

# Warehouse Management (WM)

This document is intended to help instructors understand the case study process and manage the learning process in and outside the classroom. The main focus lies on prerequisites and common tasks such as testing and trouble-shooting.

## Product

SAP S/4HANA 2020  
Global Bike

Fiori 3.0

## Level

Instructor

## Focus

Warehouse Management

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## Version

4.1

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## MOTIVATION

Theoretical lectures explain concepts, principles, and theories through reading and discussion. They, therefore, enable students to acquire knowledge and gain theoretical insights.

In contrast, case studies allow them to develop their abilities to analyze enterprise problems, learn and develop possible solutions, and make sound decisions.

The main objective of the Global Bike case studies in general is for students to understand the concept of integration. These descriptive and explanatory case studies will allow students to understand the importance and the advantages of integrating enterprise areas using an S/4HANA system.

The main goal of this document is to help instructors prepare the SAP system for the Warehouse Management case study process and to support them trouble-shoot problems that might occur during the course.

Beside technical and didactic prerequisites, the lecturer notes list SAP transactions for testing and correcting student results in the SAP system. In addition, this document describes common problems and explains their reason and solution.

## Prerequisites

**Note** Before using this case study in your classroom please make sure that all technical (month-end closing, user management etc.) and didactic prerequisites are fulfilled. Such prerequisites are briefly pointed out below. Detailed documentation can be displayed at and downloaded from the *Learning Hub of SAP UA* or the *UCC web sites*.

### Technical Prerequisites

The Warehouse Management case study is based on a standard SAP S/4HANA client with the current Global Bike dataset. Before processing the case study on your own or with your students all general setting should be checked.

This includes **month-end closing** in Materials Management (transaction **MMPV**) which is documented on the UCC web sites.

Month-end closing in  
MM  
**MMPV**

Note: With the current version of the Global Bike client a **year-end closing** is not necessary, because it has already been automated or because it is not needed for the process described in the curriculum material.

Year-end closing

**User accounts** in the SAP system need to be created or unlocked.

User management

These student user accounts should end with a three-digit numeric number (e.g. LEARN-001, LEARN-002 etc.). This number will be represented by ### in the case study and helps differentiate customer accounts, products etc.

In an SAP S/4HANA Global Bike client already exist 1000 user accounts from **LEARN-000** to **LEARN-999**. These users need to be unlocked. The initial password for each LEARN-### account is set to **tlestart**.

LEARN-000 to  
LEARN-999

tlestart

Transaction **ZUSR** was developed in the Global Bike client in order to mass maintain SAP user accounts. For a detailed description of this and SAP standard transactions for user management (**SU01** and **SU10**) please refer to the *lecturer notes "User Management"* (see: current Global Bike curriculum → chapter 99 – Instructor Tools).

ZUSR

SU01  
SU10

All LEARN-### user accounts have been assigned to the role **Z\_UCC\_GBI\_SCC** and have authorizations to use all applicative transactions in the SAP S/4HANA system. The role allows access to all transactions necessary for Global Bike exercises and case studies. If you need access to system-critical transactions, i.e. for development purposes, you may assign the composite profile **SAP\_ALL** to your student accounts.

It is useful for the instructor to have a user account available for testing that has the same authorizations as the student accounts. You may use the predefined instructor account **LEARN-000** for this purpose.

Instructor account  
LEARN-000

### Didactic Prerequisites

In order to successfully process this case study, students should be familiar with the **navigation** in SAP systems, especially the SAP Easy Access menu, the SAP transaction concept as well as possible documentation and help options. We highly recommend using the *navigation slides* and the *navigation course* (see: current Global Bike curriculum → chapter 2 – Navigation).

Navigation

In addition, it has been proven beneficial that students have a thorough understanding of the **historic background** and the enterprise structure of the Global Bike concern before they start working on the SAP system. For this purpose we recommend the *case study „Global Bike Group“* (see: current Global Bike curriculum → chapter 3 – Global Bike).

Company background

Because the case study is not based on the exercises, it is not necessary to have processed the WM exercises before you start with the case study. However, it is recommended.

In order to function properly this case study needs a **Global Bike client version** that is equal to or higher than the case study version (see cover page). Please check. If you do not know the client version please use the transaction **ZGBIVERSION** within your SAP S/4HANA system or contact your UCC team.

