

天津大学

企业资源规划课程实验指导书



学 院 软件学院

专 业 软件工程

指导教师 陶文源

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实验准备：安装并登录 SAP UCC 系统

1. 实验目的

- 1) 了解 SAP ERP 的发展历史和功能架构；
- 2) 安装 SAP UCC 客户端并进行登录。

2. 实验环境

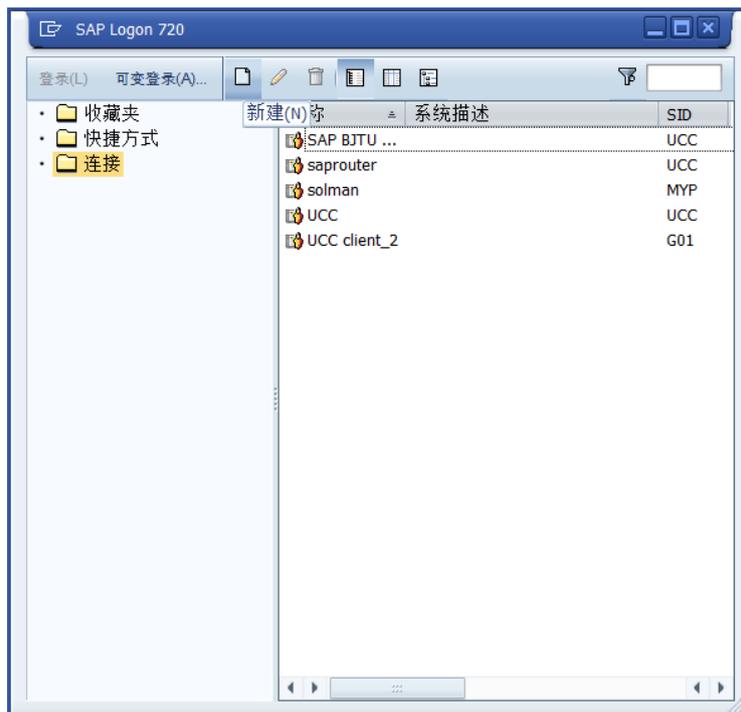
- 1) 接入 Internet 的实验主机；
- 2) Windows 7 操作系；
- 3) SAP GUI。

3. 实验内容

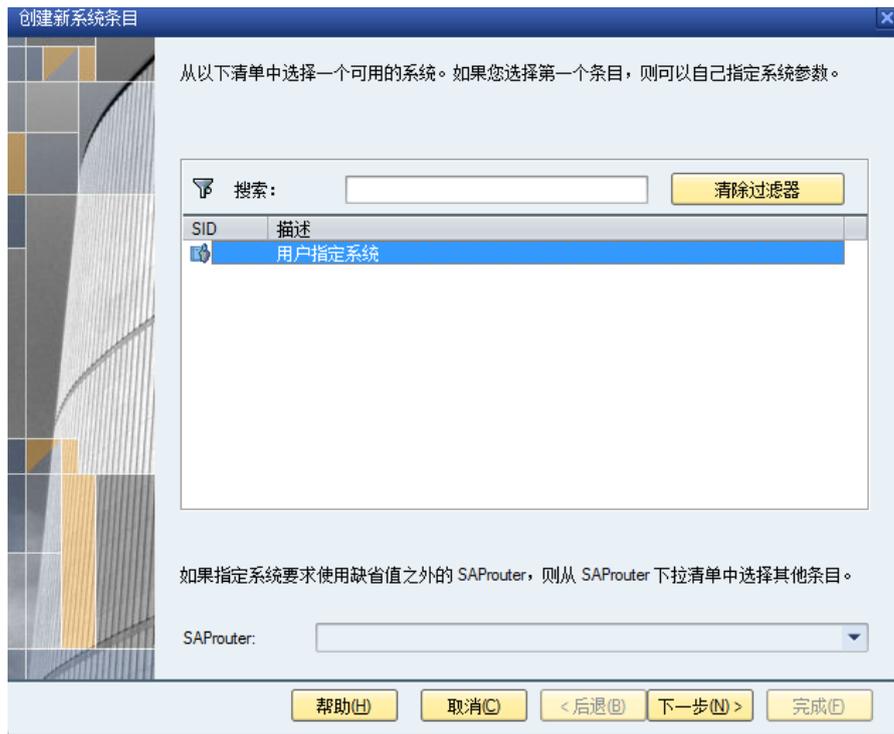
- 1) 讲解 SAP ERP 软件相关内容；
- 2) 安装 SAP GUI 客户端并登陆 SAP UCC 系统。

