Sales and Distribution (SD)

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 1809
Global Bike

Level
Instructor

Focus
Sales and Distribution

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Version
3.3

Last Update
May 2019

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 Sales and Distribution 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.

SAP University Alliances

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 Sales and Distribution case study is based on a standard SAP ERP 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 ERP 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).

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).

Because the case study is not based on the exercises, it is not necessary to have processed the SD exercises (SD 1 to SD 5) 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.

GBI Mobile App

With Global Bike the App GBI DataViewer was released for all compatible Android and iOS devices. It can be downloaded through Google Play Store and Apple Store. The purpose of this app is to show the possibility of platform-independent support of business processes. Therefore, some task of the case study can optionally substituted by using the GBI DataViewer App.

Please keep in mind that this app is an additional functionality designed by the UCC Magdeburg and you might encounter a bug. Therefore we kindly ask you to send any feedback or detailed error descriptions to the following address: gbi@ucc.ovgu.de

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)

Also we are developing a Global Bike Monitoring Tool, which is available for the Global Bike release. Since it is still in development the beta version does not support all case studies yet.

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

Process Monitoring

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.

The **Document Flow** visualizes all documents related to a given root document and thus helps you monitor individual business processes and is as a starting point for trouble-shooting student problems.
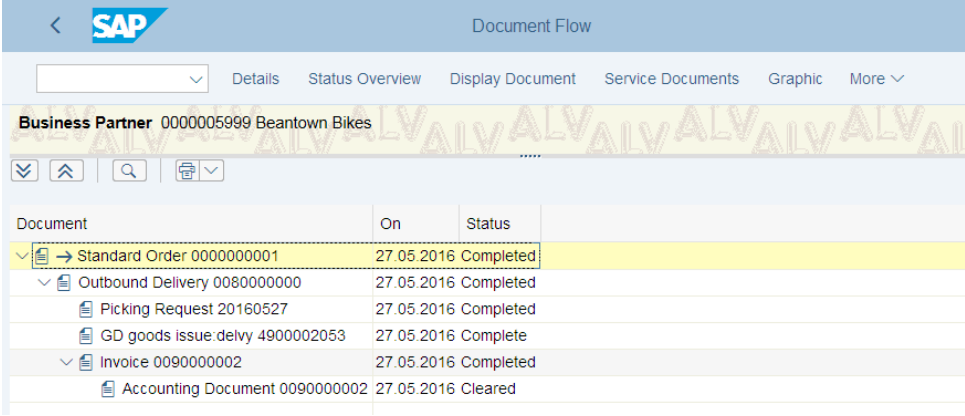
Document flow

Manage Sales Order is the app to *Display Sales Order*. Please enter the **sales order document number** in the respective field and press Enter.

Manage Sales Order
Sales order number

Note Should your student and you not remember the sales order number, you may search for it using the F4 help. Here, you navigate to the *Sales document according to customer PO number* tab and enter the user account (e.g. LEARN-001) in the *Created by* field as the only search criterion.

In the *Display Sales Document* please click on Display Document Flow .

After a successful SD case study cycle the following result is displayed by the SAP system for an individual student's sales order.

Document	On	Status
Standard Order 0000000001	27.05.2016	Completed
Outbound Delivery 0080000000	27.05.2016	Completed
Picking Request 20160527	27.05.2016	Completed
GD goods issue:delvy 4900002053	27.05.2016	Complete
Invoice 0090000002	27.05.2016	Completed
Accounting Document 0090000002	27.05.2016	Cleared

Business Partner 0000005999 Beantown Bikes

Problem: Goods issue cannot be posted

Symptom You receive error messages when trying to post the goods issue.

Reason A common cause for this error is that either the Storage Location and/or the Picked Quantity are not entered correctly.

Solution Please correct the outbound delivery document (Storage Location FG00 and Picked Quantity 5 respectively 2 both the two line items).

Error Message

The screenshot below displays two common problems that might occur when posting a goods issue:

1) For material DXTR1###, no storage location has been specified.

2) For material PRTR1###, no picked quantity has been entered.