Global Bike client  
version

### Global Feedback

Do you have any suggestions or feedback about Global Bike? Please send it to our new email-address **gbi@ucc.ovgu.de** which is used to gather feedback globally. All emails will be evaluated by the persons responsible for the curriculum bi-weekly. This way your feedback might influence future releases directly.

Please note that any support requests send to this email-address will be ignored. Please keep using the common support channels for your support requests.



## Student Assessment

**Note** With the app described below you can check and correct master and transactional data that your students have created during your course.

### Global Bike Monitoring Tool (beta)

We are developing a Global Bike Monitor, which is available for the SD case study.

A detailed tutorial for this tool is available in the module *99 Instructor Tools* of the current Global Bike curriculum.

Please keep in mind that this transaction is an additional functionality designed by the UCC Magdeburg and still in development. Therefore, we kindly ask you to send any feedback or detailed error descriptions to the following address: **[gbi@ucc.ovgu.de](mailto:gbi@ucc.ovgu.de)**



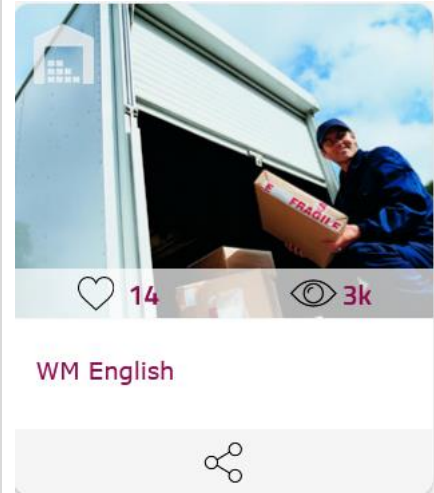
## Learning Snacks WM

**Note** With the Learning Snacks WM you can check your learning success in the module WM.

### What is Learning Snacks?

Learning Snacks offers the possibility to check the knowledge gained during the case studies and exercises by means of small single-choice questions. Depending on the selected module, you can play through a Learning Snacks (WM here). Learning Snacks can be used with or without prior registration. By having your own account, you can create snacks yourself, like other snacks and receive some kind of points for each question you answer correctly.

You can find detailed instructions on Learning Snacks in the module "98 Cross-Module".




## Process Monitoring

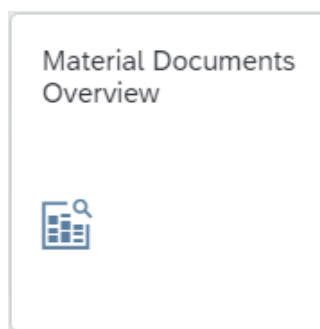
Valid for: WM I, WM II, WM III

**Note** During the case study the SAP system creates documents which are automatically logging all business process steps. These documents rely on master data that were either predefined by the curriculum development team or created by your students.

### Display Document Flow

Document flow

Open the *Material Document Overview* app using the search . You can use the app to find all material documents and jump to subsequent documents.



In the view *Material Documents Overview*, use the field *Material* as the preferred search criterion. Add further criteria as required.

#### Case Study

#### Material

WM I	KPAD1### EPAD1###
WM II	DXTR1###
WM III	PRTR2###

For example, search for WM I documents on knee pads. Open the document to view detailed information.

Standard\* ⌵

Stock Change:\* All ⌵ Plant:  ⌵ Storage Location:  ⌵ Stock Type:  ⌵

Material Document:  ⌵ Material Document Year: =2022 ⌵ Material: Knee Pads (KPA... x ⌵ Posting Date: MM/dd/yyyy - MM/dd/yyyy 📅

Document Date: MM/dd/yyyy - MM/dd/yyyy 📅 Adapt Filters (3) Go

Material Documents (1) ⚙️ 📄 ⌵

Material Document	Material Document Year	Material	Plant	Storage Location	Posting Date	Stock Type
5000000010	2022	Knee Pads (KPAD1000)	DC San Diego (SD00)	Trading Goods (TG00)	04/20/2022 2	Unrestricted-Use Stock (01)

In the material document view, navigate to the process flow area. There you can find further apps for the documents and thus have additional evaluation options.

