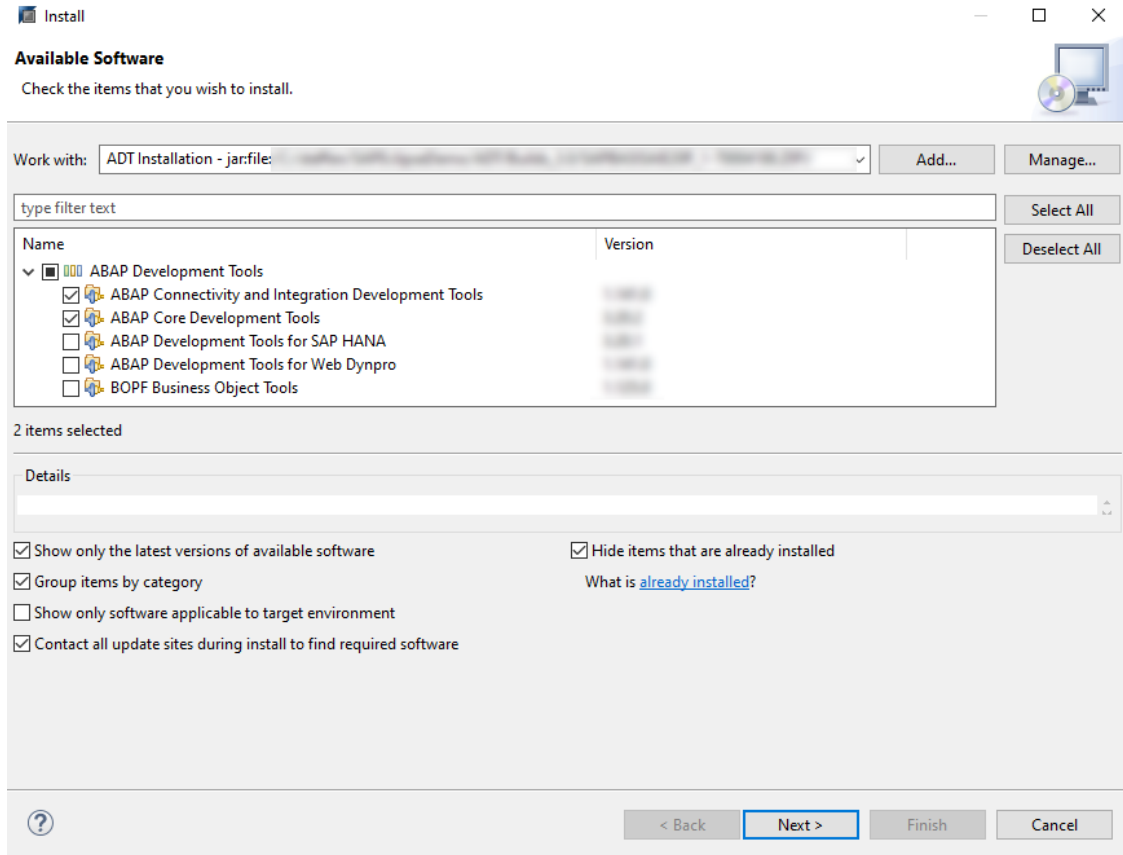


A software site that is located in the local file directory is specified by: jar:file:/<drive>:/<directory\_with\_zipped\_content>

- c. To simplify the selection, check the *Group items by category* field on the *Wizard* page.
- d. Select all **ABAP development tools for Eclipse for SAP NetWeaver** items and choose **Next**.