Type	Item	Msg.	Area	MT	Message Text	Material	Description	Dlv.qty	SU	Batch
🔴	10	609	VL	E	Delivery has not yet been put away / picked (completely)	DXTR1001	Deluxe Touring Bike (black)	5,000	EA	
🔴	10	604	VL	E	The storage location is not defined for delivery item 000010	DXTR1001	Deluxe Touring Bike (black)	5,000	EA	
🔴	20	609	VL	E	Delivery has not yet been put away / picked (completely)	PRTR1001	Professional Touring Bike (black)	5,000	EA	

Solution

Please run the app **Manage Outbound Deliveries**, change the Overall Status to **All** and confirm with Enter. The screen below should appear.

Manage Outbound Deliveries

Check and correct the respective entries. Storage location **FG00** should be entered for both line items. Picked quantities are **5** and **2**. Save with [Save].

FG00
5
2

Finally, post the goods issue again.

Problem: Insufficient material stock level

Symptom An insufficient amount of materials on stock lead to the situation that a sales order cannot be fully delivered.

Reason Error messages may be caused by unplanned or unintentional material consumption or by entering incorrect (too high) quantities during the case study process.

Solution Basically, sufficient stock levels for all materials used in the exercises and case studies have been predefined in the Global Bike client. However, you can receive missing materials on stock using transaction MB1C. In this specific case, please use movement type 501, plant MI00, storage location FG00 and the particular material (DXTR1### and/or PRTR1###).

Display Material Stock Level

With transaction **Display Stock Overview** you can display the stock level of a given material.

Display Stock Overview

Enter the number of the material in question and click on **Execute**.

The following window lists available quantities on the storage location, plant, and company code level.

Correct Material Stock

In the app **Post Goods Movement**, change the Material Document drop down to **Goods Receipt**, adjust the type of Goods Receipt to **Other.**

Post Goods Movement

On the *Goods Receipt Other* screen, select the Tab *Where* enter Movement Type **501**, Plant **MI00** and Storage Location **FG00**. Then, confirm with Enter.

501
MI00
FG00

Material	Quantity	Where

Movement type: 501   Receipt w/o PO

Plant: MI00

Storage location: FG00

Goods recipient:

Note For stock level problems in the Sales and Distribution case study please use plant MI00 and storage location FG00. Dependent on the cause of a given problem the organizational units may differ.

Enter the desired **Material**, the **Quantity** and the **Storage Location**. As an example, the screenshot below shows the posting of 100 black Deluxe Touring Bikes (DXTR1###) into the finished goods storage location (FG00).

Material number
Quantity
Storage Location

General

Document Date: 03.04.2018   Material Slip:

Posting Date: 03.04.2018   Doc.Header Text:

1 Individual Slip

Line	Mat. Short Text	..	OK	Qty in UnE	E...	SLoc
1	DXTR10000		✓	100		Finished Goods

Post the goods receipt with **Post** .

Problem: Incoming payment cannot be posted

Symptom You receive an error message when trying to post the incoming payment.

Reason When creating or displaying an invoice you realize that the invoice was not successfully transferred from Sales and Distribution (SD) to Financial Accounting (FI). This is usually caused by missing or incorrect data in the customer master record.

Solution Correct the customer master record.

Change Customer Master Record

To solve this problem please open your customer master record and check whether all sales data has been entered correctly. In order to change a customer master record, use app **Maintain Business Partner**.

Enter Sales Organization **UE00**, Distribution Channel **WH** and Division **BI**. After clicking on ✓ the screen below should appear.

Maintain Business
Partner

UE00
WH
BI

| Orders | Shipping | Billing | Partner Functions | Additional Data |

Order

*Sales District:	US0003 Southeast USA
Customer Group:	
Sales Office:	
Sales Group:	
Authorization Group:	
Account at customer:	
Order Probability:	100 %
Item proposal:	
ABC Class:	
Rounding off:	☐
Unit of Measure Grp:	
PP customer proced.:	
*Currency:	USD United States Dollar

Please check whether Currency **USD** and Cust.pric.proc. **1** have been entered. Then, navigate to the *Shipping* tab and enter the following values.