4. 实验步骤

- 1) 首先安装 SAP GUI（根据提示选择安装 Sapsetup GUI 即可，一路选择“下一步”直到安装完成）。
- 2) 安装完成后 如图所示，单击“新建”。



3) 单击“创建”后如图。



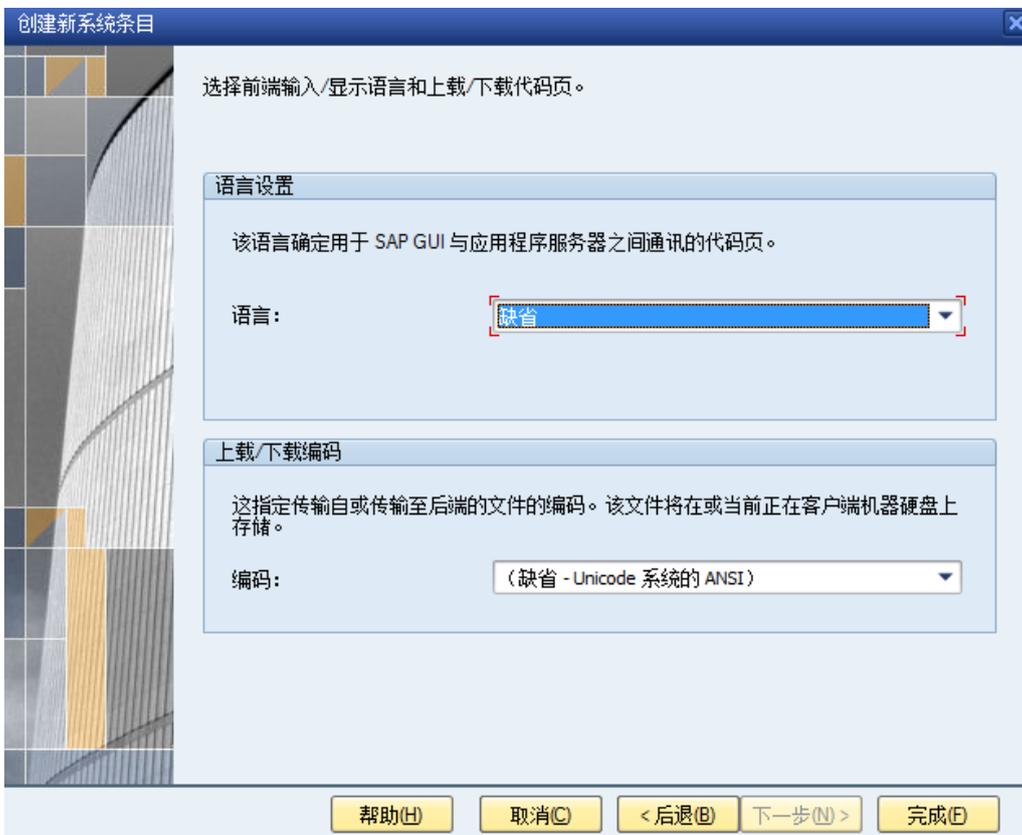
4) 单击“下一步”如图。描述：GBI (这里的描述可以随意填写)，应用程序服务器：211.71.76.19，实例编号：02，系统标示：G06，单击“下一步”。