5000000010 2022 Reverse Related Apps ⌵

General Information Items Process Flow Attachment

Purchasing Document »» Material Document »» Accounting Document

4500000002 OK 2 Item(s) OK 5000000010 OK 5000000001

5000000010 Display Document Flow More Links

## Problem: Review Transfer Orders

Valid for: WM I, WM II, WM III

**Symptom** You would like to check the transfer orders of your participants.

**Reason** The material inventory or the material inventory value seems to be wrong because the confirmation of a transfer order is missing.

**Solution** Check the transfer orders and confirm them if necessary.

### Solution

Use the *Document Overview* app (in the Warehouse Supervisor role) to get an overview of open or confirmed transfer orders.

Warehouse Supervisor

Display Stock Overview    Create Outbound Deliveries From Sales Orders    Change Outbound Delivery    Run Bin Status Report    Display Warehouse Stock

Display Outbound Delivery    Change Warehouse Master Record    **Document overview**    Display Storage Bin    Display Quants

Display storage unit    Display Transfer Order    Manage Product Master Data

In the *Transfer Order: List of Resident Documents* screen, enter **100** as *Warehouse number*. Within the areas *Confirmation status* and *Program parameters* you may filter the transfer orders by status and date.

100

< SAP Transfer Orders: Resident Documents

Save as Variant... More v Exit

\* Warehouse number: 100

Transfer order: to: [icon]

Program Parameters

Only Open Transfer Orders:

Transfer Order Date: to: [icon]

Name of Processor: to: [icon]

Requirement Type: to: [icon]

Requirement Number: to: [icon]

Afterwards please execute the report by pressing F8 or clicking **Execute**.





## Problem: Check the amount of ordered goods

Valid for: WM I, WM II, WM III

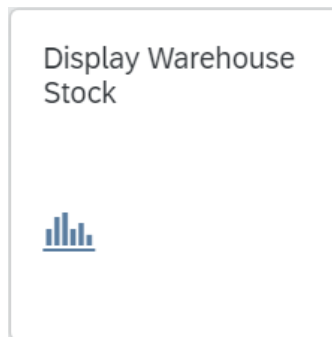
**Symptom** The material inventory or the material inventory value seems to be wrong.

**Reason** Shortage of goods could be an indicator for input or typing errors during the creation of purchase orders.

**Solution** Check if your participants ordered a wrong amount of goods.

### Warehouse Stocks of Material

Use the app Display Warehouse Stock to get an overview of the stock levels, as well as their value, for a specific material.



SD00

In the *Display Warehouse Stocks of Material* screen, enter **SD00** as *Plant* and use the following materials for each case study.

#### Case Study

#### Material

WM I


KPAD1XXX bis KPAD1YYY

WM II

DXTR1XXX bis DXTR1YYY

WM III

PRTR2XXX bis PRTR2YYY

Afterwards please execute the report by pressing F8 or clicking .

## Problem: Missing storage bins

Valid for: WM II, WM III

**Problem** The storage bins STBN-7-### and STBN-9-### don't exist.

**Reason** The storage bins weren't created.

**Solution** Create the storage bins automatically

### Storage Bin Structure for Automatic Creation

Please use the transaction **LS10** to get an overview about the storage bin structure

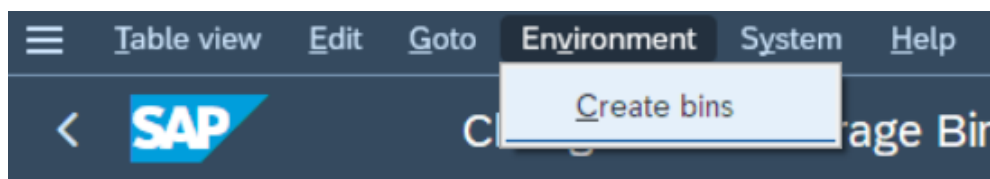
LS10

In the *Change View "Storage Bin Structure for Automatic Creation": Overview* click twice on the row for your *STBN-7-###* storage bins.