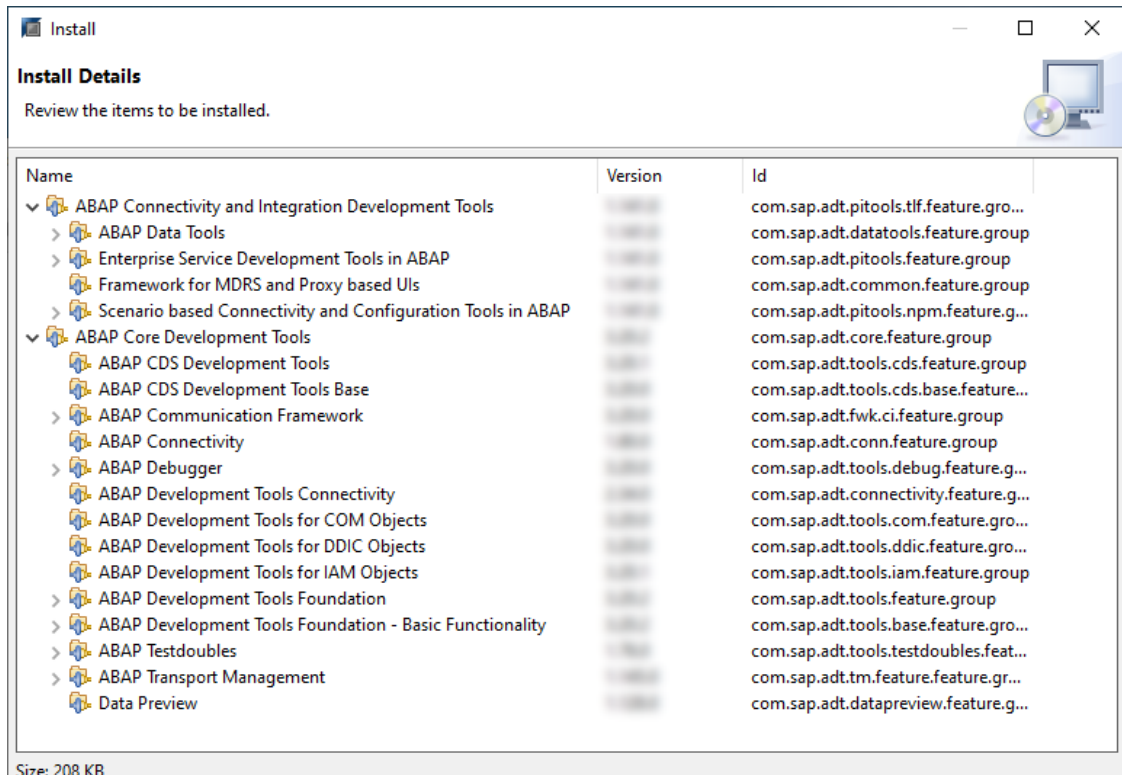
ⓘ Note

ABAP Core Development tool must always be installed, whereas installation of other tools is optional. Select optional tools according to your particular requirements.



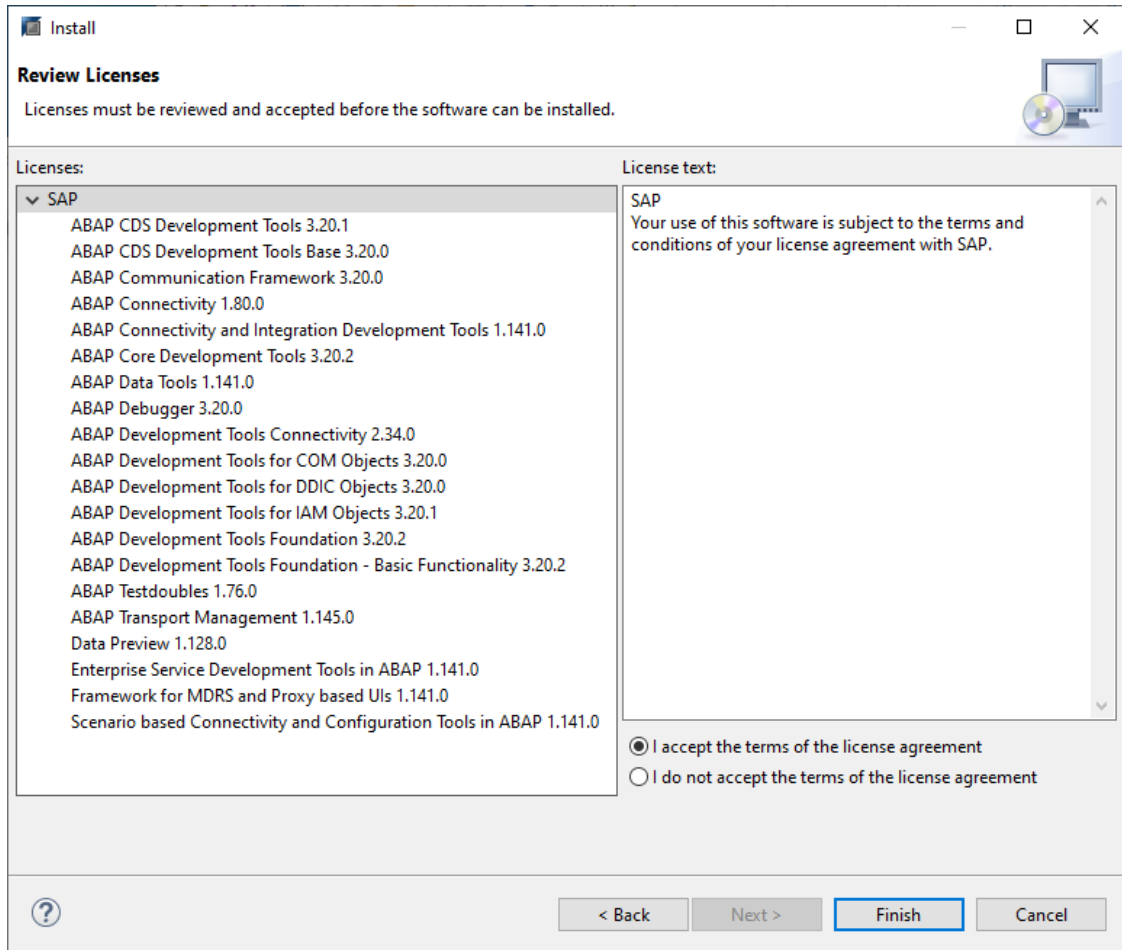
The target directory where you extracted the zip file in step 1 d) serves as the local software site for installation of ABAP development tools for Eclipse.