USD
1

As shown above, type in Delivery Priority **2** (Normal item), Delivering Plant **MI00**, Shipping Conditions **01** (Standard) and Max.Part.Deliveries **3**. Then, navigate to the *Billing Documents* tab.

Enter **FOB** and **Miami** as Incoterms, Payment terms **0001**, Acct assgmt group **01** and Tax classification **0** for all three categories. Then, save with Save . Now, the customer master record has been checked and updated.

If the invoice had already been created and saved and the error only occurred when the student tried to display the invoice, the existing invoice needs to be canceled. In order to do so, please use the transaction **VF11**.
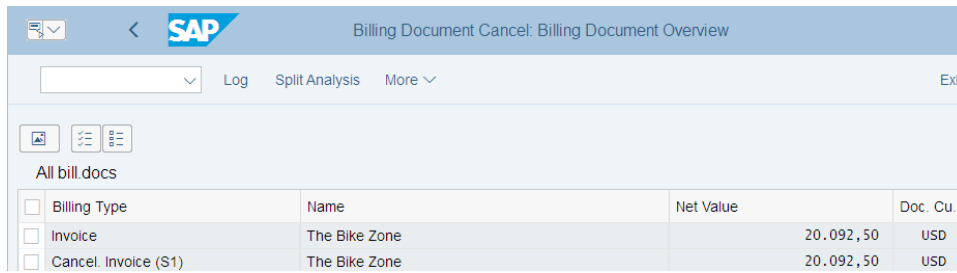
Enter the **invoice document number** if the system has not already populated the Document field automatically. Click on Execute to cancel the invoice. The screen below should appear next.

(right margin notes)
2
MI00
01
3

FOB   Miami
0001
01
0

VF11

Invoice number

In addition to the existing invoice document, a reverse invoice document is created in the system. Click on **Save** to save your changes. Now, you can create a new invoice. To do so, resume with the task *Create Invoice for Customer* in the SD case study and continue with the following process steps.

 Problem: Pricing error in inquiry, quotation or order

Symptom You receive a pricing error about missing a mandatory condition PR00, while trying to create, change or save an inquiry, a quotation or an order.

Reason A common reason for this problem is a missing date (Valid from) during the creation of an inquiry. This date will be automatically copied and reused as the pricing date value, which is an important value for pricing.

Solution Enter the Valid from date and check if it was transferred to the Pricing date value.

Error Message

In the following screenshot you can see the detailed text of the appearing error message.

Pricing error: Mandatory condition PR00 is missing

Message No. V1801

Diagnosis

The obligatory condition PR00 does not exist. The document is therefore considered to be incomplete from the point of view of pricing.

The cause can be, for example, that a condition record does not exist for condition PR00 or that a field overflow has occurred when the condition rate was calculated.

Procedure

Check why the condition could not be found. Use the pricing analysis function on the pricing screen to do this. If necessary, add the missing condition manually to the document.
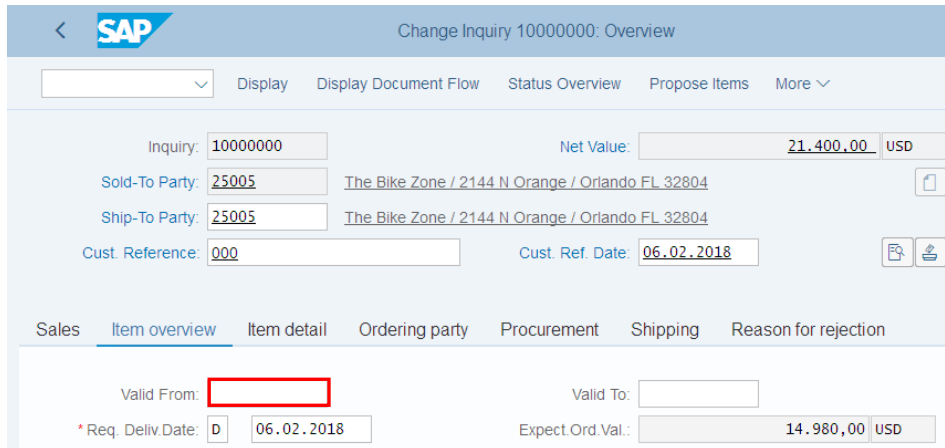
Solution