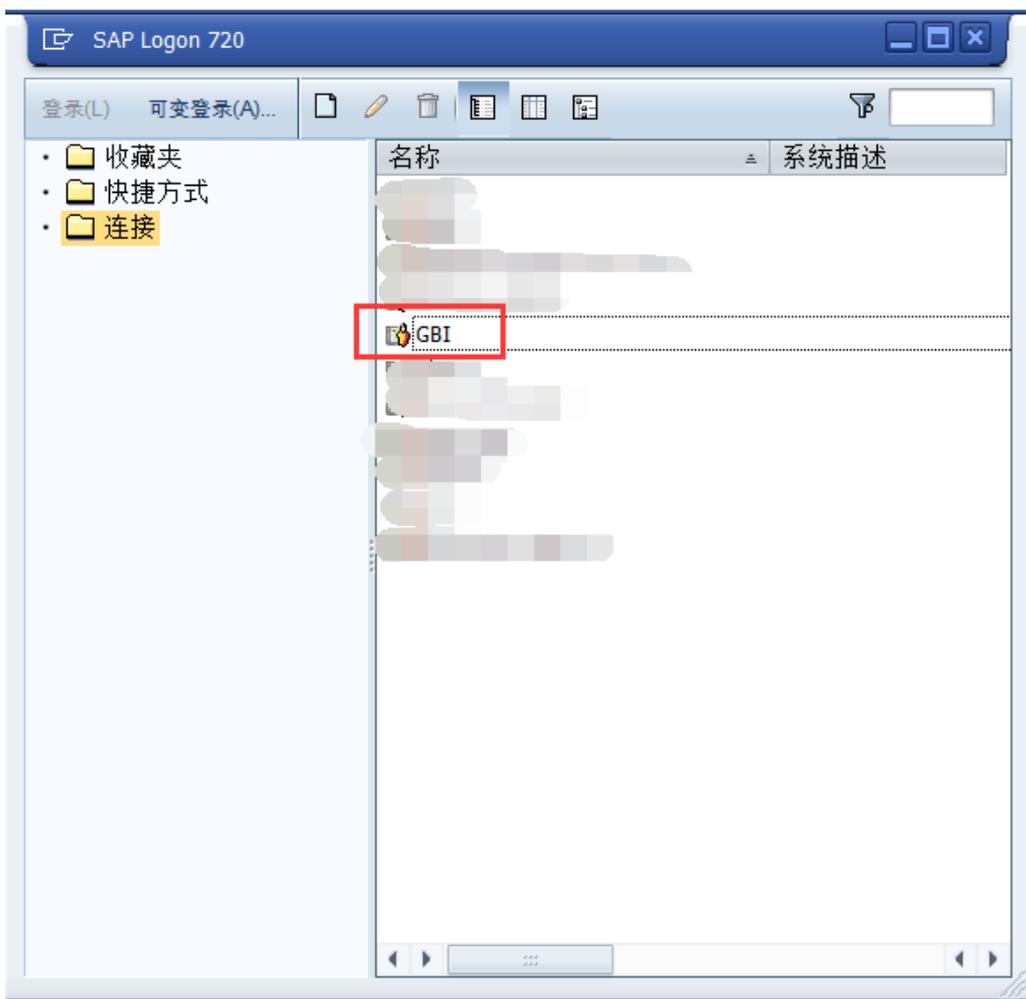
5) 单击“下一步”。



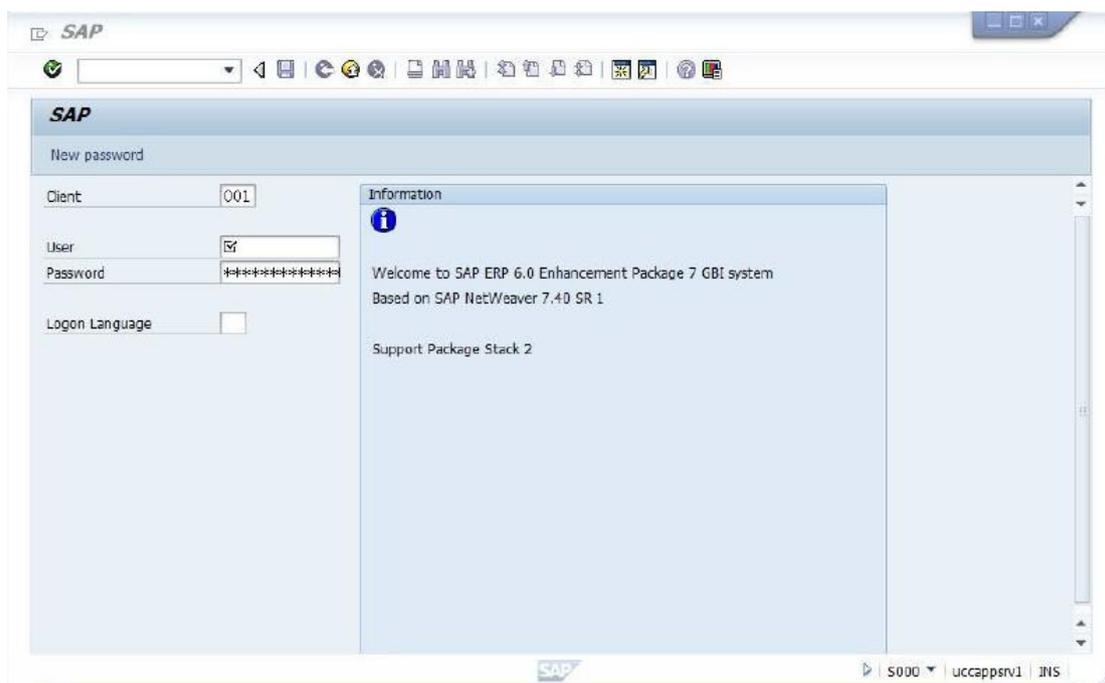
6) 单击“完成”。



7) 再一次打开 SAP GUI 在连接处可见“GBI”双击进入。



8) 输入提供的账号和密码进入系统，首次进入系统需要修改密码。



5. 实验方式

每位同学独立上机编程实验，实验指导教师现场指导。

实验 1：销售和分销

1. 实验目的

了解并执行一个完整的订单到收款的周期。

2. 实验环境

- 1) 接入 Internet 的实验主机；
- 2) Windows 7 操作系；
- 3) SAP GUI。

3. 实验内容

为了处理完整的订单到现金流程，学生需要在 GBI 公司内担任不同的角色，例如，销售代理，仓库工，会计文员。总体而言，学生可以对销售和分销（SD），物料管理（MM）和财务会计（FI）部门的具体工作进行操作。首先，学生通过在奥兰多创建一个新客户（自行车专区）来启动销售订单流程。然后，将收到一个通知，并将其处理成报价单。一旦报价被客户接受，就创建一个引用报价单的销售订单。由于系统中拥有足够的自行车库存，学生可以将销售的产品交付给客户，创建发票并接收付款。该过程的全部数据为虚拟数据供学生进行实验操作。

4. 实验步骤

1) Create New Customer

To create a new customer, follow the menu path:

Logistics ▶ Sales and Distribution ▶ Master Data ▶ Business Partner ▶ Customer ▶ Create ▶ Complete

Menu path

This will produce the following screen.

Customer Create: Initial Screen

Account group

Customer

Company code Global Bike Inc.

Sales area

Sales Organization

Distribution Channel

Division

All sales areas... Customer's sales areas...

Reference

Customer

Company code

Sales organization

Distribution channel

Reference division

✓ 🖨️ ✎️ 🗉 ✖

Select **Sold-to Party** for the Account group. Enter **US00** for Company code, **UE00** for Sales Organization, **WH** for Distribution Channel, and **BI** for Division. After clicking on , the following screen will appear.

US00
UE00
WH
BI

Create Customer: General Data

Other Customer Company Code Data Sales Area Data

Customer: INTERNAL

Address Control Data Payment Transactions Marketing Unloading Points Export Data Contact Person

Name
Title: Company
Name: The Bike Zone

Search Terms
Search term 1/2: 000

Street Address