- e. On the next page, review the feature groups to be installed and choose **Next** again.



**List of SAP feature groups to be installed**

- f. While content is being fetched for installation, you will receive a warning that unsigned software content is being installed. Press **OK** to continue with the wizard.
- g. Once you have accepted the terms of the license agreement, initiate the installation of the selected SAP feature groups by pressing **Finish**.
- h. In the *Licenses and Certificates* dialog box, confirm the licenses and certificates.



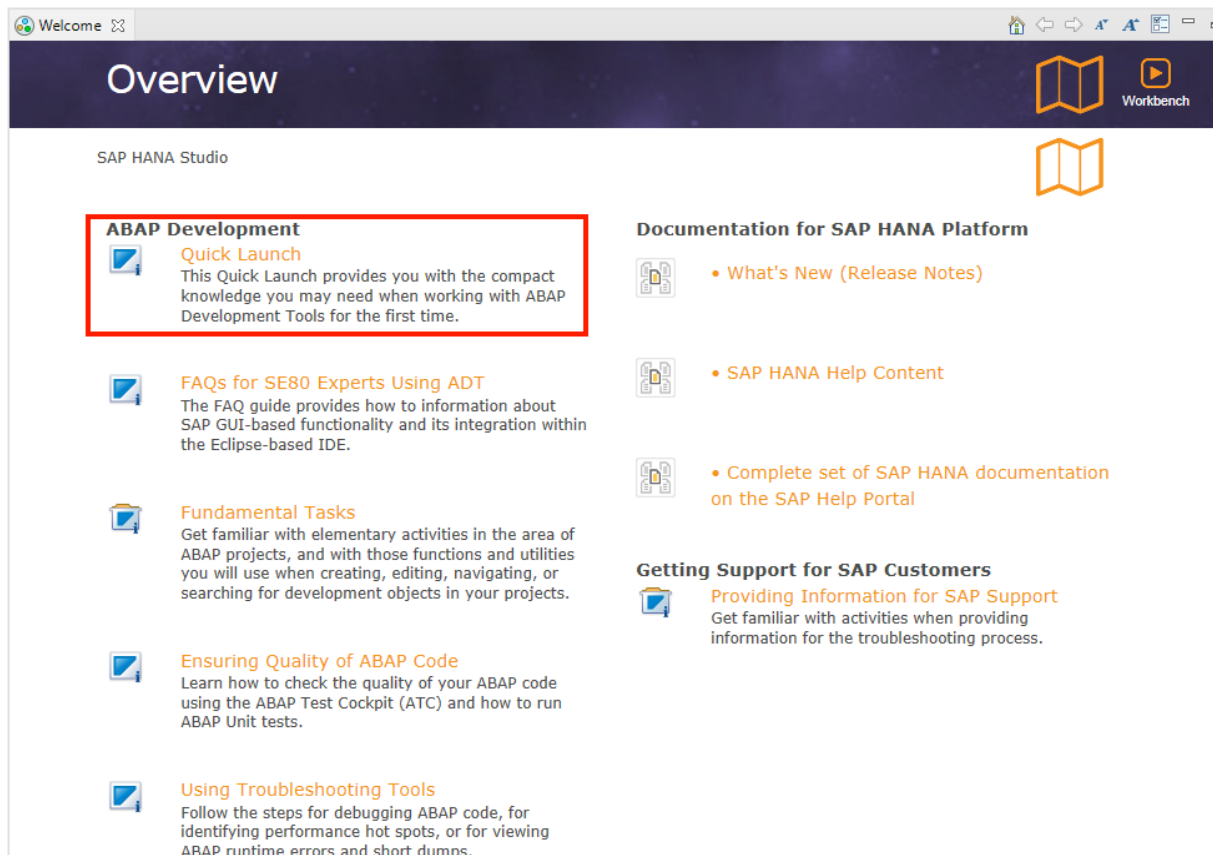
- i. To apply the changes made during the installation process, restart the Eclipse workbench.
4. 4. Items that you want to install:

Feature	ID
BPC Embedded Planning	com.sap.bw.feature.bpcplanning.feature.group
BW Cloud Connectivity	com.sap.bw.feature.cloud.feature.group
BW Modeling Tools Integration with SAP HANA Studio	com.sap.bw.feature.hana.feature.group
BW Modeling Workbench	com.sap.bw.feature.workbench.feature.group
BW Query Designer	com.sap.bw.feature.query.feature.group

## 4.1.4 Result

The successful installation procedure provides you (as a system administrator at SAP customer side) with a ready-to-use ABAP IDE. It contributes the ABAP perspective to the Eclipse workbench.

