



# How to Integrate EWM with BW

**Applicable Releases:**

**SAP EWM 9.0**

**SAP NetWeaver 7.0 BI Content Add-On 7**

**Version 1.0**

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## Document History

Document Version	Description
1.0	First official release of this guide

## Typographic Conventions

Type Style	Description
<i>Example Text</i>	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Cross-references to other documentation
<b>Example text</b>	Emphasized words or phrases in body text, graphic titles, and table titles
Example text	File and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
<b>Example text</b>	User entry texts. These are words or characters that you enter in the system exactly as they appear in the documentation.
<Example text>	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
EXAMPLE TEXT	Keys on the keyboard, for example, F2 or ENTER.

## Icons

Icon	Description
	Caution
	Important
	Note
	Recommendation or Tip
	Example

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## 1. Business Scenario

You want to setup the BI Content for SAP Extended Warehouse Management (EWM) in order to use queries or Web templates to visualize and analyze EWM data.

## 2. Background Information

This document explains the setup of a connection between EWM and SAP NetWeaver BW (BW) based on the SAP NetWeaver 7.31 documentation [Data Warehousing: Step by Step](#). Additional information specific to SAP EWM, such as a list of objects for processing, has been added to the steps as appropriate.

**Disclaimer:** There may be differences between the standard SAP product documentation and this guide.

## 3. Prerequisites

You have installed and correctly configured the following systems:

- SAP EWM 9.0
- SAP NetWeaver 7.0 BI Content Add-On 7

You have configured the basic settings for your EWM system according to the Integration Guide for EWM with ERP, in particular, the definition of a logical system and the assignment of the logical system to the client.

## 4. Configure the EWM and BW System

### 4.1 Settings in the EWM System

You use this process to define configuration settings in the EWM system to integrate EWM with BW.

#### 4.1.1 Check System Settings

Check that your EWM system has been set up correctly. From the initial setup of the EWM system, the logical system for the EWM system is expected to be defined and assigned to the client.

##### For Further Information

[Configurations in the SAP Source System \(SAP Documentation\)](#)

#### 4.1.2 Define Logical System for BW System

Use this procedure to name the logical system that is used in the remote function call (RFC) from and to BW.

##### Procedure

1. In Customizing for EWM, choose *SCM Basis -> Integration -> Basic Settings for Creating the System Landscape -> Name Logical Systems*.  
This is a cross client-activity.
2. Define the logical systems for the BW client, for example, define **BIWCLNT003**.

For more information, see the IMG activity documentation.

#### 4.1.3 Create RFC User in EWM

##### Recommendation

It is an optional step to create the RFC destination manually in EWM. You can also create the setting as described in section 4.3.

#### 4.1.4 Define RFC Destination in EWM

##### Recommendation

It is an optional step to create the RFC destination manually in EWM. You can also create the setting as described in section 4.3.

#### 4.1.5 Settings for the System Change Option

As a rule, system changes are not permitted in production systems. Connecting a system as a source system to a BW system or connecting a BW system to a new source system will, however, mean changes as far as the system change option is concerned. Configure the following settings in the EWM system to ensure that the subsequent changes are valid in the relevant clients of the systems when connecting the source system.

##### Procedure

Change the settings as described in [Configurations in the SAP Source System, Settings for the System Change Option \(SAP Documentation\)](#)

#### 4.1.6 Determine the Server Name

When you connect a source system to a BW system, you specify the server name that should be used for the source system connection. You will need this information for section 4.3.



### Procedure

To obtain the server name, open the *SAP Easy Access Menu* in the EWM system and choose *Tools -> Administration -> Monitor -> System Monitoring -> Servers*. The server name is displayed as follows: `<server>_<SAPSID>_<instance no.>`, for example, `pswd090_EWM_90`.

## 4.2 Settings in the BW System

You can use this process to define configuration settings in the BW system that is needed for the integration with EWM. By connecting the two systems you can transfer data that is relevant for reporting from the EWM system into the BW system.

### 4.2.1 Define Logical Systems

Use this procedure to name the logical system that is used in the remote function call (RFC) from and to EWM.



If you have already created a logical system for your BW system, continue to use the existing system. Do not change the setting.

### Procedure

1. In Customizing for the BW system, choose *SAP NetWeaver -> Business Intelligence -> Links to Other Source Systems -> General Connection Settings-> Define Logical System*.  
This is a cross client-activity.
2. Define the logical systems for the BW and the EWM client, for example, define **BIWCLNT003** and **EWMLNT001**.

For more information, see the IMG activity documentation.

### 4.2.2 Assign Logical System to Client

You can use this procedure to assign a logical system to the client in the BW system.



If you have already created this setting before, for example, when you connected another system to BW, do not change the setting.

### Procedure

1. In Customizing for the BW system, choose *SAP NetWeaver -> Business Intelligence -> Links to Other Source Systems -> General Connection Settings-> Assign Logical System to Client*.  
This is a cross-client activity.
2. Enter the logical system for your client. For example, enter **BIWCLNT003** for client **003**.

For more information, see the IMG activity documentation.

### 4.2.3 Background Users in BW

The background user in BW is used for communication with the source systems, for the extraction of data and for background processes in BW.



If you connect EWM to a BW system that is already used for BW integration to other systems, the settings will already be available.

### Procedure

1. In Customizing for the BW system, choose *SAP NetWeaver -> Business Intelligence -> Automated Processes -> Create User for Background Processes*.

2. Enter a user name, for example, **ALEREMOTE**.
3. Assign the profile **S\_BI-WHM\_RFC** to the user.  
For a detailed list of all required authorizations, see SAP Note 150315 on the SAP Service Marketplace.
4. To use the background user as default user when you create a source system, enter the user in the *Data Warehousing Workbench* (RSA1) under *Settings -> Global Settings* in the field *BW User for ALE*.  
Enter the user you have created above.

#### 4.2.4 Proposal for Background Users in EWM

The background user in the source system is used for communication with BW and for the extraction of data.

The name that you enter here is displayed by default as the background user in the dialog box for creating the source system. The system uses this name to generate the user (if it does not already exist) when you create the source system.

##### Recommendation

If a suitable user with the profile **S\_BI-WX\_RFC** exists in the source system, enter this user here.

##### Procedure

1. In Customizing for the BW system, choose *SAP NetWeaver -> Business Intelligence -> Links to Other Source Systems -> Connection Between SAP Systems and BI System -> Maintain proposal for users in the source system (ALE communication)*.
2. Enter a proposal for the user name, for example, **ALEREMOTE**.

##### Tip

According to your requirements, it might be necessary to create different background users for different system integration scenarios, for example, **ALEREM\_ERP** and **ALEREM\_BW**.

#### 4.2.5 Settings for the System Change Option

##### Use

As a rule, system changes are not permitted in production systems. Connecting a system as a source system to a BW system or connecting a BW system to a new source system will, however, mean changes as far as the system change option is concerned. Configure the following settings in the BW system to ensure that the subsequent changes are valid in the relevant clients of the systems when connecting the source system.

##### Note

If you connect EWM to a BW system that is already used for integration to other systems, the settings will already be available.

##### Procedure

Change the settings as described in the [Configurations in BW, Settings for the System Change Option \(SAP Documentation\)](#)

### 4.3 Create SAP Source System for EWM in BW

All systems that provide BW with data are referred to as a source system. There are several options for source system types. An EWM system is of source system type *SAP Source System* (with service API).

## Prerequisites

You have defined the necessary configuration in BW and in EWM (see sections 4.1 and 4.2)

## Procedure

1. To create a source system of type *SAP Source System* in BW, start the *Data Warehousing Workbench (RSA1)* and choose *Modeling -> Source System*.
2. Go to In the *Source Systems* sub-section, choose *Create* in the context menu of the *SAP* folder.
3. Enter the required data for the RFC destination. There are two options:
  - a. The destination for the SAP source system already exists.  
Select the destination.



The destination name has to correspond to the logical name of the source system that you created in Customizing of the source system (see section 4.1.1).

- b. The destination does not exist.
  - i. Enter the server name information from the source system (see section 4.1.6).



Target computer (server): **pswd090**

System ID (system name): **EWM**

System number: **90**

Enter a password for the background user in the source system and confirm this in the next input row. If the user already exists in the source system, enter the valid password.

4. In the *Connection of source system to BW* section enter the password that you defined for the BW background user in section 4.2.3 and confirm.
5. Confirm your entries.
6. In the remote login screen of the source system, select the relevant client and logon as a system administrator.



To create users and RFC destinations, you will need the required authorization. Otherwise, ask your system administrator to create the following settings for you in transactions **ST01** and **SM59**.

If no RFC destination exists with the logical name (of the BW system) that you created in Customizing of the BW system in the step *Define Logical System*, the system creates the RFC destination for BW automatically in the source system.

In addition, the background user is automatically created if it does not exist in the source system. Profiles (*S\_BI-WX\_RFC*) are also automatically assigned to the user. If the user already exists in the source system, check the accuracy of the profile.

If no RFC destination exists in BW for the source system, the destination is automatically created with the information read from the source system.

When the system creates the source system, it creates the following settings automatically:

- The settings which are needed for the communication between BW and EWM as source system (in BW and in EWM).
- The ALE settings which are needed for the communication between a BW system and an SAP source system (in BW and in EWM).
- BW settings for the new link (in BW).

The system also performs a connection test for both systems.

When you activate the source system, you can specify whether the metadata of the source system should be replicated (see section 5.1.1).

## 4.4 Transfer Global Settings

With this function you are able to transfer various types of table content from the connected SAP source systems. The content of those tables are currencies, units of measure, fiscal year variants and factory calendars.



In EWM you should either use units of measure and currencies that you replicate from your ERP system or manually maintain identical settings. If you have already transferred the data from your ERP system to the BW system you do not need to transfer the settings again.

### Prerequisites

The relevant tables have already been maintained in the SAP source system.

### Procedure

1. In BW, start the *Data Warehousing Workbench (RSA1)*. In the tree navigate to *Modeling -> Source System*
2. Go to sub-section *Source Systems*, choose *Transfer Global Settings* in the context menu of your source system.
3. The *Transfer Global Settings: Selection* screen appears. Under *Transfer Global Table Contents*, select the settings that you want to transfer. For EWM you need:
  - Units of Measure
  - Currencies
4. Under *Mode* you can specify whether the upload should just be simulated, and whether the settings are to be updated or transferred again. With the *Update Tables* option, existing records are updated. With the *Rebuild Tables* option, the corresponding tables are deleted before the new records are loaded.



If you use the same BW system for EWM and ERP, make sure that you do not overwrite settings that you transferred from ERP. For example you will usually have more detailed settings for currencies in your ERP system whereas basic information is sufficient for EWM.

For units of measure the settings are expected to be identical for both systems.

5. Execute the report.

## 5. DataSources

### 5.1 DataSources in EWM

In the SAP source system, the DataSource is the BW-relevant object that makes source data available in a flat structure for data transfer into BW. The DataSource is technically based on the fields of the Extraction Structure. By defining a DataSource, these fields can be enhanced as well as hidden (or filtered) for the data transfer.

A DataSource also describes the properties of the extractor belonging to it with regard to the data transfer into BW. During replication, the properties of the DataSource relevant to BW are made known in BW.



DataSources are part of the BI Content delivered by SAP and exist in the delivery version (D version: Object type R3TR OSOD). If you want to use it for the transfer of your data from EWM to BW, you have to copy the D version to the active version (A version: Object type R3TR OSOA) and make it known in the BW system.

#### 5.1.1 Activate Application Component Hierarchy

##### Use

In this step you activate the Application Component Hierarchy (APCO) in the EWM system. The APCO organizes all the BI Content DataSources in a hierarchical order of applications. The technical name of the APCO for EWM is `/SCWM/APCO-SCM-WM`.

After the execution of this step the APCO as well as the standard DataSources are available and ready for subsequent steps like the DataSource activation.

Once you have replicated the DataSources to BW, the system displays this APCO along with the DataSources that were transferred together with it, in the source system view of the *Data Warehousing Workbench -> Modeling (RSA1)*.