STBN-7-###

WNo	Typ	SqNo	Template	Structure	Start val.	End value	Increment	
<input type="checkbox"/>	100	001	001	CCCCCNCNNN	B BBB	STBN-1-000	STBN-1-999	1
<input type="checkbox"/>	100	001	002	CCCCCNCNNN	B BBB	STBN-2-000	STBN-2-999	1
<input type="checkbox"/>	100	001	003	CCCCCNCNNN	B BBB	STBN-3-000	STBN-3-999	1
<input type="checkbox"/>	100	002	001	CCCCCNCNNN	B BBB	STBN-7-000	STBN-7-999	1
<input type="checkbox"/>	100	002	002	CCCCCNCNNN	B BBB	STBN-8-000	STBN-8-999	1
<input type="checkbox"/>	100	002	003	CCCCCNCNNN	B BBB	STBN-9-000	STBN-9-999	1

In the detail view choose Environment → Create Bins.



In the view *Automatic Creation of Storage bins* click [Create Storage Bins Online](#).

You will get a success message after the bins were created.

Repeat this process for the storage bins *STBN-9-###*.

STBN-9-###



## Problem: Review the storage bins

Valid for: WM I, WM II, WM III, WM IV

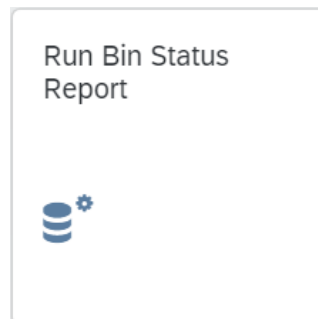
**Symptom** You would like to check if the materials are stored into the right storage bin. If the participants use the wrong storage bin, they may run into errors on later goods issue.

**Reason** Incorrect storage bins can be filled due to incorrect entries.

**Solution** Check the storage bins.

### View storage bins

Use the app *Run Bin Status Report* to check the storage bins of your participants.



In the *Bin Status Report: Initial Screen*, enter **100** as *Warehouse number* and limit the storage bins to ones your participants by restricting the storage bins as follows:

100

#### Case Study

#### Lagerplatz

WM I STBN-1-XXX bis STBN-1-YYY

WM II STBN-7-XXX bis STBN-7-YYY

WM III und WM IV STBN-8-XXX bis STBN-8-YYY

Afterwards please execute the report by pressing F8 or clicking **Execute**.

< **SAP** Bin Status Report: Initial Screen

Save as Variant... More ▾

\* Warehouse number:

Storage type:  to:

Storage bin:  to:



## Problem: Goods stored into wrong storage bin


Valid for: WM I, WM II, WM III

**Symptom** The bin status report shows that some goods were stored into a wrong storage bin.

**Reason** While storing process a wrong storage bin number was entered.

**Solution** Use a stock transfer order to store the affected goods into the right storage bin.

### Stock transfer of goods

Open the *Stock Transfer* app using the search .

Stock Transfer

In the *Stock Transfer: Start* screen enter **100** as *Warehouse number*. Add the following data depending on the selected case study:

100

#### Fallstudie

#### Storage Type

WM I und WM III

001 (Shelf Storage)

WM II

002 (Pallet Storage)

Specify the **material to be transferred** (e.g. KPAD1##) and add movement type **999** in the Program control area.

Material  
999



The *Specify Destination Data* pop-up opens. According to your case study, enter the following data as storage type and storage bin:

Case Study	Storage Type	Storage Bin
WM I	001	STBN-1-###
WM II	002	STBN-7-###
WM III	002	STBN-8-###

Independent of the case study, enter **001** as the storage area. Check that **999** is selected as the movement type and also select **Confirm immediately**. Then click on Apply.

001  
999  
Confirm immediately

Specify Destination Data ✕

Storage Type:

Storage Bin:

Storage Section:

Storage Unit:

Stor. Unit Type:

Print code:

Printer:

Do not print

\* Movement Type:

Confirm immed.

✔ Copy ✕ Cancel



## Problem: Review purchasing documents

Valid for: WM I, WM II

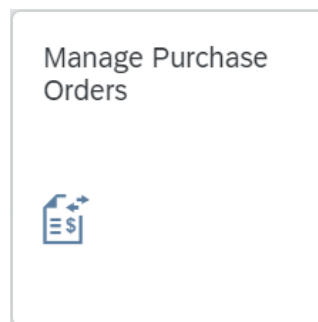
**Symptom** You would like to compare the purchase orders with the expected results.