The *Welcome* page (► *Help* ► *Welcome* ►) provides central access to knowledge material and provides links to related **ABAP Development User Guide** topics.



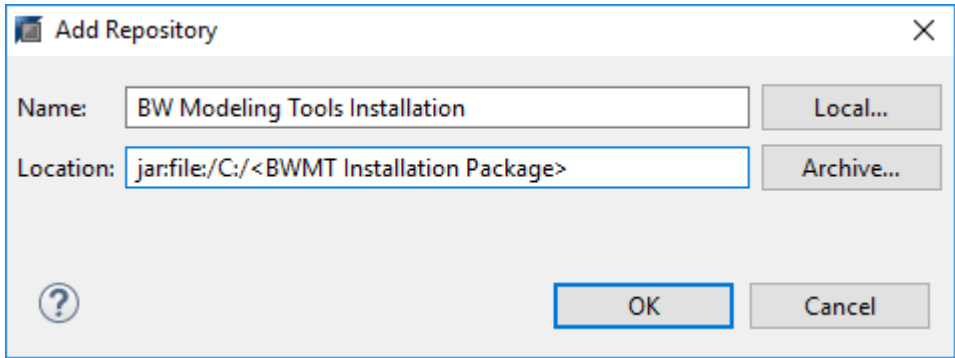
The Quick Launch on the Overview tab provides you with compact knowledge that you may need when working with the new ABAP IDE for the first time.

## 4.2 Installing BW Modeling Tools

The steps to install the BW Modeling Tools are identical to the steps for ABAP development tools for Eclipse. Only the installation (repository) folder used and the required features are different.

### Procedure

1. Choose ► *Help* ► *Install New Software...* ► to restart the installation wizard.
2. Select *Add...* and enter the location of the BW Modeling Tools setup files