Pricing conditions have validity periods. Therefore it is necessary to enter a pricing date to automatically select the correct condition during pricing.
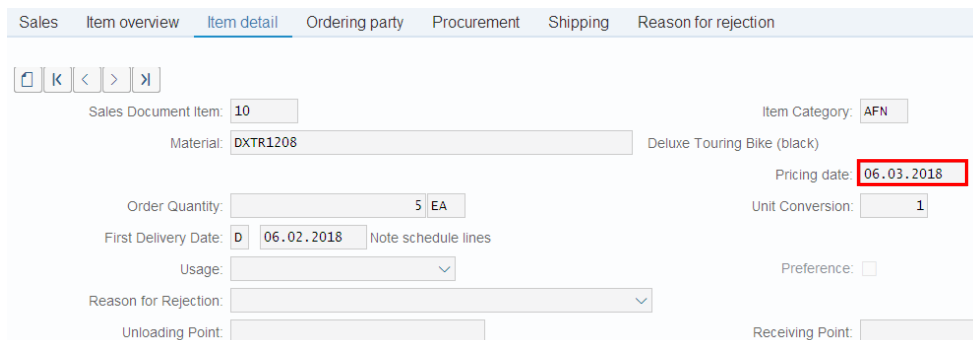
Please use the specific change transaction of document type (inquiry, quotation or order) in order to enter the missing date. In case you experienced the problem during the validity check of the transaction while trying to save, you can enter the date without leaving the transaction. How to solve the problem will be shown through the following example inquiry.

Please open the app **Change Inquiry** and select your inquiry. Press enter to proceed and ignore all system notification which may pop up.

For Valid from enter the date which is stated within the case study.

Validate your entry by pressing Enter and select the tab Item detail afterwards. Make sure that your value got copied to the field Pricing date as well.

Press **Save** to save and leave the app.

Solution: SD Challenge

Learning Objective Understand and perform an integrated order-to-cash-process.

Customer Create

Motivation Having successfully completed the case study *Sales and Distribution*, you should be able to perform the following task independently.

Scenario Your customer The Bike Zone wishes to profit from your new initiative, which promises one free off-road helmet for each mountain bike ordered. A single position can be marked as Free of Charge Item (TANN) within the Item detail view of a standard order. Please note that off-road helmets belong to a different division. Notice that you thus need to expand the rights of your customer The Bike Zone to the effect that the company can release cross-division orders for the divisions accessories and cross-division. Subsequently, please order five mountain bikes for men and five mountain bikes for women in the role of The Bike Zone. Since The Bike Zone is a long-term customer, the company gets 50$ discount on each ordered mountain bike and an additional discount of 3% of the gross price for the complete purchase.

Task Information Since this task is based on the case study *Sales and Distribution*, you are allowed to use it for support. It is however recommended to solve this advanced task without support to test the newly gained knowledge. Perform a complete order-to-cash-process including the incoming payment of your customer

In the app **Maintain Business Partner**, you create your customer The Bike Zone for the divisions Accessories (AS) and Cross-Division (00).

For this purpose, select **Organization** in the pop up. Than search for your Business Partner **The Bike Zone** you created in the task before. In the drop down menu *Change in BP role* select **Customer (defined)**. Then click on the button Sales and Distribution . Please enter the data you can see in the following screenshot.

AS
The Bike Zone

Please save the newly created customer and repeat the procedure for the division **00**.

Create Inquiry

In the course of the app **Create Inquiry**, you create an inquiry for 5 mountain bikes for men (ORMN1###), 5 mountain bikes for women (ORWN1###), and 10 off-road helmets (OHMT1###).

Please enter the following data: **IN** for Inquiry Type, **UE00** for Sales Organization, **WH** for Distribution Channel, and **00** for Division. Press Next.

In the following screen *Create Inquiry: Overview*, please enter your **Sold-To Party**. Subsequently, please enter your **Group Number** as Cust. Reference, **Today's Date** as Cust. Ref. Date and as Valid From, and **One Month from Today** as Valid To.