You have the option of changing the transferred APCO. If you activate the BI Content APCO again, the active customer version is overwritten.

##### Procedure

1. In Customizing for the EWM system, choose *Integration with Other SAP Components -> Data Transfer to Business Warehouse -> Business Content DataSources -> Transfer Application Component Hierarchy (RSA9)*.
2. Confirm the pop-up.

After the activation of the APCOs all D versions, which are existing in the source system, are matched into one single APCO under the common node BW DATASOURCES with the key APCO\_MERGED. You can then replicate this APCO\_MERGED to the BW system in subsequent steps.



The activation-process overwrites **all** entries in A version of APCO\_MERGED and copies all APCOs in D version, which exist in the OLTP-system. They are merged into one single APCO named APCO\_MERGED in A version. Therefore all modifications of an already existing APCO\_MERGED are lost.

It is not possible to activate only some nodes of the full APCO. Transaction RSA9 always activates all APCOs in D version to one single APCO\_MERGED.

You can change the APCO in the *DataSource Repository (RSA8)*. Please note that only active APCO's can be changed.

## For Further Information

[Editing DataSources and Application Component Hierarchies \(SAP Documentation\)](#)

See also the IMG documentation.

## 5.1.2 Activate DataSources

### Use

You can use this function to activate DataSources delivered with BI Content. After doing so, you can use the connected BW system to extract and transfer data from all activated DataSources that have been replicated into the respective BW system.

### Prerequisites

You have activated the Application Component Hierarchy (see 5.1.1).

### Procedure

1. In Customizing for the EWM system, choose *Integration with Other SAP Components -> Data Transfer to Business Warehouse -> Business Content DataSources -> Transfer Business Content DataSources (RSA5)*.
2. In the tree navigate to *0BW\_DATASOURCES (BW DataSources) -> 0WM (Warehouse Management)*.
3. Choose the DataSources you want to activate and press button *Activate DataSources* to install the required DataSources. For an overview of all DataSources see the table below.

The system installs the SAP standard content DataSource as customer version (Object Version A).



### Tip

You can post-process the DataSource, for example, if you want to add a field. In Customizing for the EWM system, choose *Integration with Other SAP Components -> Data Transfer to Business Warehouse -> Postprocessing of DataSources -> Edit DataSources and Application Component Hierarchy (RSA6)*.

**Table: DataSources provided with EWM 9.0**

Sub-tree	Technical Name	Description
0WM-IO	0WM_LGNUM_ATTR	Attributes of a Warehouse
0WM-IO	0WM_LGNUM_TEXT	Warehouse Number Descriptions
0WM-IO	0WM_WH COST	Warehouse Costs
0WM-IO	0WM_DLVPROC_TEXT	Business Process Descriptions
0WM-IO	0WM_EXCCODE_TEXT	Exception Code Descriptions
0WM-IO	0WM_EXCOBJTYPE_TEXT	Exception Object Type Descriptions
0WM-IO	0WM_MS_TEXT	Measurement Service Names
0WM	0WM_BIN	Storage Bins
0WM	0WM_BIN_FULL	Storage Bins Full Upload
0WM	0WM_DLVI	Delivery Items
0WM	0WM_DLVI_IN	Inbound Delivery Items
0WM	0WM_DLVI_OUT	Outbound Delivery Items
0WM	0WM_EWL	Executed Workload
0WM	0WM_EXCCODE	Exceptions
0WM	0WM_MS_RESULT	Measurement Service Results

Sub-tree	Technical Name	Description
OWM	OWM_PL_DLVI	Delivery-Item-Related Execution Data
OWM	OWM_POD	Proof Of Delivery
OWM	OWM_STOCK	Stocks
OWM	OWM_TU	Transportation Units
OWM	OWM_VAS	Value-Added Services
OWM	OWM_WO	Warehouse Orders
OWM	OWM_WT	Warehouse Tasks
OWM	OWM_WT_WO	Warehouse Tasks

 **Recommendation**

If possible replace the DataSource (light gray in upper table) by newer DataSources as listed in the table below.

**Table: DataSources that should be replaced by newer DataSources**

DataSource to be replaced	Newer DataSource	Reasons for replacement
OWM_BIN	OWM_BIN_FULL	OWM_BIN_FULL is pull-enabled
OWM_WT	OWM_WT_WO	OWM_WT_WO is pull-enabled, BI Content exists BUT: It does not extract warehouse documents like GI Posting, GR Posting and Posting Changes as OWM_WT does
OWM_DLVI	OWM_DLVI_IN OWM_DLVI_OUT	OWM_DLVI_IN / OWM_DLVI_OUT are pull-enabled and extract inbound and outbound delivery items separately

**For Further Information**

[Editing DataSources and Application Component Hierarchies \(SAP Documentation\)](#)

See also the IMG documentation.

## 5.2 DataSources in BW

### 5.2.1 Activate Source System

**Use**

You can use this procedure to activate the source system in the BW system.

The system initializes the system connection by setting up an initial remote function call. In the background it sets up the IDoc interface.

**Prerequisites**

You have defined the source system according to section 4.3.

**Procedure**

1. In BW start the *Data Warehousing Workbench (RSA1)*. In the tree navigate to *Modeling -> Source Systems*.
2. Go to sub-section *Source Systems* and choose *Activate* in the context menu of your source system.
3. The system sends a pop-up *Additional to Activation Replicate Metadata?* Choose the processing variant you would like to execute:

- *Only Activate*
- *Replicate As Well*

If you choose this option, you do not need to execute the following step “Replicate DataSources” separately.

4. You can check the IDoc settings in the following transactions:
  - Ports in IDoc processing (WE21)
  - Partner Profiles (WE20)

## 5.2.2 Replicate DataSources

### Use

You can use this procedure to replicate DataSources from the EWM to the BW system.

When you activate a DataSource the system creates a transparent [PSA \(SAP Documentation\)](#) table with the same structure as the DataSource.

### Prerequisites

You have executed the following steps

- DataSources in EWM (section 5.1)
- Activate Source System (section 5.2.1)

### Procedure

1. In BW start the *Data Warehousing Workbench (RSA1)*. In the tree navigate to *Modeling -> DataSources*.
2. Press button *Choose Source System* and choose your source system.
3. Open node *BW DataSources (OBW\_DATASOURCES) -> Warehouse Management (OWM)*.
4. In the context menu of node *Warehouse Management (OWM)* click on *Replicate Metadata*.

### Alternative Procedure for EWM Standalone System

You can also replicate all data sources from your source system. This might be an option if your EWM system is a EWM Standalone system, so that the number of DataSources is limited and restricted to the DataSources of EWM and the underlying software layers.

1. In BW start the *Data Warehousing Workbench (RSA1)*. In the tree navigate to *Modeling -> Source Systems*.
2. Go to sub-section *Source Systems* and choose *Replicate DataSources* in the context menu of your source system.

### Alternative Procedure for Single DataSource

Sometimes it is necessary to replicate a single DataSource that has not yet been transferred to BW, if you want to add an object to your reporting or after an upgrade. In this case you can proceed as follows:

1. Start transaction *DataSource Repository (RSDS)*.
2. Enter the *DataSource* and the *Source System*.
3. Choose *DataSource -> Replicate DataSource*.

### For Further Information

- [Replication of DataSources \(SAP Documentation\)](#)
- [Persistent Staging Area \(SAP Documentation\)](#)



## 6. Activate BI Content

### 6.1 InfoObjects

#### Use

BI Content is shipped in the delivery version (D version). Before you can work with BI Content objects, you have to copy them from the delivery version (D version) to the active version (A version). This means that you must activate the BI Content.

You can collect the delivered BI Content in the function area *BI Content* of the *Data Warehousing Workbench* and copy it to the active version. This ensures that all additional required objects are automatically included, together with the activation sequence.

#### Prerequisites

You have activated your source system (see section 5.2.1).

You have replicated the DataSources (see section 5.2.2).

#### Procedure

1. In BW start the *Data Warehousing Workbench* (RSA1). In the tree navigate to *BI Content*-> *InfoProviders by InfoArea*.
2. In the center screen open the section *Supply Chain Management (OSCM)* -> *Extended Warehouse Management (OWM)*.
3. Specify the target source system. Press button *Source System Assignment* (Shift + F7), alternatively choose *Edit* -> *Source System Assignment* in the menu. On the pop-up select your source system, for example **EWMCINT001** and press enter to confirm your input.

#### Recommendation

Only select those source systems that you require; otherwise, you may have to wait longer than required when objects are collected.

4. On the right pane, you can set the *Grouping*. If you select the objects as described below you can use the default setting *Only Necessary Objects*.  
For details see [Define Grouping Mode \(SAP Documentation\)](#)
5. On the right pane, you can set the *Collection Mode*:  
If you choose *Collect Automatically* (default setting), the system collects the data when you select an object. You will have to wait some time for each object when you select it.  
If you choose *Start Manual Collection*, the system collects the data when you press button *Gather Dependent Objects*.
6. Collect the objects you want to activate. In the center screen area, select the objects that you want to collect, and drag and drop them to the *Collected Objects* screen area on the right.  
You can select all InfoObjects for EWM together by drag and drop of node *Extended Warehouse Management (OWM)*.
7. If you have set the collection mode to *Start Manual Collection* in (5), press button *Gather Dependent Objects*.
8. Press button *Install*.

#### CAUTION

If you already use BI content for EWM, check whether you want to use the new SAP version or continue to use your own copy. Set flag *Match (X)* or *Copy* or Remove the flag in column *Install* where you want to keep your existing copy. See [Checking Settings \(SAP Documentation\)](#) for details.

**Table: InfoObjects for EWM**

InfoObject Type	Technical Name	Description
MultiProvider	OWM_MP01	Results Measurement Services
MultiProvider	OWM_MP02	Executed Workload
MultiProvider	OWM_MP03	Aggregated Executed Workload
MultiProvider	OWM_MP04	Aggregated Exceptions
MultiProvider	OWM_MP05	Warehouse Orders and Tasks
MultiProvider	OWM_MP07	Storage Bins
MultiProvider	OWM_MP11	Storage Bins Full Upload
MultiProvider	OWM_MP12	Outbound Delivery Items
MultiProvider	OWM_MP13	Inbound Delivery Items
MultiProvider	OWM_MP14	Aggregated Stocks
MultiProvider	OWM_MP16	Transportation Units
MultiProvider	OWM_MP17	Warehouse Orders
MultiProvider	OWM_MP19	Proof Of Delivery
MultiProvider	OWM_MP21	Warehouse Delivery Efficiency
InfoCube	OWM_C01	Aggregated Executed Workload
InfoCube	OWM_C02	Aggregated Exceptions
InfoCube	OWM_C04	Warehouse Orders
InfoCube	OWM_C05	Warehouse Tasks
InfoCube	OWM_C07	Storage Bins
InfoCube	OWM_C09	Strategic Planning - Reporting Data
InfoCube	OWM_C10	Strategic Planning - Planning Data
InfoCube	OWM_C11	Storage Bins Full Upload
InfoCube	OWM_C12	Outbound Delivery Items
InfoCube	OWM_C13	Inbound Delivery Items
InfoCube	OWM_C14	Aggregated Stocks
InfoCube	OWM_C16	Transportation Units
InfoCube	OWM_C19	Proof of Delivery
InfoCube	OWM_C21	Aggregated Outbound Delivery Items
InfoSet	OWM_IS21	Warehouse Delivery Efficiency
DataStore Object	OWM_DS01	Results Measurement Services
DataStore Object	OWM_DS02	Executed Workload
DataStore Object	OWM_DS03	Exceptions
DataStore Object	OWM_DS04	Warehouse Order
DataStore Object	OWM_DS05	Warehouse Tasks Items
DataStore Object	OWM_DS07	Storage Bins

InfoObject Type	Technical Name	Description
DataStore Object	OWM_DS08	Value Added Service Orders
DataStore Object	OWM_DS09	Delivery - Related Planning Data
DataStore Object	OWM_DS11	Storage Bins Full Upload
DataStore Object	OWM_DS12	Outbound Delivery Items
DataStore Object	OWM_DS13	Inbound Delivery Items
DataStore Object	OWM_DS14	Aggregated Stocks
DataStore Object	OWM_DS15	Transportation Units
DataStore Object	OWM_DS17	Stocks
DataStore Object	OWM_DS18	Proof Of Delivery

### For Further Information

[Copying BI Content to the Active Version \(SAP Documentation\)](#)

[Collecting Objects \(SAP Documentation\)](#)

[Checking Settings \(SAP Documentation\)](#)

[Special Features of Source System-Dependent Objects \(SAP Documentation\)](#)

## 6.2 Queries

### Use

To use the info objects you have installed in the previous section for data analysis you need to install also the respective queries and web templates.