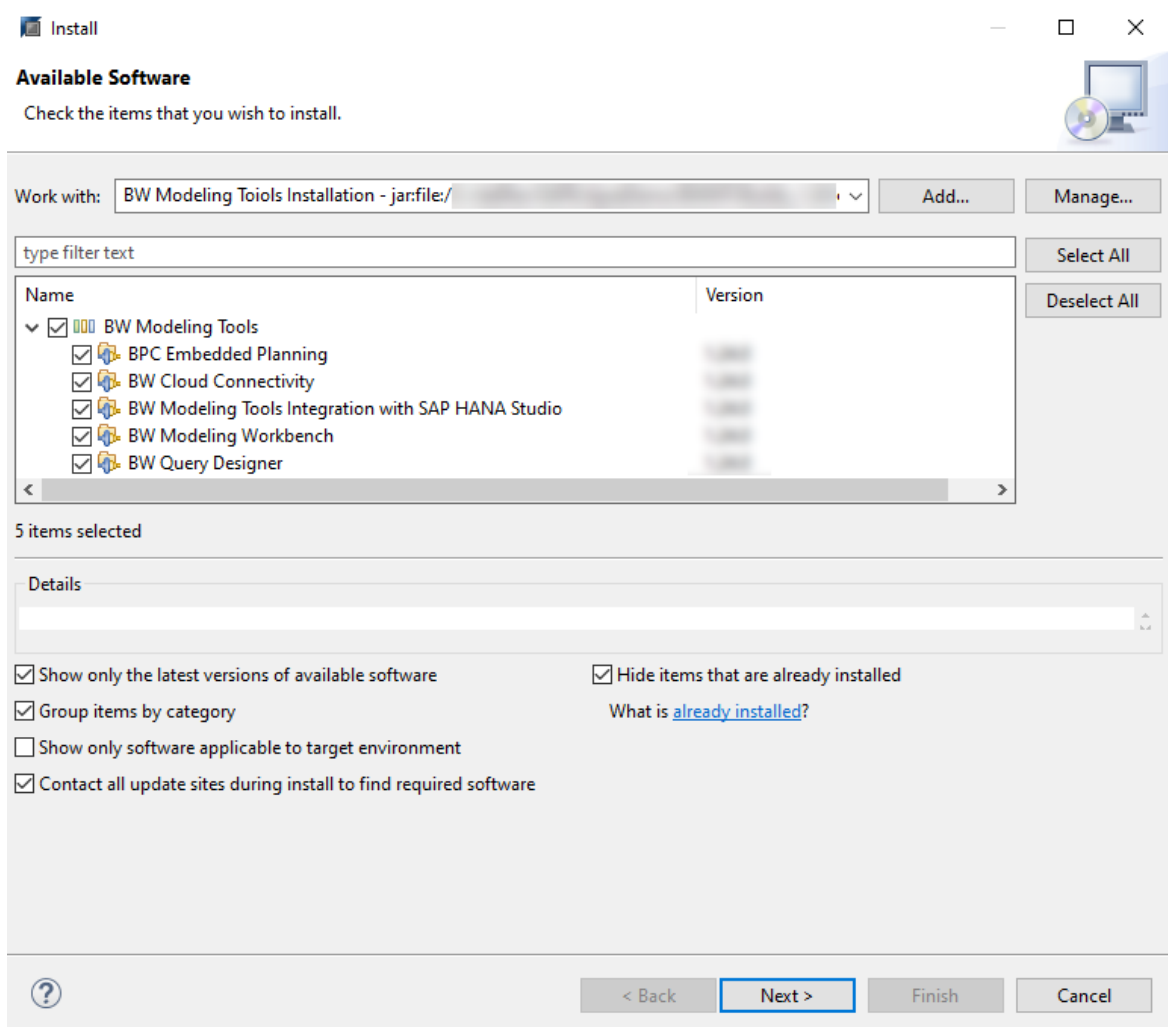


3. In the *Work with* field in the wizard, specify the update site that you downloaded the installation package from.
4. Select the suitable features from the installation package.

You can install both BW Workbench and BW Query Designer, or each feature group separately. If you like to only use the BW Query Designer, we recommend to install it on Eclipse. The following table shows the supported installation options in detail:

Installation options

Installation option	Integration	BW Workbench	BW Query Designer
Eclipse		x	
			x
		x	x
SAP HANA Studio	x	x	
	x		x
	x	x	x

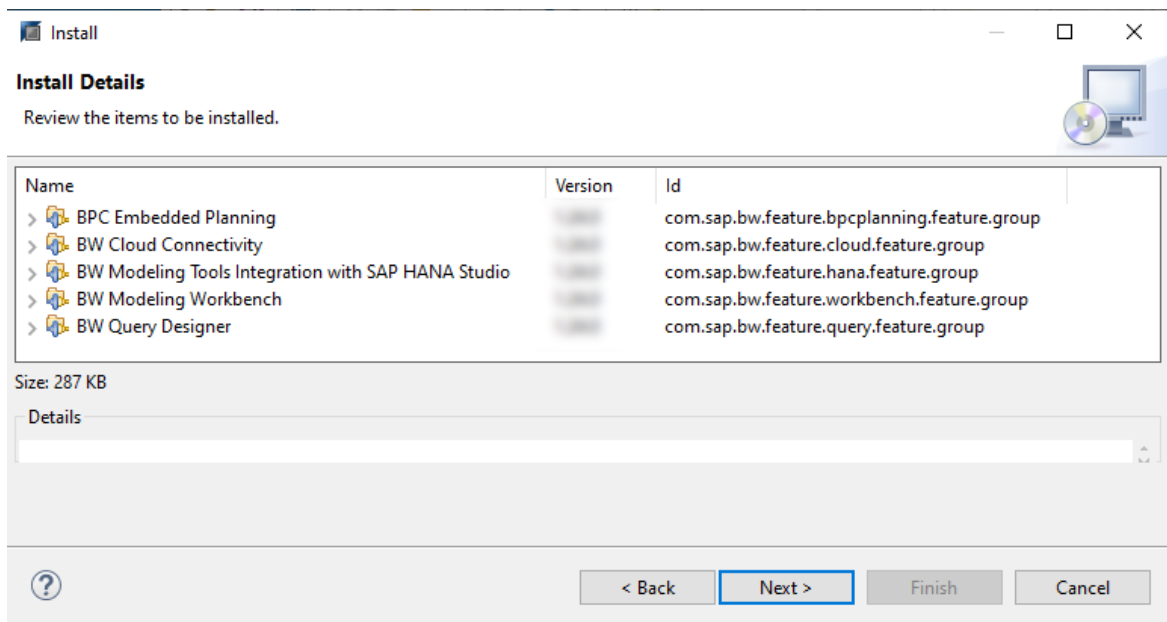


Items that you want to install

Name	ID
BPC Embedded Planning	com.sap.bw.feature.bpcplanning.group
BW Cloud Connectivity	com.sap.bw.feature.cloud.feature.group
BW Modeling Tools Integration with SAP HANA Studio	com.sap.bw.feature.hana.feature.group
BW Workbench	com.sap.bw.feature.workbench.feature.group
BW Query Designer	com.sap.bw.feature.query.feature.group

- When you have made all required entries, choose *Next*.
- On the next wizard page, review the list of features to be installed and choose *Next*.