The Bike Zone needs an offer for three products – the mountain bike for men **(ORMN1###)**, the mountain bike for women **(ORWN1###)**, and off-road helmets **(OHMT1###)**. Please enter **5** as Order Quantity for both mountain bikes and **10** for the off-road helmets.

ORMN1###
ORWN1###
OHMT1###
5
10

	Item	Material	Order Quantity	SU	AltItm	Description
☐	10	ORMN1000	5	EA		Men's Off Road Bike
☐	20	ORWN1000	5	EA		Women's Off Road Bike
☐	30	OHMT1000	10	EA		Off Road Helmet

Please change the order probabilities for both mountain bikes to **70%** and the order probability for the off-road helmets to **100%** since they are added to the order for free. Click Enter to update the inquiry and notice the new expected order value of 17,650,000.

70
70
100

Press **Save** to save the inquiry. The SAP system will allocate a unique number to the inquiry.

Create Quotation

In the course of the app **Manage Sales Quotations** you create the quotation as described in the case study. Until the Conditions, which you create as follows.

Manage Sales Quotations

To mark the off-road helmets as free-of-charge items, please choose the corresponding Item lines and click on the tab header Item Detail. In the field Item Category, please choose the entry **AGNN**.

AGNN

	Sales	Item overview	**Item detail**	Ordering party	Procurement	Shipping	Reason for rejec

Sales Document Item: 30

Material: [   ] Off Road Helmet

Order Quantity: [   ] EA

First Delivery Date: D [03.04.2018] Note schedule lines

Delivery Time: [▼]

Reason for Rejection: [▼]

Unloading Point: [   ]

All items

	Item	Material	Order Quantity	SU	AltItm	Description
☐	30	OHMT1000	10	EA		Off Road Helmet

To grant $50,00 discount for each ordered mountain bike, please choose the line Mountain Bikes for Men and press Conditions. Subsequently, please enter **K005** (Customer/Material) as Condition Type and enter an amount of **50** USD. Subsequently, please do the same for the mountain bikes for women.

<div style="text-align:right">K005
50</div>

To apply the 3% discount on the complete purchase, please follow the menu path:

Go To ► Header ► Conditions

To apply the 3% discount, please enter **RA00** (% Discount from Net) as Condition Type and an amount of **3**. Press Enter. Please notice that the discount is not yet included in the price.

<div style="text-align:right">RA00
3</div>

To activate the 3% discount, please click the button *Activate*.

Save the new quotation.

Create Sales Order with Reference to the Quotation

In the course of the app **Create Sales Order**, please enter **OR** as Order Type. The other fields are optional to fill. Please press Create with Reference to create the following pop-up screen.

<div style="text-align:right">Create Sales Order
OR</div>

Please enter your quotation number. In case you forgot your quotation number, please use F4-help and search for your purchase order number ###.

Having entered your quotation number, please click **Copy** to copy the information concerning the quotation to the sales order.

Please enter ### as Purchase Order Number and **Today's Date** as Purchase Order Date. Notice that the requested delivery date was copied from the quotation. Save the sales order. The SAP system will create a unique number.

Today's Date

Create Outbound Delivery

In the course of the app **Create Outbound Deliveries**, please proceed as described in the case study.

Create Outbound Deliveries

Pick Material

In the course of the app **Pick Outbound Delivery**, you will see the following screen. Please confirm this screen by pressing Enter.

Pick Outbound Delivery

In the screen that appears, please click on the tab header *Picking* and enter **FG00** as Storage Location for the mountain bikes and **TG00** as Storage Location for the off-road helmets. Furthermore, please enter the corresponding amounts for Picked Quantity (**5** for ORWN1###, ORMN1### and **10** for OHMT1###). Save your entries. You should now see the following notification in the bottom-left corner of your screen.

FG00
TG00

5
5
10

Outbound Logistics

In the course of the app **Manage Outbound Deliveries**, please proceed as described in the case study.

Manage Outbound Deliveries

Create Customer Invoice

In the course of the app **Create Billing Documents**, please proceed as described in the case study.

Create Billing Documents

Post Incoming Payments

In the course of the app **Post Incoming Payments**, please proceed as described in the case study, but enter 23,280.00 as amount.

Post Incoming Payments
23,280.00