### Prerequisites

You have activated the InfoObjects (see section 6.1).

### Procedure

1. In BW start the *Data Warehousing Workbench* (RSA1). In the tree navigate to *BI Content-> Object Types*.
2. In the center screen open the node *Query Elements -> Query*.
3. Double-click on node *Select Objects*.



#### Tip

On the pop-up, press the button *Display Technical Names on/off* (F7).

On the pop-up, open the node *Supply Chain Management -> Extended Warehouse Management*. Open the nodes and select the required queries by clicking on them with the left mouse button while pressing the CTRL key.

Press button *Transfer Selections*.

4. Press button *Install*.



#### CAUTION

If you already use BI content for EWM, check whether you want to use the new SAP version or continue to use your own copy. Set flag *Match (X) or Copy* or Remove the flag in column *Install* where you want to keep your existing copy. See [Checking Settings \(SAP Documentation\)](#) for details.

**Table: Queries for EWM**

Technical Name	Description
OWM_MP01_Q0001	Results Measurement Services
OWM_MP02_Q0001	Executed Workload
OWM_MP03_Q0001	Aggregated Executed Workload
OWM_MP03_Q0002	Labor Management - Executed Workload
OWM_MP03_Q0003	Labor Management - Workload per Processor
OWM_MP04_Q0001	Number of Exceptions per Processor
OWM_MP04_Q0002	Number of Exceptions
OWM_MP05_Q0001	Sum of Volume and Weight for the completed WO
OWM_MP05_Q0002	Number of completed WT Items
OWM_MP05_Q0003	Total, Weight, Volume, and Proc. Time for Picking
OWM_MP05_Q0004	Total, Weight, Volume, and Proc. Time for Picking - Weekday
OWM_MP05_Q0005	Total, Weight, Volume, and Proc. Time for Putaway
OWM_MP05_Q0006	Total, Weight, Volume, and Proc. Time for Putaway - Weekday
OWM_MP05_Q0007	Ratio of Pallet Picking Against Total Picking
OWM_MP05_Q0008	Ratio of Pallet Picking Against Total Picking - Weekday
OWM_MP07_Q0001	Maximum storage capacity, weight, volume of a bin
OWM_MP11_Q0001	Warehouse Capacity Level - Occupied Bins
OWM_MP11_Q0001_DB	Warehouse Capacity Level for Dashboard
OWM_MP11_Q0002	Warehouse Capacity Level - Handling Units
OWM_MP11_Q0003	Warehouse Capacity Level - Assigned Empty Bins
OWM_MP12_Q0001	Outb. Del. Items: Total, Weight, Volume, and Value
OWM_MP12_Q0001_DB	Outbound Delivery Items for Dashboard
OWM_MP12_Q0002	Outb. Del. Items: Total, Weight, Volume, and Value - Weekday
OWM_MP12_Q0002_DB	Ratio of Outbound Delivery Errors for Dashboard
OWM_MP12_Q0003	Ratio of Outbound Items Delivered on Time
OWM_MP12_Q0003_DB	Ratio of Outbound Items Delivered on Time for Dashboard
OWM_MP12_Q0004	Ratio of Outbound Delivery Errors
OWM_MP13_Q0001	Inb. Del. Items: Total, Weight, Volume, and Value
OWM_MP13_Q0002	Inb. Del. Items: Total, Weight, Volume, and Value - Weekday
OWM_MP14_Q0001	Stock Items: Total, Weight, Volume, and Value
OWM_MP14_Q0001_DB	Stock Items for Dashboard
OWM_MP16_Q0001	Inbound TUs: Total, Weight, Volume, and Time in Yard
OWM_MP16_Q0002	Outbound TUs: Total, Weight, Volume, and Time in Yard
OWM_MP17_Q0001	Warehouse Orders: Total, and Processing Time
OWM_MP17_Q0002	Warehouse Orders: Total, and Processing Time - Weekday

Technical Name	Description
0WM_MP19_Q0001	Proof of Delivery
0WM_MP21_Q0001	Average Warehouse Costs and Delivery Efficiency per FTE
0WM_MP21_Q0001_DB	Warehouse Delivery Efficiency for Dashboard
0WM_A10_Q001	Strategic Planning for Version 1
0WM_A10_Q002	Strategic Planning Results for Version 2

### For Further Information

[Copying BI Content to the Active Version \(SAP Documentation\)](#)

[Collecting Objects \(SAP Documentation\)](#)

[Checking Settings \(SAP Documentation\)](#)

[BEx Query Designer \(SAP Documentation\)](#)

## 6.3 Web Templates

### Use

To use the info objects you have installed in the previous section for data analysis you need to install also the respective queries and web templates.

### Prerequisites

You have activated the InfoObjects (see section 6.1).

### Procedure

1. In BW start the *Data Warehousing Workbench (RSA1)*. In the tree navigate to *BI Content-> Object Types*.
2. In the center screen open the node *BEx Web Template*.
3. Double-click on node *Select Objects*.



### Tip

On the pop-up, mark the column *Object Name* and press button *Filter*. Enter *0TPL\_0WM\** and confirm your input. The system shows all Web Templates for EWM only.

On the pop-up, select the required objects by clicking on them with the left mouse button while pressing the *CTRL* key.

Press button *Transfer Selection*.

4. Press button *Install*.



### CAUTION

If you already use BI content for EWM, check whether you want to use the new SAP version or continue to use your own copy. Set flag *Match (X) or Copy* or Remove the flag in column *Install* where you want to keep your existing copy. See [Checking Settings \(SAP Documentation\)](#) for details.

**Table: BEx Web Templates for EWM**

Object Name	Description
0TPL_0WM_MP04_Q0002	Number of Exceptions
0TPL_0WM_MP05_Q0003	Total, Weight, Volume, and Proc. Time for Picking
0TPL_0WM_MP05_Q0004	Total, Weight, Volume, and Proc. Time for Picking - Weekday
0TPL_0WM_MP05_Q0005	Total, Weight, Volume, and Proc. Time for Putaway

Object Name	Description
OTPL_OWM_MP05_Q0006	Total, Weight, Volume, and Proc. Time for Putaway - Weekday
OTPL_OWM_MP05_Q0007	Ratio of Pallet Picking Against Total Picking
OTPL_OWM_MP05_Q0008	Ratio of Pallet Picking Against Total Picking - Weekday
OTPL_OWM_MP11_Q0001	Warehouse Capacity Level - Occupied Bins
OTPL_OWM_MP11_Q0002	Warehouse Capacity Level - Handling Units
OTPL_OWM_MP11_Q0003	Warehouse Capacity Level - Assigned Empty Bins
OTPL_OWM_MP12_Q0001	Outb. Del. Items: Total, Weight, Volume, and Value
OTPL_OWM_MP12_Q0002	Outb. Del. Items: Total, Weight, Volume, and Value - Weekday
OTPL_OWM_MP12_Q0003	Ratio of Outbound Items Delivered on Time
OTPL_OWM_MP12_Q0004	Ratio of Outbound Delivery Errors
OTPL_OWM_MP13_Q0001	Inb. Del. Items: Total, Weight, Volume, and Value
OTPL_OWM_MP13_Q0002	Inb. Del. Items: Total, Weight, Volume, and Value - Weekday
OTPL_OWM_MP14_Q0001	Stock Items: Total, Weight, Volume, and Value
OTPL_OWM_MP16_Q0001	Inbound TUs: Total, Weight, Volume, and Time in Yard
OTPL_OWM_MP16_Q0002	Outbound TUs: Total, Weight, Volume, and Time in Yard
OTPL_OWM_MP17_Q0001	Warehouse Orders: Total, and Processing Time
OTPL_OWM_MP17_Q0002	Warehouse Orders: Total, and Processing Time - Weekday
OTPL_OWM_MP19_Q0001	Proof of Delivery
OTPL_OWM_MP21_Q0001	Average Warehouse Costs and Delivery Efficiency per FTE

#### For Further Information

[Copying BI Content to the Active Version \(SAP Documentation\)](#)

[Collecting Objects \(SAP Documentation\)](#)

[Checking Settings \(SAP Documentation\)](#)

[BEx Web \(SAP Documentation\)](#)

## 6.4 Transformations

### Use

The transformation process allows you to consolidate, cleanse, and integrate data. You can semantically synchronize data from heterogeneous sources.

When you load data from one BW object into another BW object, the data passes through a transformation. A transformation converts the fields of the source into the format of the target.

You can use this procedure to install the transformations for the InfoObjects you have installed in the previous section.

### Prerequisites

You have replicated the DataSources (see section 5.2.2)

You have activated the InfoObjects (see section 6.1).

### Procedure

1. In BW start the *Data Warehousing Workbench* (RSA1). In the tree navigate to *BI Content-> Object Types*.
2. In the center screen open the node *Transformation*.

- Double-click on node *Select Objects*.

**Tip**

On the popup, mark the column *Long Description* and press button *Filter*. Enter **\*0WM\*** and confirm your input. The system shows all transformations for EWM only.

On the pop-up, select the required transformations by clicking on them with the left mouse button while pressing the **CTRL** key.

Press button *Transfer Selections*.

- Press button *Install*.

**CAUTION**

If you already use BI content for EWM, check whether you want to use the new SAP version or continue to use your own copy. Set flag *Match (X)* or *Copy* or Remove the flag in column *Install* where you want to keep your existing copy. See [Checking Settings \(SAP Documentation\)](#) for details.

**Table: Transformations for EWM InfoObjects**

From InfoObject Type	From-InfoObject	To InfoObject Type	To-InfoObject	Source System Dependent
RSDS	0WM_BIN	ODSO	0WM_DS07	X
RSDS	0WM_BIN_FULL	ODSO	0WM_DS11	X
RSDS	0WM_DLVI_IN	ODSO	0WM_DS13	X
RSDS	0WM_DLVI_OUT	ODSO	0WM_DS12	X
RSDS	0WM_EWL	ODSO	0WM_DS02	X
RSDS	0WM_EXCCODE	ODSO	0WM_DS03	X
RSDS	0WM_MS_RESULT	ODSO	0WM_DS01	X
RSDS	0WM_PL_DLVI	ODSO	0WM_DS09	X
RSDS	0WM_POD	ODSO	0WM_DS18	X
RSDS	0WM_STOCK	ODSO	0WM_DS17	X
RSDS	0WM_TU	ODSO	0WM_DS15	X
RSDS	0WM_VAS	ODSO	0WM_DS08	X
RSDS	0WM_WO	ODSO	0WM_DS04	X
RSDS	0WM_WT_WO	ODSO	0WM_DS05	X
RSDS	0WM_DLVPROC_TEXT	IOBJ	0WM_DLVPROC	X
RSDS	0WM_EXCCODE_TEXT	IOBJ	0WM_EXCCODE	X
RSDS	0WM_EXCOBJTYPE_TEXT	IOBJ	0WM_EXCOBTY	X
RSDS	0WM_LGNUM_ATTR	IOBJ	0WM_LGNUM	X
RSDS	0WM_LGNUM_TEXT	IOBJ	0WM_LGNUM	X
RSDS	0WM_MS_TEXT	IOBJ	0WM_MS	X
RSDS	0WM_WHCCOST	IOBJ	0WM_LGNUM	X
ODSO	0WM_DS04	IOBJ	0WM_AAPTIO	
ODSO	0WM_DS05	ODSO	0WM_DS04	

From InfoObject Type	From-InfoObject	To InfoObject Type	To-InfoObject	Source System Dependent
ODSO	0WM_DS17	ODSO	0WM_DS14	
ODSO	0WM_DS18	ODSO	0WM_DS12	
ODSO	0WM_DS02	CUBE	0WM_C01	
ODSO	0WM_DS03	CUBE	0WM_C02	
ODSO	0WM_DS04	CUBE	0WM_C04	
ODSO	0WM_DS05	CUBE	0WM_C05	
ODSO	0WM_DS07	CUBE	0WM_C07	
ODSO	0WM_DS09	CUBE	0WM_C09	
ODSO	0WM_DS11	CUBE	0WM_C11	
ODSO	0WM_DS12	CUBE	0WM_C12	
ODSO	0WM_DS13	CUBE	0WM_C13	
ODSO	0WM_DS14	CUBE	0WM_C14	
ODSO	0WM_DS15	CUBE	0WM_C16	
ODSO	0WM_DS18	CUBE	0WM_C19	
CUBE	0WM_C09	CUBE	0WM_C10	
CUBE	0WM_C12	CUBE	0WM_C21	

**For Further Information**

[Transformation \(SAP Documentation\)](#)

[Special Features of Source System-Dependent Objects \(SAP Documentation\)](#)



## 7. Set up Extraction in EWM

### 7.1 Maintaining Control Parameters for Data Transfer

#### Use

Maintain the control parameters for data transfer from a SAP source system. You can maintain the package size and the default frequency for the extraction.