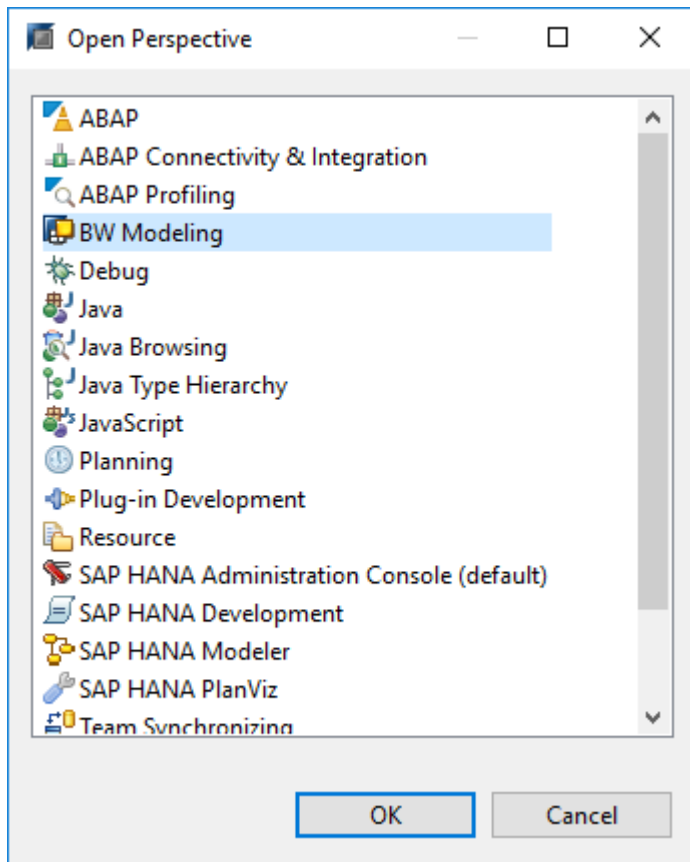


7. Once you have accepted the terms of license agreement, initiate the installation of the selected features by choosing *Finish*.
8. To apply the changes, restart the SAP HANA Studio by choosing the restart button in the information dialog box.

## Results

Once installation is complete, BW administrators are equipped with a ready-to-use BW modeling IDE. This adds the BW modeling perspective to the SAP HANA Studio.

Initially, you will probably see the SAP HANA Studio Welcome screen (|> *Help* > *Welcome* >). To enter the BW Modeling perspective, close the Welcome screen and choose |> *Window* > *Open Perspective* > *Other...* >. A dialog box appears. Choose *BW Modeling* and confirm by pressing the *OK* button.



You have now opened the perspective that allows you to create new BW projects.

## 4.3 Updating BW Modeling Tools

To install the BW Modeling Tools for the first time, or to update them, use the SAP Software Download Center on the SAP Service Marketplace.

### Context

If you want to update an existing version of BW Modeling Tools, open the SAP Software Download Center on the SAP Support Portal. (see <https://launchpad.support.sap.com/#%2Fsoftwarecenter>). Search for *BW Modeling Tools*. Here you will always find the most current version as an archive file with the corresponding IDE components.

#### Note

If you want to add new functionality like “BW Transformation”, you have to install these features by processing the installation steps from chapter Installing BW Modeling Tools.

### Note




Make sure that you always only install suitable versions of SAP HANA Studio, ABAP development tools for Eclipse and BW Modeling Tools. There is no guarantee that all possible combinations of releases on the SAP MarketPlace will work. Check SAP Note [1905207](#) for supported releases.

## Procedure

1. Download the new version of the BW Modeling Tools package from the SAP Support Portal to your local installation directory.

### Note

In case of the downloaded archive has the same name as the former archive, you can add the major and minor version to the name of the downloaded archive. So that you do not need to replace the former archive. This enables you to revert the update if it is required.

2. Configure the new archive as an update site like mentioned in the chapter Installing BW Modeling Tools.
3. Trigger the update by selecting  [Help](#)  [Check for Updates](#) .

## Related Information

[Installing BW Modeling Tools \[page 22\]](#)

## 4.4 Recommendations for the System Administrator

To make the installation of the BW Modeling Tools available in your organization to BW model developers, we recommend that you (the system administrator) perform the following steps:

- Make the downloaded ZIP file for the BW Modeling Tools package available on a file share. Each BW model developer performs steps 2 and 3 of the installation description on his or her local drive.
- Build a separate update site that contains the required Eclipse and the SAP feature groups. These updates are available to all BW model developers concerned – either through a Web server or a file share – for internal use. This option has the advantage that you can use the standard Eclipse update mechanism in full within your organization. Use the “Eclipse P2 Publisher” tool provided by Eclipse to build your combined update site.