**Reason** Common causes of errors in this case study are mis-entries by participants.

**Solution** Review the purchase order documents of your participants to verify that all inputs are correct.

### View purchasing documents

Use the *Manage Purchase Orders* app to view your students' purchase receipts.



In the *Manage Purchase Orders* view, you can specify the search by material (e.g. **KPAD1\***). Then click **Go** to initiate the search.

KPAD1\*

**Purchase Orders (4) | Standard** Withdraw from Approval Copy Create Delete Hide Draft Values

Purchase Order	Supplier	Company Code	Status	Approval Status	Approver	Net Order Value
Standard PO 4500000022	Dallas Bike Basics (103007)	Global Bike Inc. (US00)	Follow-On Documents			4,000.00 USD
: Overdue Items: 0 Overdue						
Purchase Order Date: 06/08/2022						

## Problem: Insufficient material stock level (Dallas)

Valid for: WM II

**Symptom** An insufficient amount of materials on stock lead to the situation that the good issue can't be posted.

**Reason** Frequent causes for this are, too high order quantities of the participants, repeated execution of the case studies in the same number range and the outsourcing of own material by other participants.

**Solution** Post the required amount of the material to the corresponding plant.

### Posting goods receipt

Open the app *Post Goods Movement*.



In the first drop-down menu select **Goods Receipt** and **Other** in the second one. Check if the movement type changed to 501. Afterwards enter the needed material as *Material Short Text*, the needed amount as *Qty in UnE*, the plant you want the material to be delivered as *Plnt* and the storage location you want the materials to be stored to as *SLoc*. For example **DXTR1###** as material **DL00** as plant and **FG00** as storage location.

Goods Receipt  
Other

DXTR1###  
DL00  
FG00

< **SAP** Goods Receipt Other - Teach-000 Teach-000

Show Overview Services for Object ▾ More ▾

A01 Goods Receipt ▾ R10 Other ▾

General

Document Date: 06/13/2022 Material Slip:

Posting Date: 06/13/2022 Doc.Header Text:

1 Individual Slip ▾

Line	Mat. Short Text	Wa...	OK	Qty in UnE	E...	SLoc	G.. Sto...	B... V...	Movement Type	D.. Stock Type	Plnt
	DXTR1000			10		FG00			501		DL00

Then press Enter. Post your goods receipt by clicking **Post**.





## Problem: Insufficient material stock level (San Diego)

Valid for: WM III


**Symptom** An insufficient amount of materials on stock lead to the situation that the good issue can't be posted.

**Reason** Frequent causes for this are, too high order quantities of the participants, repeated execution of the case studies in the same number range and the outsourcing of own material by other participants.

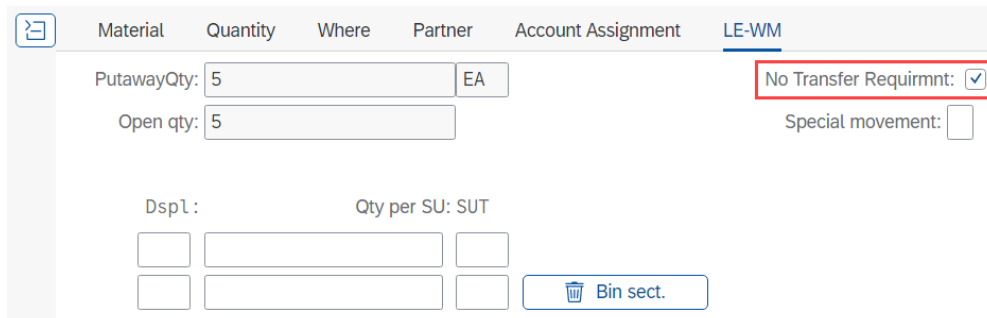
**Solution** Post the required amount of the material to the corresponding plant.

### Posting goods receipt


Because San Diego has a warehouse management system, the quick putaway of materials is implemented differently than in the previous case study.

First, proceed as described in the previous problem case. After you have defined your material (**PRTR2###**), the quantity, the plant (**SD00**) and the storage location (**FG00**), expand the detailed data  in the lower screen area.

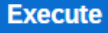
Then navigate to the *LE-WM* tab and set the **No transfer requirement** indicator, so that no transfer order is triggered.