#### Procedure

1. In Customizing for the EWM system, choose *Integration with Other SAP Components -> Data Transfer to Business Warehouse -> General Settings -> Maintain Control Parameters for Data Transfer*.
2. Maintain the settings for your source system. To calculate a suitable size for the data packages use the information in the IMG documentation and [Maintaining Control Parameters for Data Transfer \(SAP Documentation\)](#)




### 7.2 Settings for Push Extraction

Some EWM DataSources are using the PUSH extraction. In this case the application writes delta records directly into the BW delta queue during the transactional processing. During the extraction, the system reads the BW delta queue and transfers the corresponding data to the BW system.

The following steps are necessary for DataSources using the PUSH extraction:

- Configuration of the update mode
- Activation of the BW update
- Optional: Making already existing transactional data available for the initial extraction (so-called Setup)

**Table: EWM DataSources using the PUSH extraction**

Technical Name	Description	Remarks
OWM_BIN	Storage Bins	 <b>Recommendation</b> Use DataSource OWM_BIN_FULL (see section 5.1.2)
OWM_WO	Warehouse Orders	
OWM_VAS	Value-Added Services	
OWM_WT	Warehouse Tasks	 <b>Recommendation</b> Use DataSource OWM_WT_WO (see section 5.1.2)
OWM_DLVI	Delivery Items	 <b>Recommendation</b> Use DataSources OWM_DLVI_IN and OWM_DLVI_OUT (see section 5.1.2)

#### Important

The other EWM DataSources are using PULL extraction and do not need any pre-treatment for the extraction.

## 7.2.1 Configure Update Mode

### Use

You can use this procedure to configure the update mode the system has to use to update the BW delta queue with transactional data when you update the transactional data in EWM.

### Procedure

1. In Customizing of the EWM system, choose *SCM Extended Warehouse Management -> Extended Warehouse Management -> Interfaces -> SAP Business Information Warehouse -> General Settings -> Configure Update Mode*.
2. Configure the *Update Mode* for each event you want to activate in the next step.

#### Recommendation

If you expect a huge amount of data you should use update mode *Queued Delta*.

#### Note

The event stands for the following DataSources:

Storage Bins - OWM\_BIN

Delivery Items - OWM\_DLVI

Value-Added Services - OWM\_VAS

Warehouse Orders - OWM\_WO

Warehouse Tasks - OWM\_WT

### For Further Information

See note 505700.

## 7.2.2 Activate BW Update

### Use

You can use this procedure to activate the update of the BW delta queue with transactional data.

### Procedure

1. In Customizing of the EWM system, choose *SCM Extended Warehouse Management -> Extended Warehouse Management -> Interfaces -> SAP Business Information Warehouse -> General Settings -> Activate SID update*.
2. Set the checkbox *Activated* for all events you want to activate.

#### Note

The event stands for the following DataSources:

Storage Bins - OWM\_BIN

Delivery Items - OWM\_DLVI

Value-Added Services - OWM\_VAS

Warehouse Orders - OWM\_WO

Warehouse Tasks - OWM\_WT

## 7.2.3 Optional: Setup

### Use

You can use this procedure to make already existing transactional data available for the initial upload. Using reports you can transfer the transactional data from the application table to cluster tables. This procedure is called "Setup", the cluster tables are the setup tables.

## Procedure

1. Initialize the setup tables. Start the *SAP Easy Access Menu* in the EWM system and choose *SCM Extended Warehouse Management -> Extended Warehouse Management -> Interfaces -> SAP Business Information Warehouse -> Setup -> Delete Setup Table*.
2. Set the checkbox for the DataSource you want to use and press *Execute* (F8).
3. Execute the "Setup". Start *SAP Easy Access Menu* in the EWM system and choose *SCM Extended Warehouse Management -> Extended Warehouse Management -> Interfaces -> SAP Business Information Warehouse -> Setup -> Delivery-Specific Data or Warehouse-Specific Data*. Start the transaction for the DataSource you want to use (see table below).

**Table: Transactions for setup reports**

Data Source	Menu Text	Folder	Transaction
OWM_BIN	Setup of Storage Bins	Warehouse-Specific Data	/SCWM/BW11
OWM_DLVI	Setup of Delivery Items	Delivery-Specific Data	/SCWM/BW21
OWM_VAS	Setup of Value-Added Services	Warehouse-Specific Data	/SCWM/BW14
OWM_WO	Setup of Warehouse Orders	Warehouse-Specific Data	/SCWM/BW13
OWM_WT	Setup of Warehouse Tasks	Warehouse-Specific Data	/SCWM/BW12

4. Enter your selection criteria to restrict the data to be extracted by the initial upload and press *Execute* (F8).

## 8. Full Upload of Master Data to BW

### 8.1 Create and Execute InfoPackage

#### Use

An InfoPackage describes which data in a DataSource should be requested from a source system. When you execute an InfoPackage the data are transferred from the source system to the PSA.

Usually it is sufficient to transfer the master data once. A repetition would be required, for example, when you add another warehouse to your source system or when SAP adds a new value to one of the transferred domains or customizing tables. An exception of this rule is the DataSource *Warehouse Costs* (OWM\_WHCOST). Transfer the warehouse costs whenever you change them in EWM.

#### Prerequisites

You have replicated the DataSources for the master data (see section 5.2.2).

You have activated the InfoObjects (see section 6.1).

#### Procedure

1. In BW start the *Data Warehousing Workbench* (RSA1). In the tree navigate to *Modeling* -> *DataSources*.
2. Press the button *Choose Source System* and choose your source system.
3. Open node *BW DataSources (0BW\_DATASOURCES)* -> *Warehouse Management (OWM)* -> *Warehouse Management - IO (OWM-IO)*.



The following section describes the procedure on the example of DataSource OWM\_LGNUM\_ATTR. The steps are similar for all DataSources listed in table below.

4. In the context menu for the DataSource OWM\_LGNUM\_ATTR choose *Create InfoPackage*.
  5. The system sends a pop-up. Enter **OWM\_LGNUM\_ATTR Full Upload** as *InfoPackage Description* and press button *Save*.
  6. On tab page *Data Selection* enter a range for the warehouse number if you want to restrict the selection. If you want extract all warehouse numbers you do not need to enter anything.
  7. On tab pages *Extraction* and *Processing* do not change anything.
  8. On tab page *Update* check that the *Update Mode* is set to *Full Update*. This is done automatically as the DataSource is only prepared for a full upload.
  9. On tab page *Schedule* choose *Start Data Load Immediately*. Press button *Start*.
  10. Press button *Monitor* (F6) to check the result of your extraction.
- Repeat steps 4 to 10 for the remaining DataSources (see table below).

**Table: DataSources for full upload (master data)**

Technical Name	Description
OWM_LGNUM_ATTR	Attributes of a Warehouse
OWM_WHCOST	Warehouse Costs
OWM_LGNUM_TEXT	Warehouse Number Descriptions
OWM_DLVPROC_TEXT	Business Process Descriptions
OWM_EXCCODE_TEXT	Exception Code Descriptions
OWM_EXCOBJTYPE_TEXT	Exception Object Type Descriptions
OWM_MS_TEXT	Measurement Service Names

## For Further Information

[InfoPackage \(SAP Documentation\)](#)

[Creating InfoPackages \(SAP Documentation\)](#)

[Procedure for SAP Systems \(SAP Documentation\)](#)



### Note

If you want to display additional texts in your queries, you can build your own DataSources for texts. A list of suitable tables where to find the texts in EWM you can find in note 1719156.

## 8.2 Create and Execute Data Transfer Process

### Use

A data transfer process (DTP) is an object that determines how data is transferred between two persistent objects in BW. In this section you use the DTP to transfer data within BW from the PSA to the EWM master data in BW.



### Important

After the execution of the DTP you must activate the master data first before it is available for reporting. This is not true for texts. Texts are active immediately. For further information see [Activating Master Data \(SAP Documentation\)](#).

### Prerequisites

You have created and executed the InfoPackages for the master data (see section 8.1).

### Procedure

1. In BW start the *Data Warehousing Workbench (RSA1)*. In the tree navigate to *Modeling -> InfoProvider*.
2. In the center screen open the section *Supply Chain Management (OSCM) -> Extended Warehouse Management (OWM) -> Master Data Extended Warehouse Management (OWM\_IO)*.



### Note

The following section describes the procedure on the example of Characteristic `OWM_LGNUM`. The steps are similar for all Characteristics listed in table below.

3. Open node *Warehouse Number (OWM\_LGNUM)*.
4. In the context menu of node *Warehouse Number (Attribute) (ATTRIBUTES OWM\_LGNUM)* choose *Create Data Transfer Process*.
5. The system sends a pop-up. Enter the required data:



### Example

Data Transfer Proc.	<text will be generated by system>
DTP Type	<b>Standard (Can Be Scheduled)</b>
Source of DTP	
Object Type	<b>DataSource</b>
DataSource	<b>OWM_LGNUM_ATTR</b>
Source System	<b>EWMCLNT001</b>

Press button *Continue*.

6. On tab pages *Extraction*, *Update* and *Execute* use default settings.
7. Activate the DTP.
8. On tab page *Execute* press button *Execute*. The system sends a pop-up. Press button *Yes* to navigate to the request monitor.

9. Check the result. Press button *Refresh Request* when necessary.
10. Repeat step 4 for node *Warehouse Number (Attribute)* to create and execute the DTP for the time-dependent attributes of Characteristic `OWM_LGNUM`, namely the warehouse costs.
11. The system sends a pop-up. Enter the required data:

**Example**

Data Transfer Proc. <text will be generated by system>  
 DTP Type **Standard (Can Be Scheduled)**  
 Source of DTP  
 Object Type **DataSource**  
 DataSource **OWM\_WHCOST**  
 Source System **EWMCLNT001**

Press button *Continue*.

12. Repeat steps 6 to 9.
13. Open node *Warehouse Number (Texts)* (`TEXTS OWM_LGNUM`).
14. Repeat steps 4 to 9 for node *Warehouse Number (Texts)*.

Repeat steps 3 to 9 for the remaining Characteristics (see table below).

**Table: Characteristics for EWM master data in BW**

Technical Name	Description	DTP for Texts	DTP for Attributes
OWM_DLVPROC	Delivery Business Process	X	
OWM_EXCCODE	Exception Code	X	
OWM_EXCOBTY	Object Type for Exception Code History	X	
OWM_LGNUM	Warehouse Number	X	X
OWM_MS	Measurement Service	X	

**For Further Information**

[Data Transfer Process \(SAP Documentation\)](#)

[Creating Data Transfer Processes \(SAP Documentation\)](#)

[Processing Modes of Data Transfer Processes \(SAP Documentation\)](#)

## 9. Initial Upload of Application Data to BW

### 9.1 Create and Execute InfoPackage

#### Use

An InfoPackage describes which data in a DataSource should be requested from a source system. When you execute an InfoPackage the data are transferred from the source system to the PSA.