# 5 Post-Installation

## 5.1 Configuring Eclipse Runtime Options

In order to avoid out-of-memory errors while running BW Modeling Tools, you have to make sure that there is sufficient memory on the heap.

### Context

To achieve this, you can make the Java Virtual Machine (VM) increase the total amount of memory. This is done by adding VM arguments to configure the JAVA VM used to run SAP HANA Studio. The following configuration recommendations should work for most installations.

#### Note

It is generally advisable to prepare one configuration and then distribute it to the corresponding BW modelers.

### Procedure

1. In the SAP HANA Studio installation folder, open the `hdbstudio.ini` file.
2. It's recommended to adjust the following two memory related parameters for Java VM after the `-vmargs` command line:

```
-Xms768m
```

```
-Xmx2048m
```

3. We also recommend adding the following Java VM start-up options too:
  - Set default encoding of Java VM
  - Set user language to EN
  - Set a heap dump if you encounter an out-of-memory error
  - Set the minimum Java version required to launch Eclipse

```
-Dfile.encoding=UTF-8
```

```
-Duser.language=EN
```

```
-XX:+HeapDumpOnOutOfMemoryError
```

# 6 Additional Information

The following sections provide important additional information.

## Related Information

[Getting Support Information \[page 33\]](#)

[Uninstalling BW Development Tools \[page 30\]](#)

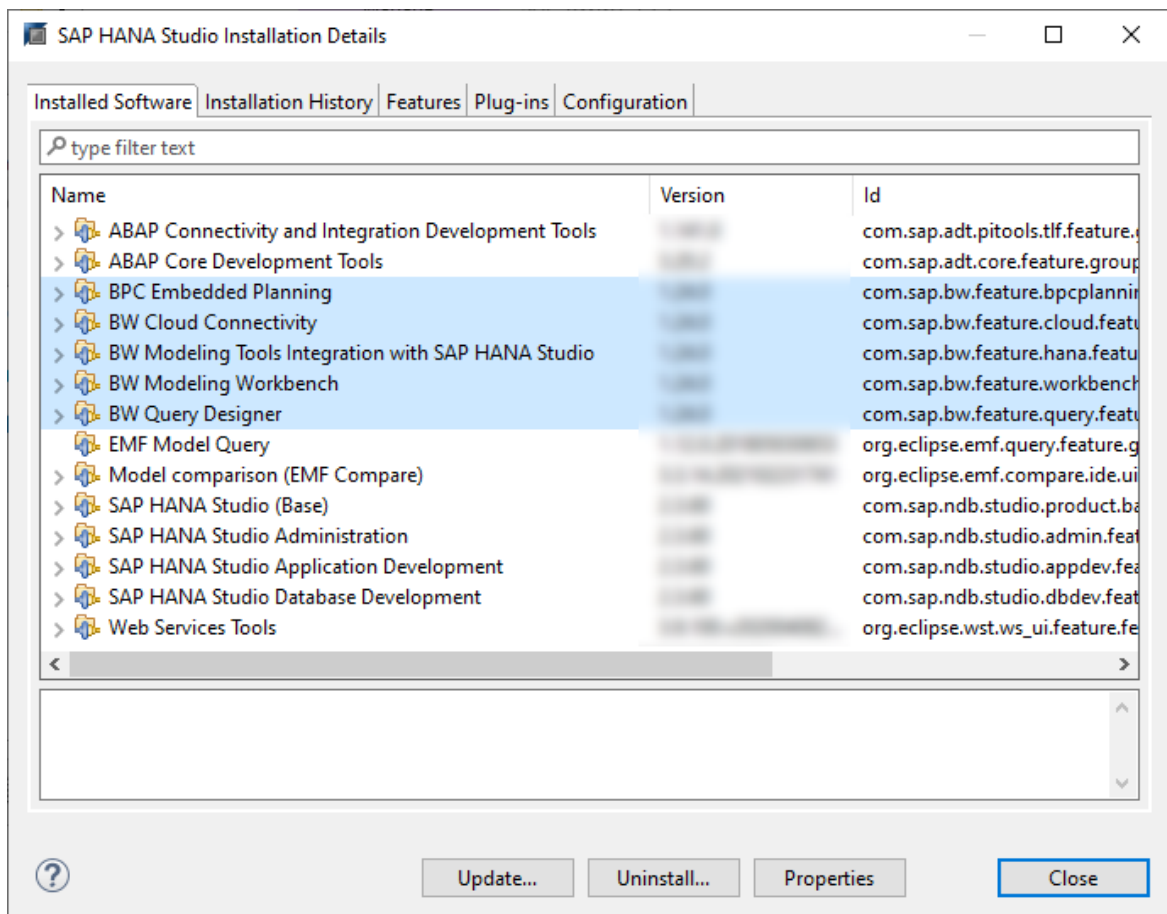
## 6.1 Uninstalling BW Development Tools

### Context

To uninstall all front-end components required to run BW Modeling Tools, proceed as follows:

### Procedure

1. Launch your BW Modeling Tools installation environment (if it is not already running).
2. Choose **► Help ► About... ◀**.
3. Press the *Installation Details* button.
4. Select the nodes of the BW features.