The screenshot shows the SAP LE-WM interface. At the top, there are tabs for Material, Quantity, Where, Partner, Account Assignment, and LE-WM. Below the tabs, there are input fields for PutawayQty (5), Open qty (5), and EA. To the right, there is a checkbox for 'No Transfer Requirement' which is checked. Below these fields, there are input fields for Dsp1 and Qty per SU (SUT). At the bottom right, there is a 'Bin sect.' button.

Post your goods receipt by clicking .

### Store goods

Proceed in the same way as for the problem *Goods stored into wrong storage bin* and store the goods correctly. To do this, use the *Stock Transfer* app. Enter **003** as storage type, **PRTR2###** as material and **999** as movement type. Then start the process with . In the view *Stock Transfer: Overview* you can see that the goods are currently stored in the storage bin WE-ZONE.

Select the corresponding line and then choose  (Stock Transfer Foreground).

003  
PRTR2###  
999

**SAP** Stock Transfer: Overview

Whse number 100  
Stge type 003

Sl	StorageBin	Material	Plnt	Available stock	BUn	Batch
<input checked="" type="checkbox"/>	WE-ZONE	PRTR2000	SD00	5	EA	

The *Specify Destination Data* popup opens. Enter **002** as *Storage Type*, **STBN-8-###** as *Storage Bin* and **001** as the *storage area*. Check that **999** is selected as the *movement type* and also select **Confirm immediately**. Then click on Apply.

002  
STBN-8-###  
001  
999  
Confirm immediately

## Problem: Review sales orders


Valid for: WM III

**Symptom** You would like to compare the sales orders with the expected results.

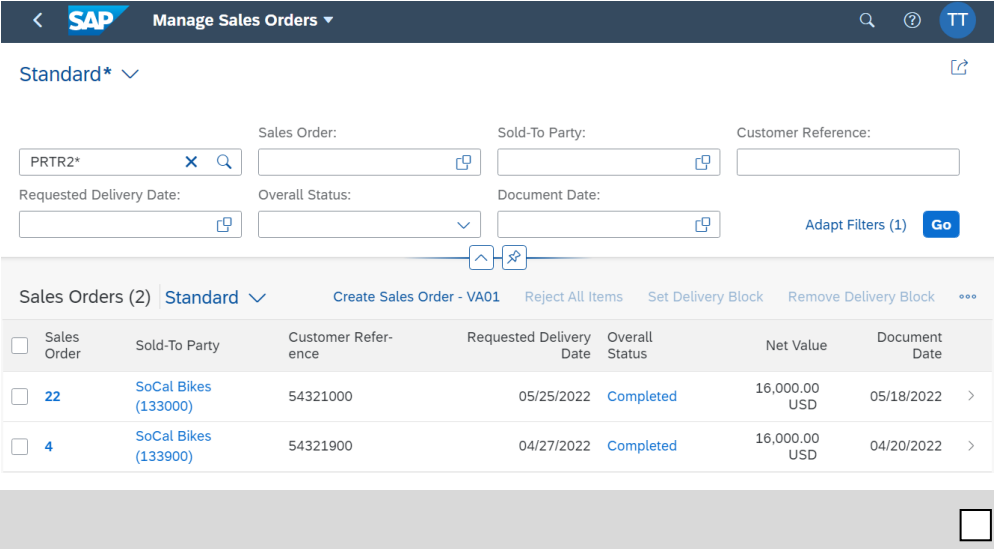
**Reason** Wrong inputs or typing errors are common mistakes of participants. They may lead to serious errors while processing later parts of a case study.

**Solution** Review the sales order documents of your participants to verify that all inputs are correct.

### View sales orders

Open the *Manage Sales Orders* app by using the search  to display your students' orders. You can use your Material (PRTR2\*) as a search criterion.

PRTR2\*



The screenshot shows the SAP Manage Sales Orders app interface. The search filter is set to "Standard\*" and the search criteria is "PRTR2\*". The table below displays the results of the search.

Sales Order	Sold-To Party	Customer Reference	Requested Delivery Date	Overall Status	Net Value	Document Date
<input type="checkbox"/> 22	SoCal Bikes (133000)	54321000	05/25/2022	Completed	16,000.00 USD	05/18/2022 >
<input type="checkbox"/> 4	SoCal Bikes (133900)	54321900	04/27/2022	Completed	16,000.00 USD	04/20/2022 >