For application data you need one InfoPackage for the initial upload of existing data from EWM to BW and one InfoPackage for the delta upload (see section 10.1) for the continuous upload of new created data.

#### Prerequisites

You have replicated the DataSources for the application data (see section 5.2.2).

You have activated the InfoObjects (see section 6.1).

You have performed the steps for the DataSources with PUSH extraction (see section 7.2).

You have performed the full upload of the master data (see section 8).

#### Procedure

1. In BW start the *Data Warehousing Workbench* (RSA1). In the tree navigate to *Modeling* -> *DataSources*.
2. Press the button *Choose Source System* and choose your source system.
3. Open node *BW DataSources (0BW\_DATASOURCES)* -> *Warehouse Management (0WM)*.



The following section describes the procedure on the example of DataSource `0WM_DLVI_IN`. The steps are similar for all DataSources listed in table below.

4. In the context menu for the DataSource `0WM_DLVI_IN` choose *Create InfoPackage*.
5. The system sends a pop-up. Enter `0WM_DLVI_IN Initial Upload` as *InfoPackage Description* and press button *Save*.
6. On tab page *Data Selection* enter a range for the warehouse number if you want to restrict the selection. If you want extract data for all warehouse numbers you do not need to enter anything.
7. On tab pages *Extraction*, *Processing* and *Data Targets* do not change anything.
8. On tab page *Update* set the *Update Mode* to *Initialize Delta Process* with *Initialize with Data Transfer*.
9. On tab page *Schedule* choose *Start Data Load Immediately*.
10. You can press button *Monitor* (F6) later to check the result of your extraction.

Repeat steps 4 to 10 for the remaining DataSources (see table below).

**Table: DataSources for initial upload**

Technical Name	Description
0WM_DLVI_IN	Inbound Delivery Items
0WM_DLVI_OUT	Outbound Delivery Items
0WM_EWL	Executed Workload
0WM_EXCCODE	Exceptions
0WM_MS_RESULT	Measurement Service Results
0WM_PL_DLVI	Delivery-Item-Related Execution Data
0WM_POD	Proof Of Delivery

Technical Name	Description
OWM_TU	Transportation Units
OWM_VAS	Value-Added Service
OWM_WO	Warehouse Orders
OWM_WT_WO	Warehouse Tasks

### For Further Information

[InfoPackage \(SAP Documentation\)](#)

[Creating InfoPackages \(SAP Documentation\)](#)

[Procedure for SAP Systems \(SAP Documentation\)](#)

[Scheduling InfoPackages \(SAP Documentation\)](#)

## 9.2 Create and Execute Data Transfer Process

### Use

A data transfer process (DTP) is an object that determines how data is transferred between two persistent objects in BW. In this section you use the DTP to transfer data within BW from the PSA to the EWM application data in BW.

#### Important

After the execution of the DTP into a DataStore Object you must activate the application data first before it is available for reporting or for the upload into the InfoProvider. For further information see [Processing Data in the DataStore Object \(SAP Documentation\)](#).

### Prerequisites

You have created and executed the InfoPackages for the initial upload of the application data (see section 9.1).

### Procedure

1. In BW start the *Data Warehousing Workbench (RSA1)*. In the tree navigate to *Modeling -> InfoProvider*
2. In the center screen open the section *Supply Chain Management (OSCM) -> Extended Warehouse Management (OWM)*.

#### Note

The following section describes the procedure on the example of DataStore Object `OWM_DS13`. The steps are similar for all To-InfoObjects listed in table below.

3. In the context menu for the DataStore Object `OWM_DS13` choose *Create Data Transfer Process*.
4. The system sends a pop-up. Enter the required data:

#### Example

Data Transfer Proc.	<text will be generated by system>
DTP Type	<b>Standard (Can Be Scheduled)</b>
Source of DTP	
Object Type	<b>Data Source</b>
DataSource	<b>OWM_DLVI_IN</b>
Source System	<b>EWMCLNT001</b>

Press button *Continue*.

5. On tab pages *Extraction*, *Update* and *Execute* use default settings.
6. Activate the DTP.



7. On tab page *Execute* press button *Execute*. The system sends a pop-up. Press button *Yes* to navigate to the request monitor.
  8. Check the result. Press button *Refresh Request* when necessary.
- Repeat steps 3 to 8 for the remaining To-InfoObjects (see table below).

**Table: DTPs for EWM-related objects**

From InfoObject Type	From-InfoObject	To InfoObject Type	To-InfoObject	Remarks
RSDS	0WM_DLVI_IN	ODSO	0WM_DS13	Activate data in DataStore Object
RSDS	0WM_DLVI_OUT	ODSO	0WM_DS12	Activate data in DataStore Object
RSDS	0WM_EWL	ODSO	0WM_DS02	Activate data in DataStore Object
RSDS	0WM_EXCCODE	ODSO	0WM_DS03	Activate data in DataStore Object
RSDS	0WM_MS_RESULT	ODSO	0WM_DS01	Activate data in DataStore Object
RSDS	0WM_PL_DLVI	ODSO	0WM_DS09	Activate data in DataStore Object
RSDS	0WM_POD	ODSO	0WM_DS18	Activate data in DataStore Object
RSDS	0WM_TU	ODSO	0WM_DS15	Activate data in DataStore Object
RSDS	0WM_VAS	ODSO	0WM_DS08	Activate data in DataStore Object
RSDS	0WM_WO	ODSO	0WM_DS04	Activate data in DataStore Object
RSDS	0WM_WT_WO	ODSO	0WM_DS05	Activate data in DataStore Object
ODSO	0WM_DS05	ODSO	0WM_DS04	Activate data in DataStore Object
ODSO	0WM_DS18	ODSO	0WM_DS12	Activate data in DataStore Object
ODSO	0WM_DS04	IOBJ	0WM_AAPTIO	Activate data in InfoObject (see 8.2)
ODSO	0WM_DS02	CUBE	0WM_C01	
ODSO	0WM_DS03	CUBE	0WM_C02	
ODSO	0WM_DS04	CUBE	0WM_C04	
ODSO	0WM_DS05	CUBE	0WM_C05	
ODSO	0WM_DS07	CUBE	0WM_C07	
ODSO	0WM_DS09	CUBE	0WM_C09	
ODSO	0WM_DS12	CUBE	0WM_C12	
ODSO	0WM_DS13	CUBE	0WM_C13	
ODSO	0WM_DS15	CUBE	0WM_C16	
ODSO	0WM_DS18	CUBE	0WM_C19	
CUBE	0WM_C09	CUBE	0WM_C10	
CUBE	0WM_C12	CUBE	0WM_C21	

**For Further Information**

[Data Transfer Process \(SAP Documentation\)](#)

[Creating Data Transfer Processes \(SAP Documentation\)](#)

[Processing Modes of Data Transfer Processes \(SAP Documentation\)](#)

## 10. Delta Upload of Application Data to BW

### 10.1 Create and Execute InfoPackage

#### Use

For the continuous upload of the data you create when you use EWM you need an InfoPackage for each DataSource.

#### Prerequisites

You have executed the initial upload of the application data (see section 9)

#### Procedure

1. In BW start the *Data Warehousing Workbench* (RSA1). In the tree navigate to *Modeling* -> *DataSources*.
2. Press the button *Choose Source System* and choose your source system.
3. Open node *BW DataSources (0BW\_DATASOURCES)* -> *Warehouse Management (OWM)*



The following section describes the procedure on the example of DataSource `OWM_DLVI_IN`. The steps are similar for all DataSources listed in table below.

4. In the context menu for the DataSource *Inbound Delivery Items* `OWM_DLVI_IN` choose *Create InfoPackage*.
5. The system sends a pop-up. Enter `OWM_DLVI_IN Delta Upload` as *InfoPackage Description* and press button *Save*.
6. On tab page *Data Selection* enter a range for the warehouse number if you want to restrict the selection. If you want extract data for all warehouse numbers you do not need to enter anything.
7. On tab pages *Extraction*, *Processing* and *Data Targets* do not change anything.
8. On tab page *Update* set the *Update Mode* to *Delta Update*.
9. On tab page *Schedule* choose *Start Data Load Immediately*.
10. You can press button *Monitor* (F6) later to check the result of your extraction.

Repeat steps 4-10 for the remaining DataSources (see table below).

**Table: DataSources for delta upload**

Technical Name	Description
OWM_DLVI_IN	Inbound Delivery Items
OWM_DLVI_OUT	Outbound Delivery Items
OWM_EWL	Executed Workload
OWM_EXCCODE	Exceptions
OWM_MS_RESULT	Measurement Service Results
OWM_PL_DLVI	Delivery-Item-Related Execution Data
OWM_POD	Proof Of Delivery
OWM_TU	Transportation Units
OWM_VAS	Value-Added Service
OWM_WO	Warehouse Orders
OWM_WT_WO	Warehouse Tasks

### For Further Information

[InfoPackage \(SAP Documentation\)](#)

[Creating InfoPackages \(SAP Documentation\)](#)

[Procedure for SAP Systems \(SAP Documentation\)](#)

[Scheduling InfoPackages \(SAP Documentation\)](#)

## 10.2 Execute Data Transfer Process

### Use

For each delta upload from EWM you need to execute the DTP to transfer your data from the DataStore Object to the InfoCube as described in section 9.2.

#### Important

After the execution of the DTP into a DataStore Object you must activate the application data first before it is available for reporting or for the upload into the InfoProvider. For further information see [Processing Data in the DataStore Object \(SAP Documentation\)](#).

### Prerequisites

You have created the DTPs for the initial upload of the application data (see section 9.2).

You have created and executed the InfoPackage for the delta upload of application data (see section 10.1).

### Procedure

1. In BW start the *Data Warehousing Workbench (RSA1)*. In the tree navigate to *Modeling -> InfoProvider*
2. In the center screen open the section *Supply Chain Management (OSCM) -> Extended Warehouse Management (OWM)*.
3. Navigate to the first DTP created in section 9.2. You can use the same DTP for the delta upload, too. In the context menu for the DTP choose *Display*.
4. On tab page *Execute* press button *Execute*. The system sends a pop-up. Press button *Yes* to navigate to the request monitor.
5. Check the result. Press button *Refresh Request* when necessary.

Repeat steps 3 to 5 for all other DTPs created for the initial upload of the application data.

## 11. Full Upload of Application Data to BW

### 11.1 Create and Execute InfoPackage

#### Use

It might happen that you have some application data that has the character of master data but that is changed very often. In this case it might be the best solution to upload this kind of data in a snapshot mode. That means that you need - similar to the master data - an InfoPackage for a full upload but you execute it regularly, for example, daily.

In EWM there is such application data namely storage bins and stocks. This procedure describes how to upload bins and stocks in a full upload mode.

#### Prerequisites

You have replicated the DataSources for the application data (see section 5.2.2).

You have activated the InfoObjects (see section 6.1).

You have performed the full upload of the master data (see section 8)

#### Procedure

1. In BW start the *Data Warehousing Workbench* (RSA1). In the tree navigate to *Modeling* -> *DataSources*.
2. Press the button *Choose Source System* and choose your source system.
3. Open node *BW DataSources (OBW\_DATASOURCES)* -> *Warehouse Management (OWM)*.



The following section describes the procedure on the example of DataSource `OWM_BIN_FULL`. The steps are similar for all DataSources listed in table below.

4. In the context menu for the DataSource `OWM_BIN_FULL` choose *Create InfoPackage*.
5. The system sends a pop-up. Enter `OWM_BIN_FULL Full Upload` as *InfoPackage Description* and press button *Save*.
6. On tab page *Data Selection* enter a range for the warehouse number if you want to restrict the selection. If you want extract data for all warehouse numbers you do not need to enter anything.
7. On tab pages *Extraction* and *Processing* do not change anything.
8. On tab page *Update* check that the *Update Mode* is set to *Full Update*. This is done automatically as the DataSource is only prepared for a full upload.
9. On tab page *Schedule* choose *Start Data Load Immediately*.
10. You can press button *Monitor* (F6) later to check the result of your extraction.