- Press the *Uninstall...* button.  
The *Uninstall Details* page displays a list of feature groups that will be uninstalled.
- To start uninstalling, choose *Finish*.

## 6.2 Updating BW Modeling Tools

### Context

If you want to update an existing version of BW Modeling Tools, open the SAP Software Download Center on the SAP Service Marketplace. Here, you will always find the most current version as an archive file with the corresponding IDE components.

#### Note

If you want to update the SAP HANA Studio installation, we always recommend uninstalling the BW Modeling Tools first. Due to the fact that there can be direct dependencies between the SAP HANA Studio revision used and the version of BW Modeling Tools, this step is strongly recommended. You should also

keep in mind that uninstalling components in Eclipse only removes the feature registration. The actual plug-in files will be retained, meaning that the SAP HANA Studio folder will become larger. We therefore recommend to always perform a new installation rather than to perform updates.

## Procedure

1. Download the new version of the BW Modeling Tools package from the SAP Service Marketplace to your local installation directory.
  - If the downloaded archive has the same name as the former archive, you can add the major and minor version to the name of the downloaded archive. You therefore do not need to replace the former archive. This enables you to revert the update if required.
2. Configure the new archive as an update site.
  - a. In the menu bar, choose **Windows > Preferences**.
  - b. In the Preferences window, choose **Install/Update > Available Software Sites**.
  - c. To add the new archive, choose **Add... > Archive...** in order to specify the location, and enter a name for your local software site: `jar:file:/<drive:>/<directory_with_zipped_content>`
3. Trigger the update by choosing **Help > Check for Updates**.

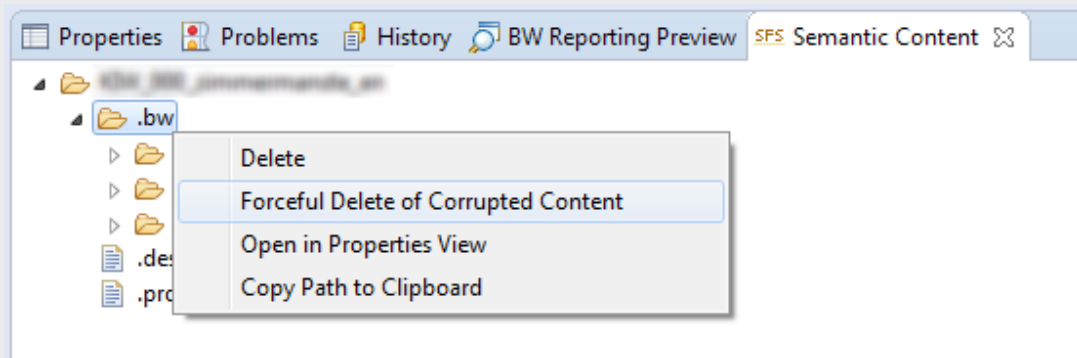
### Note

For compatibility reasons, the local cache (semantic file cache), which is assigned to a BW project, will be automatically deleted. If any editors are open that access BW models in the same project, these are closed automatically.

If you have problems, you can manually delete the local cache proceeding the following steps:

1. From the Workbench menu, choose **Window > Show View > Other**.
2. You are now in the **Show View** selection dialog. Enter **semantic** in the filter line. The preselection should now contain just one entry: "Semantic Content". Select this entry.
3. The system should now display the semantic content view with all available BW projects. Go to this view and expand the project tree under the relevant project. Choose the **.bw** folder and open the context menu.
4. In the context menu, choose **Forceful Delete of Corrupted Content** and choose **OK** to confirm the dialog box that appears.

The following image shows the context menu on a bw folder.





## Next Steps

Please bear in mind that it might also be necessary to update further components, such as ABAP development tools for Eclipse. For further details, see the corresponding release information note.

## 6.3 Getting Support Information

If errors occur in connection with BW Modeling Tools, SAP customers might need more detailed support from SAP.

### Context

If errors occur, it is very important that you, the SAP customer, provide all the required data, in order to speed up the troubleshooting process. To help you do this, BW Development Tools provides a convenient support tool. With a few simple mouse clicks, you can generate a support information file. This file contains all the relevant data for your IDE or GUI version, as well as information on preference settings and technical system environment data. You can then add this support file to your OSS problem message as an attachment.

To collect the support information, proceed as follows:

### Procedure



1. In your BW Modeling Tools environment, choose **Help** > **Collect Support Information...**.
2. A dialog box appears. Specify the location of the support file and choose **Finish**.

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