Repeat steps 4 to 10 for the remaining DataSources (see table below).

**Table: DataSources for full upload (application data)**

Technical Name	Description
OWM_BIN_FULL	Storage Bins Full Upload
OWM_STOCK	Stocks

#### For Further Information

[InfoPackage \(SAP Documentation\)](#)

[Creating InfoPackages \(SAP Documentation\)](#)

[Procedure for SAP Systems \(SAP Library - Data Warehouse Management\)](#)

[Scheduling InfoPackages \(SAP Documentation\)](#)

## 11.2 Create and Execute Data Transfer Process

### Use

A data transfer process (DTP) is an object that determines how data is transferred between two persistent objects in BW. In this section you use the DTP to transfer data within BW from the PSA to the EWM application data in BW.

#### Important

After the execution of the DTP into a DataStore Object you must activate the application data first before it is available for reporting or for the upload into the InfoProvider. For further information see [Processing Data in the DataStore Object \(SAP Documentation\)](#).

### Prerequisites

You have created and executed the InfoPackages for the full upload of the application data (see section 11.18.1)

### Procedure

1. In BW start the *Data Warehousing Workbench (RSA1)*. In the tree navigate to *Modeling -> InfoProvider*
2. In the center screen open the section *Supply Chain Management (OSCM) -> Extended Warehouse Management (OWM)*

#### Note

The following section describes the procedure on the example of DataStore Object `OWM_DS11`. The steps are similar for all To-InfoObjects listed in table below.

3. In the context menu for the DataStore Object `OWM_DS11` choose *Create Data Transfer Process*.
4. The system sends a pop-up. Enter the required data:

#### Example

Data Transfer Proc.	<text will be generated by system>
DTP Type	<b>Standard (Can Be Scheduled)</b>
Source of DTP	
Object Type	<b>DataSource</b>
DataSource	<b>OWM_BIN_FULL</b>
Source System	<b>EWMCLNT001</b>

Press button *Continue*.

5. On tab pages *Extraction*, *Update* and *Execute* use default settings.
6. Activate the DTP.
7. On tab page *Execute* press button *Execute*. The system sends a pop-up. Press button *Yes* to navigate to the request monitor.
8. Check the result. Press button *Refresh Request* when necessary.

Repeat steps 3 to 8 for the remaining To-InfoObjects (see table below).

**Table: DTPs for EWM-related objects**

From InfoObject Type	From-InfoObject	To InfoObject Type	To-InfoObject	Remarks
RSDS	OWM_BIN_FULL	ODSO	OWM_DS11	Activate data in DataStore Object
RSDS	OWM_STOCK	ODSO	OWM_DS17	Activate data in DataStore Object
ODSO	OWM_DS17	ODSO	OWM_DS14	Activate data in DataStore Object
ODSO	OWM_DS11	CUBE	OWM_C11	

From InfoObject Type	From-InfoObject	To InfoObject Type	To-InfoObject	Remarks
ODSO	0WM_DS14	CUBE	0WM_C14	

**For Further Information**

[Data Transfer Process \(SAP Documentation\)](#)

[Creating Data Transfer Processes \(SAP Documentation\)](#)

[Processing Modes of Data Transfer Processes \(SAP Documentation\)](#)

## 12. Process Chains

### Use

You can use process chains to automate daily task in the BW system. Such daily Tasks are, for example, the scheduling of InfoPackages, and triggering of data transfer processes into the data targets.

### Prerequisites

You have created all relevant InfoPackages and DTPs (see sections 10 and 11).

### Procedure

1. In BW start the *Data Warehousing Workbench* (RSA1). In the tree navigate to *Administration -> Process Chains*.

If the system requests you to choose between *Network* and *Tree Display*, choose *Network Display*.

2. Press button *Create* (F5). The system sends a pop-up *New Process Chain*. Enter the following data:



#### Example

Process Chain      **Z0WM\_DLVI\_IN\_PC**  
 Long description    **Process Chain Inbound Delivery Items**

Confirm your input.

3. The system sends a pop-up *Insert Start Process*. Press button *Create*. The system sends another pop-up *Start Process*. Enter the following data:



#### Example

Process Variants    **Z0WM\_DLVI\_IN\_PC\_START**  
 Long description    **Start Process Inbound Delivery Items**

Press button *Continue* (Enter).

The system shows the screen *Maintain Start Process*. Press button *Change Selections* to get the standard pop-up to schedule a background job. Enter the required start time and save the data to get back. Back on screen *Maintain Start Process* press button *Save* then button *Back* (F3).

You get back to pop-up *Insert Start Process*. Press button *Continue* (Enter).

The system displays the process chain that contains just the start process in the right part of the modeling workbench.

4. Add the InfoPackage:  
 In the middle section press button *Process Types*. Open node *Load Process and Post-Processing*. Double-click on node *Execute InfoPackage*. The system sends a pop-up *Insert Execute InfoPackage*.



#### Example

In field *Load Data* use the F4 help to find the InfoPackage you have created in section 10.1, for example, *0WM\_DLVI\_IN Delta Upload* for logical system **EWMLNT001**.

On the pop-up press *Continue*. The system adds three boxes on the right screen for the display of the process chain: The execution of the InfoPackage, a data transfer process for the upload to the DataStore Object and for the activation of the data in the DataStore Object. These boxes are called process variants.

5. Connect the start process with the execution of the InfoPackage. You can do this by clicking on the start process (box with header *Start* and the symbol for the start process), then hold the left mouse button and draw a line to the execution of the InfoPackage (header *Load Data*)



You can move around the boxes for the process variants manually or you can get an automatic alignment when you press button *Checking View*.

You can toggle the display via the menu *Goto -> Planning View / Goto -> Checking View*.

You can also switch between *Tree* and *Network Display* via the menu *Settings -> Tree Display / Settings -> Network Display*

6. Add the DTP (from DataStore Object to InfoProvider):

In the middle section open node *Load Process and Post-Processing*. Double-click on node *Data Transfer Process*. The system sends a pop-up *Insert Data Transfer Process*.



Use the F4 help to find the DTP you have created in section 10.2 or 11.2, for example, `0WM_DS13 -> 0WM_C13`.

On the pop-up press *Continue*. Confirm any warning message. The system adds a box *Data Transfer Process* on the right screen for the display of the process chain. Connect this box with the box *DataStore Data*.

7. Press button *Checking View*. All elements of your process chain should be displayed as error-free.
8. Press button *Activate*.
9. Schedule your process chain. Press button *Schedule* (F8). The system sends a pop-up *Server for Scheduling*. Press button *Continue* (Enter). The system sends another pop-up *Select Priority*. Choose *Standard Priority C*.
10. The system starts you process chain at the time you entered for your start process. To monitor your process chain press button *Log View* (Shift + F1). Once the system has executed the process chain, it displays the overall status of the execution. When you double-click on the process in the process chain, you can display the protocols for all steps.
11. Create all other process chains you need for your data flows.  
To determine the objects that you need to connect you can use the *Data Warehousing Workbench* (RSA1). In the tree navigate to *Modeling -> DataSources -> InfoProvider*. Right-click on the respective InfoCube or DataStore Object and choose *Display Data Flow* in the context menu. On the pop-up choose *Upwards and Downward*. On top of the data flow display you can find a button *Technical Name On/Off*. Push the button to display the technical names so that you can identify the objects when you create your process chain.

You can also find the data flows and a list of the respective technical objects in the appendix.

### For Further Information

[Process Chain Maintenance \(SAP Documentation\)](#)

[Creating Process Chains \(SAP Documentation\)](#)

[Display-Maintenance of Process Chain Attributes \(SAP Documentation\)](#)

[Monitoring Process Chain Runs \(SAP Documentation\)](#)



# 13. Appendix

## Appendix A – Data Flow Exceptions

Aggregated Exceptions		
Data Flow	Technical Information	
	<b>Queries</b>	
	OWM_MP04_Q0001	
	OWM_MP04_Q0002	OTPL_0WM_MP04_Q0002
	<b>MultiProvider</b>	<b>InfoCube</b>
	OWM_MP04	OWM_C02
	<b>DataStore Object</b>	<b>DataSource</b>
	OWM_DS03	OWM_EXCCODE
	Extraction	
	Standard pull-enabled DataSource, initial and delta upload	
	Process Chain	
Simple process chain as described in section 12, no dependencies		

## Appendix B - Data Flow Labor Management

Executed Workload																					
Data Flow	Technical Information																				
<p>The diagram illustrates the data flow process. At the bottom, a box labeled 'B3TCLNT001 B3T Client 001' has an upward arrow pointing to a box labeled 'OWM_EWL Executed Workload'. From 'OWM_EWL', an upward arrow points to a box labeled 'OWM_DS02 Executed Workload'. From 'OWM_DS02', an upward arrow points to a box labeled 'OWM_MP02 Executed Workload'. The 'OWM_MP02' box is highlighted in yellow.</p>	<table border="1"> <thead> <tr> <th>Queries</th> <th>BEx WebTemplates</th> </tr> </thead> <tbody> <tr> <td>OWM_MP02_Q0001</td> <td></td> </tr> <tr> <th>MultiProvider</th> <td></td> </tr> <tr> <td>OWM_MP02</td> <td></td> </tr> <tr> <th>DataStore Object</th> <th>DataSource</th> </tr> <tr> <td>OWM_DS02</td> <td>OWM_EWL</td> </tr> <tr> <th colspan="2">Extraction</th> </tr> <tr> <td colspan="2">Standard pull-enabled DataSource, initial and delta upload</td> </tr> <tr> <th colspan="2">Process Chain</th> </tr> <tr> <td colspan="2">Simple process chain as described in section 12, no dependencies</td> </tr> </tbody> </table>	Queries	BEx WebTemplates	OWM_MP02_Q0001		MultiProvider		OWM_MP02		DataStore Object	DataSource	OWM_DS02	OWM_EWL	Extraction		Standard pull-enabled DataSource, initial and delta upload		Process Chain		Simple process chain as described in section 12, no dependencies	
	Queries	BEx WebTemplates																			
	OWM_MP02_Q0001																				
	MultiProvider																				
	OWM_MP02																				
	DataStore Object	DataSource																			
	OWM_DS02	OWM_EWL																			
	Extraction																				
	Standard pull-enabled DataSource, initial and delta upload																				
	Process Chain																				
Simple process chain as described in section 12, no dependencies																					

Aggregated Executed Workload																									
Data Flow	Technical Information																								
<p>The diagram illustrates the data flow for Aggregated Executed Workload. It starts with the B3T Client 001 (B3TCLNT001) at the bottom, which feeds into the OWM_EWL (Executed Workload) block. This block then feeds into the OWM_DS02 (Executed Workload) block. The OWM_DS02 block feeds into the OWM_C01 (Aggregated Executed Workload) block. Finally, the OWM_C01 block feeds into the OWM_MP03 (Aggregated Executed Workload) block at the top. Green double-headed arrows indicate bidirectional data flow between OWM_DS02 and OWM_EWL, and between OWM_C01 and OWM_DS02.</p>	<table border="1"> <thead> <tr> <th>Queries</th> <th>BEx WebTemplates</th> </tr> </thead> <tbody> <tr> <td>OWM_MP03_Q0001</td> <td></td> </tr> <tr> <td>OWM_MP03_Q0002</td> <td></td> </tr> <tr> <td>OWM_MP03_Q0003</td> <td></td> </tr> <tr> <th>MultiProvider</th> <th>InfoCube</th> </tr> <tr> <td>OWM_MP03</td> <td>OWM_C01</td> </tr> <tr> <th>DataStore Object</th> <th>DataSource</th> </tr> <tr> <td>OWM_DS02</td> <td>OWM_EWL</td> </tr> <tr> <th colspan="2">Extraction</th> </tr> <tr> <td colspan="2">Standard pull-enabled DataSource, initial and delta upload (see also Executed Workload)</td> </tr> <tr> <th colspan="2">Process Chain</th> </tr> <tr> <td colspan="2">Simple process chain as described in section 12, no dependencies</td> </tr> </tbody> </table>	Queries	BEx WebTemplates	OWM_MP03_Q0001		OWM_MP03_Q0002		OWM_MP03_Q0003		MultiProvider	InfoCube	OWM_MP03	OWM_C01	DataStore Object	DataSource	OWM_DS02	OWM_EWL	Extraction		Standard pull-enabled DataSource, initial and delta upload (see also Executed Workload)		Process Chain		Simple process chain as described in section 12, no dependencies	
	Queries	BEx WebTemplates																							
	OWM_MP03_Q0001																								
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	MultiProvider	InfoCube																							
	OWM_MP03	OWM_C01																							
	DataStore Object	DataSource																							
	OWM_DS02	OWM_EWL																							
	Extraction																								
Standard pull-enabled DataSource, initial and delta upload (see also Executed Workload)																									
Process Chain																									
Simple process chain as described in section 12, no dependencies																									

Results Measurement Services		
Data Flow	Technical Information	
	<b>Queries</b>	<b>BEx WebTemplates</b>
	OWM_MP01_Q0001	
	<b>MultiProvider</b>	
	OWM_MP01	
	<b>DataStore Object</b>	<b>DataSource</b>
	OWM_DS01	OWM_MS_RESULT
	<b>Extraction</b>	
	Standard pull-enabled DataSource, initial and delta upload	
	<b>Process Chain</b>	
	Simple process chain as described in section 12, no dependencies	

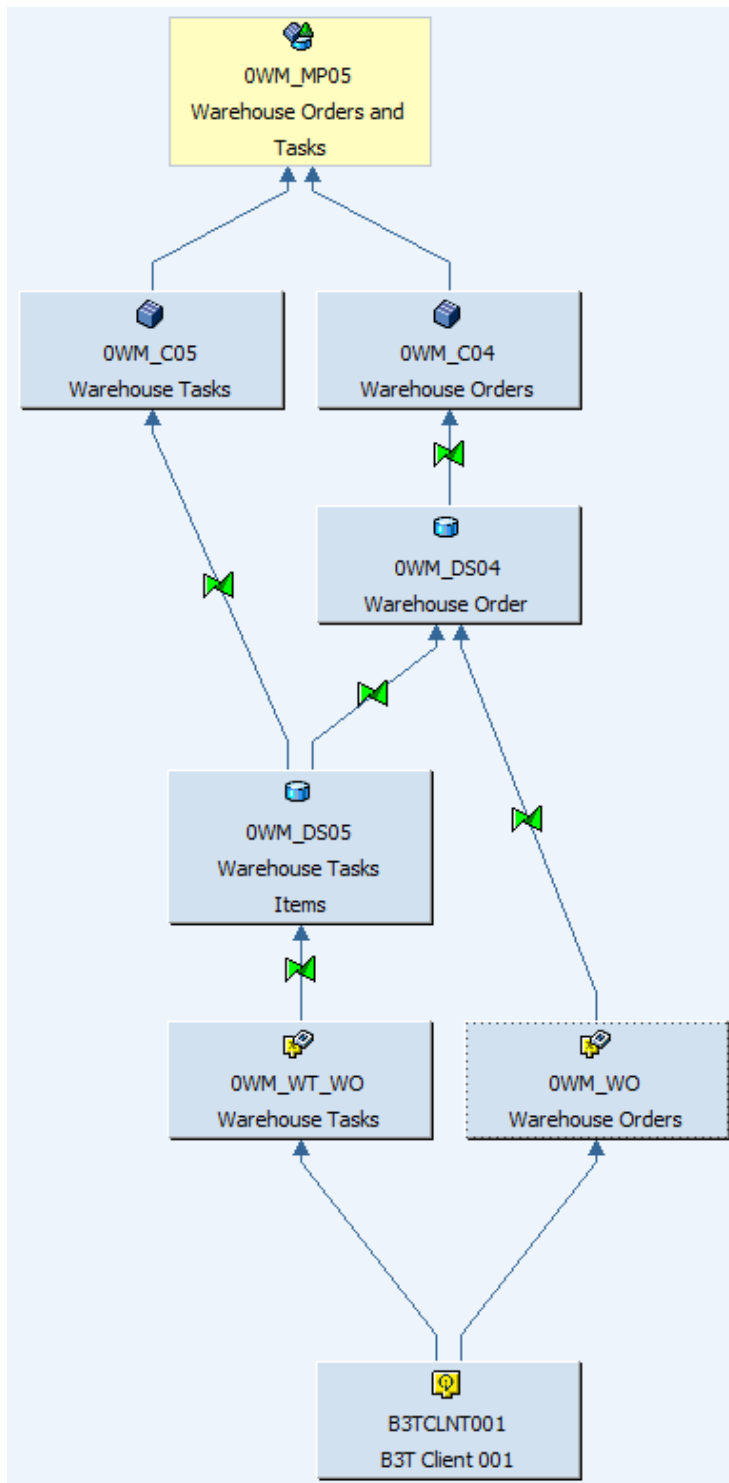
Aggregation for Planning																									
Data Flow	Technical Information																								
	<table border="1"> <thead> <tr> <th>Queries</th> <th>BEx WebTemplates</th> </tr> </thead> <tbody> <tr> <td>OWM_A10_Q001</td> <td></td> </tr> <tr> <td>OWM_A10_Q002</td> <td></td> </tr> <tr> <th>InfoCubes</th> <th>Aggregation Level</th> </tr> <tr> <td>OWM_C10</td> <td>OWM_A10</td> </tr> <tr> <td>OWM_C09</td> <td></td> </tr> <tr> <th>DataStore Object</th> <th>DataSource</th> </tr> <tr> <td>OWM_DS09</td> <td>OWM_PL_DLVI</td> </tr> <tr> <th colspan="2">Extraction</th> </tr> <tr> <td colspan="2">Standard pull-enabled DataSource, initial and delta upload</td> </tr> <tr> <th colspan="2">Process Chain</th> </tr> <tr> <td colspan="2">Simple process chain as described in section 12, no dependencies</td> </tr> </tbody> </table>	Queries	BEx WebTemplates	OWM_A10_Q001		OWM_A10_Q002		InfoCubes	Aggregation Level	OWM_C10	OWM_A10	OWM_C09		DataStore Object	DataSource	OWM_DS09	OWM_PL_DLVI	Extraction		Standard pull-enabled DataSource, initial and delta upload		Process Chain		Simple process chain as described in section 12, no dependencies	
	Queries	BEx WebTemplates																							
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	OWM_A10_Q002																								
	InfoCubes	Aggregation Level																							
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	OWM_C09																								
	DataStore Object	DataSource																							
	OWM_DS09	OWM_PL_DLVI																							
	Extraction																								
Standard pull-enabled DataSource, initial and delta upload																									
Process Chain																									
Simple process chain as described in section 12, no dependencies																									

### Appendix C – Data Flow Warehouse Task and Order Related KPIs

Warehouse Orders																													
Data Flow	Technical Information																												
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	Process Chain																												
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**Warehouse Orders and Tasks**

**Data Flow**



**Technical Information**

**List of Objects**

Queries	BEx WebTemplates	
OWM_MP05_Q0001		

0WM_MP05_Q0002		
0WM_MP05_Q0003	0TPL_0WM_MP05_Q0003	
0WM_MP05_Q0004	0TPL_0WM_MP05_Q0004	
0WM_MP05_Q0005	0TPL_0WM_MP05_Q0005	
0WM_MP05_Q0006	0TPL_0WM_MP05_Q0006	
0WM_MP05_Q0007	0TPL_0WM_MP05_Q0007	
0WM_MP05_Q0008	0TPL_0WM_MP05_Q0008	
<b>MultiProvider</b>	<b>InfoCube</b>	<b>Characteristic</b>
0WM_MP05	0WM_C04	0WM_AAPTIO
	0WM_C05	
<b>DataStore Object</b>	<b>DataSource</b>	
0WM_DS04	0WM_WT_WO	
0WM_DS05	0WM_WO	
<b>Extraction</b>		
0WM_WO is a push-enabled DataSource, be aware of necessary steps described in section 7.2, initial and delta upload		
0WM_WT_WO is a standard pull-enabled DataSource, initial and delta extraction		
<b>Process Chain</b>		
<p>The system updates info object 0WM_AAPTIO (Average Processing Time of WT) from DataStore Object 0WM_DS04. In the transformation from DataStore Object 0WM_DS05 to InfoCube 0WM_C05 the system uses this information. For this reason ensure that the update to 0WM_AAPTIO (not shown in the figure) has been executed before the update of InfoCube 0WM_C05</p> <p>So create a process chain with the following sequence (activation steps and DB statistics not listed):</p> <ul style="list-style-type: none"> <li>• Delta InfoPackage for 0WM_WO</li> <li>• Delta InfoPackage for 0WM_WT_WO</li> <li>• DTP from 0WM_WO to 0WM_DS04</li> <li>• DTP from 0WM_WT_WO to 0WM_DS05</li> <li>• DTP from 0WM_DS05 to 0WM_DS04</li> <li>• DTP from 0WM_DS04 to 0WM_AAPTIO</li> <li>• DTP from 0WM_DS04 to 0WM_C04</li> <li>• DTP from 0WM_DS05 to 0WM_C05</li> </ul>		



## Appendix D – Data Flow Stock Related KPIs

Aggregated Stocks																									
Data Flow	Technical Information																								
<p>The diagram illustrates the data flow for Aggregated Stocks. It starts with the B3T Client 001 (B3TCLNT001) at the bottom, which feeds into OWM_STOCK (Stocks). This then flows through OWM_DS17 (Stocks) and OWM_DS14 (Aggregated Stocks) via extraction steps (indicated by green double-headed arrows). The data then moves through OWM_C14 (Aggregated Stocks) and finally to OWM_MP14 (Aggregated Stocks) at the top. OWM_DS14 is shown in a dashed box, indicating it is a standard pull-enabled DataSource.</p>	<table border="1"> <thead> <tr> <th>Queries</th> <th>BEx WebTemplates</th> </tr> </thead> <tbody> <tr> <td>OWM_MP14_Q0001</td> <td>OTPL_0WM_MP14_Q0001</td> </tr> <tr> <td>OWM_MP14_Q0001_DB</td> <td></td> </tr> <tr> <th>MultiProvider</th> <th>InfoCube</th> </tr> <tr> <td>OWM_MP14</td> <td>OWM_C14</td> </tr> <tr> <th>DataStore Object</th> <th>DataSource</th> </tr> <tr> <td>OWM_DS14</td> <td>OWM_STOCK</td> </tr> <tr> <td>OWM_DS17</td> <td></td> </tr> <tr> <th colspan="2">Extraction</th> </tr> <tr> <td colspan="2">Standard pull-enabled DataSource, full upload (snapshot) of the stock. Run the extraction maximum once a day. You cannot generate data for the past.</td> </tr> <tr> <th colspan="2">Process Chain</th> </tr> <tr> <td colspan="2">Simple process chain as described in section 12, no dependencies</td> </tr> </tbody> </table>	Queries	BEx WebTemplates	OWM_MP14_Q0001	OTPL_0WM_MP14_Q0001	OWM_MP14_Q0001_DB		MultiProvider	InfoCube	OWM_MP14	OWM_C14	DataStore Object	DataSource	OWM_DS14	OWM_STOCK	OWM_DS17		Extraction		Standard pull-enabled DataSource, full upload (snapshot) of the stock. Run the extraction maximum once a day. You cannot generate data for the past.		Process Chain		Simple process chain as described in section 12, no dependencies	
	Queries	BEx WebTemplates																							
	OWM_MP14_Q0001	OTPL_0WM_MP14_Q0001																							
	OWM_MP14_Q0001_DB																								
	MultiProvider	InfoCube																							
	OWM_MP14	OWM_C14																							
	DataStore Object	DataSource																							
	OWM_DS14	OWM_STOCK																							
	OWM_DS17																								
	Extraction																								
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Process Chain																									
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Storage Bins Full Upload											
Data Flow	Technical Information										
	<table border="1"> <thead> <tr> <th>Queries</th> <th>BEx WebTemplates</th> </tr> </thead> <tbody> <tr> <td>OWM_MP11_Q0001</td> <td>0TPL_0WM_MP11_Q0001</td> </tr> <tr> <td>OWM_MP11_Q0001_DB</td> <td></td> </tr> <tr> <td>OWM_MP11_Q0002</td> <td>0TPL_0WM_MP11_Q0002</td> </tr> <tr> <td>OWM_MP11_Q0003</td> <td>0TPL_0WM_MP11_Q0003</td> </tr> </tbody> </table>	Queries	BEx WebTemplates	OWM_MP11_Q0001	0TPL_0WM_MP11_Q0001	OWM_MP11_Q0001_DB		OWM_MP11_Q0002	0TPL_0WM_MP11_Q0002	OWM_MP11_Q0003	0TPL_0WM_MP11_Q0003
	Queries	BEx WebTemplates									
	OWM_MP11_Q0001	0TPL_0WM_MP11_Q0001									
	OWM_MP11_Q0001_DB										
	OWM_MP11_Q0002	0TPL_0WM_MP11_Q0002									
	OWM_MP11_Q0003	0TPL_0WM_MP11_Q0003									
	<table border="1"> <thead> <tr> <th>MultiProvider</th> <th>InfoCube</th> </tr> </thead> <tbody> <tr> <td>OWM_MP11</td> <td>OWM_C11</td> </tr> </tbody> </table>	MultiProvider	InfoCube	OWM_MP11	OWM_C11						
	MultiProvider	InfoCube									
	OWM_MP11	OWM_C11									
	<table border="1"> <thead> <tr> <th>DataStore Object</th> <th>DataSource</th> </tr> </thead> <tbody> <tr> <td>OWM_DS11</td> <td>OWM_BIN_FULL</td> </tr> </tbody> </table>	DataStore Object	DataSource	OWM_DS11	OWM_BIN_FULL						
DataStore Object	DataSource										
OWM_DS11	OWM_BIN_FULL										
<b>Extraction</b> Standard pull-enabled DataSource, full upload (snapshot) of all bins. Run the extraction maximum once a day. You cannot generate data for the past.											
<b>Process Chain</b> Simple process chain as described in section 12, no dependencies											

### Appendix E – Data Flow Delivery Related KPIs

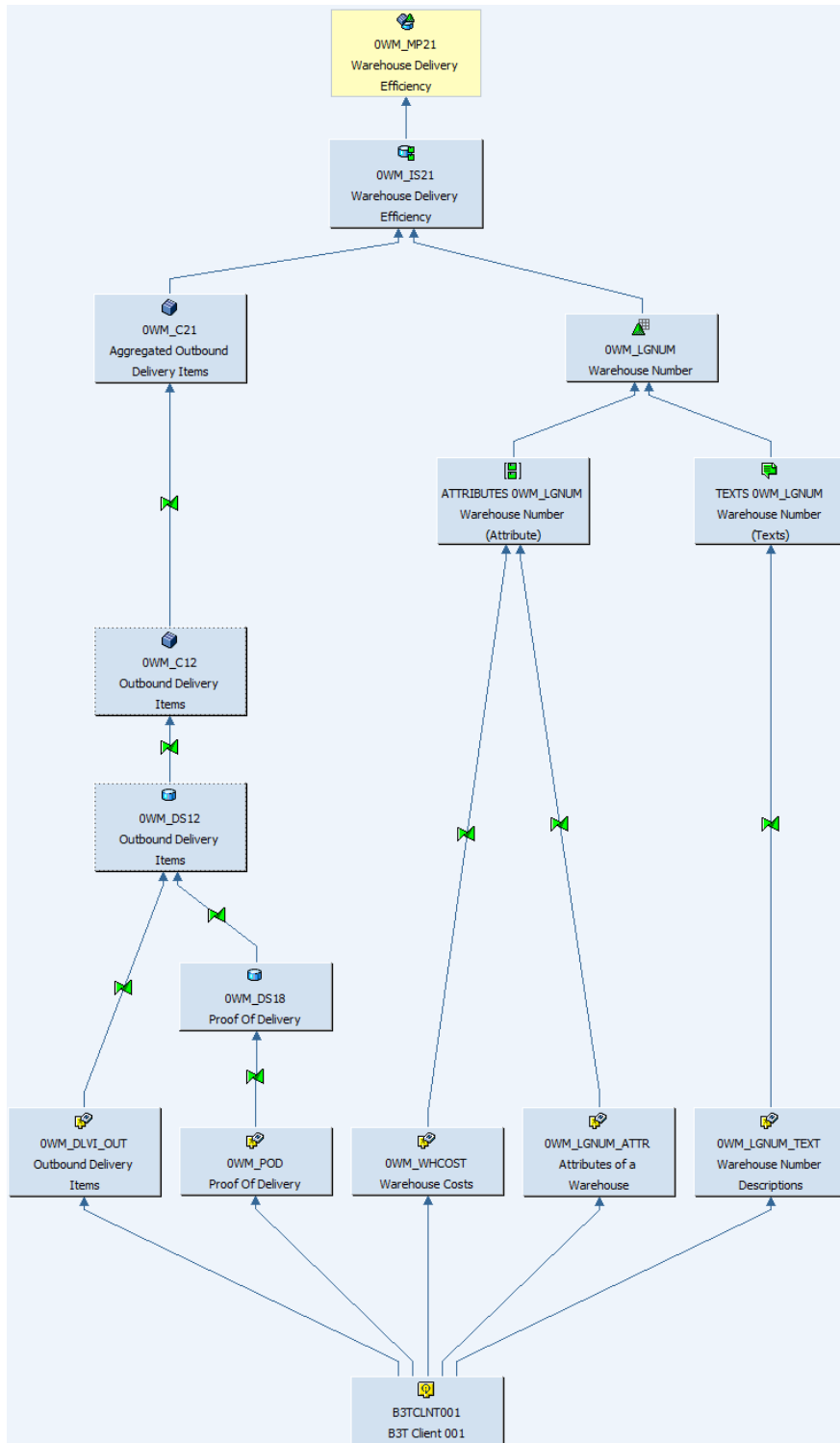
Inbound Delivery Items																							
Data Flow	Technical Information																						
<p>The diagram illustrates a vertical data flow. At the bottom is a box for 'B3TCLNT001 B3T Client 001'. An arrow points up to 'OWM_DLVI_IN Inbound Delivery Items'. Another arrow points up to 'OWM_DS13 Inbound Delivery Items'. A third arrow points up to 'OWM_C13 Inbound Delivery Items'. A final arrow points up to 'OWM_MP13 Inbound Delivery Items' at the top. Each step is represented by a box with a small icon (cube, cylinder, or document) above the text.</p>	<table border="1"> <thead> <tr> <th>Queries</th> <th>BEx WebTemplates</th> </tr> </thead> <tbody> <tr> <td>OWM_MP13_Q0001</td> <td>OTPL_OWM_MP13_Q0001</td> </tr> <tr> <td>OWM_MP13_Q0002</td> <td>OTPL_OWM_MP13_Q0002</td> </tr> <tr> <th>MultiProvider</th> <th>InfoCube</th> </tr> <tr> <td>OWM_MP13</td> <td>OWM_C13</td> </tr> <tr> <th>DataStore Object</th> <th>DataSource</th> </tr> <tr> <td>OWM_DS13</td> <td>OWM_DLVI_IN</td> </tr> <tr> <th colspan="2">Extraction</th> </tr> <tr> <td colspan="2">Standard pull-enabled DataSource, initial and delta upload</td> </tr> <tr> <th colspan="2">Process Chain</th> </tr> <tr> <td colspan="2">Simple process chain as described in section 12, no dependencies</td> </tr> </tbody> </table>	Queries	BEx WebTemplates	OWM_MP13_Q0001	OTPL_OWM_MP13_Q0001	OWM_MP13_Q0002	OTPL_OWM_MP13_Q0002	MultiProvider	InfoCube	OWM_MP13	OWM_C13	DataStore Object	DataSource	OWM_DS13	OWM_DLVI_IN	Extraction		Standard pull-enabled DataSource, initial and delta upload		Process Chain		Simple process chain as described in section 12, no dependencies	
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	OWM_MP13_Q0002	OTPL_OWM_MP13_Q0002																					
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Outbound Delivery Items																											
Data Flow	Technical Information																										
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	Queries	BEx WebTemplates																									
	OWM_MP12_Q0001	OTPL_OWM_MP12_Q0001																									
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	OWM_MP12	OWM_C12																									
	DataStore Objects	DataSources																									
OWM_DS12	OWM_DLVI_OUT																										
OWM_DS18	OWM_POD																										
	<p><b>Extraction</b></p> <p>Standard pull-enabled DataSources, initial and delta extraction.</p> <p>You need to create two separate PSAs including the respective DTPs to load outbound delivery items and PoDs.</p> <p>In the EWM system, the Proof-of-Delivery (PoD) will be created some time after the outbound delivery item is completed. Independent of order of the creation of the PoD and the completion of the outbound delivery in the EWM system, the BW system is able to handle the data independent of the order in which they are extracted.</p> <p>If you do not use the Proof-of-Delivery in EWM, it is sufficient to use DataSource OWM_DLVI_OUT and DataStore Object OWM_DS12.</p>																										
	<p><b>Process Chain</b></p> <p>Create two separate process chains from the DataSource to the InfoCube. Due to the design of the data model and the transformations, the extraction and therefore the start process are completely independent.</p>																										

Proof of Delivery																					
Data Flow	Technical Information																				
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	Queries	BEx WebTemplates																			
	OWM_MP19_Q0001	OTPL_0WM_MP19_Q0001																			
	MultiProvider	InfoCube																			
	OWM_MP19	OWM_C19																			
	DataStore Object	DataSource																			
	OWM_DS18	OWM_POD																			
	Extraction																				
	Standard pull-enabled DataSource, initial and delta upload																				
	Process Chain																				
Simple process chain as described in section 12, no dependencies																					

**Warehouse Efficiency**

**Data Flow**



**Technical Information**

**List of Objects**

Queries	BEx WebTemplates	
OWM_MP21_Q0001	OTPL_OWM_MP21_Q0001	

0WM_MP21_Q0001_DB		
<b>MultiProvider</b>	<b>InfoCubes</b>	<b>InfoSet</b>
0WM_MP21	0WM_C21	0WM_IS21
	0WM_C12	
<b>DataStore Objects</b> (see Outbound Delivery Items)	<b>DataSources</b> (see Outbound Delivery Items)	
0WM_DS12	0WM_DLVI_OUT	
<b>Master Data</b>		
DataSource 0WM_WHCOST for the time-dependent attributes of the warehouse number (InfoObject 0WM_LGNUM) is required		
<b>Extraction</b>		
The extraction for the outbound delivery items works as described for this object. The DataSource 0WM_POD and the DataStore Object 0WM_DS18 that are shown in the overview as part of the technical data model are not required for the Warehouse Delivery Efficiency KPI.		
<b>Process Chain</b>		
<p>Create a process chains from DataSource 0WM_DLVI_OUT to the InfoCube 0WM_C21.</p> <p>Create a separate process chain for the regular upload of the warehouse costs. Schedule the process for warehouse costs depending on the frequency of updates in your EWM system (daily/ weekly/ monthly/ yearly)</p>		

### Appendix E – Data Flow Transportation Unit Related KPIs

Transportation Units		
Data Flow	Technical Information	
	<b>Queries</b>	<b>BEx WebTemplates</b>
	OWM_MP16_Q0001	OTPL_OWM_MP16_Q0001
	OWM_MP16_Q0002	OTPL_OWM_MP16_Q0002
	<b>MultiProvider</b>	<b>InfoCube</b>
	OWM_MP16	OWM_C16
	<b>DataStore Object</b>	<b>DataSource</b>
	OWM_DS15	OWM_TU
	<b>Extraction</b>	
	Standard pull-enabled DataSource, initial and delta upload	
	<b>Process Chain</b>	
	Simple process chain as described in section 12, no dependencies	



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