Street/House number: 2144 N Orange Ave
Postal Code/City: 32804 Orlando
Country: US Region: FL

Select **Company** as Title, enter **The Bike Zone** for Name and **###** for Search term 1. Remember to replace **###** with your three-digit number, e.g. 003 if your number is 003. Then, enter **2144 N Orange Ave** for Street, **32804** for Postal Code, **Orlando** for City, **US** for Country, and **FL** for Region. Then click on the expand icon  to access additional street address fields.

Company
The Bike Zone

2144 N Orange Ave
Orlando, FL 32804
US

Scroll down and click on the search icon next to the Transportation Zone field. This will produce the following pop-up window.

Transportation zone to or from which the goods are delivered (1) ...

Restrictions

Country Key: US

TranspZone	Description
0000000001	Region East
0000000002	Region West

Double-click on **Region East** to select it. Clicking on Company Code Data will produce the following screen.

Region
East

Account Management	Payment Transactions	Correspondence	Insurance
Accounting information			
Recon. account	<input type="text" value="110000"/>	Sort key	<input type="text" value="001"/>
Head office	<input type="text"/>	Cash mgmt group	<input type="text"/>
Authorization	<input type="text"/>	Value adjustment	<input type="text"/>
Interest calculation			
Interest indic.	<input type="text"/>	Last key date	<input type="text"/>
Interest cycle	<input type="text"/>	Last interest run	<input type="text"/>
Reference data			
Prev.acct no.	<input type="text"/>	Personnel number	<input type="text"/>
Buying Group	<input type="text"/>		

Enter **110000** for Recon. account (reconciliation account) and **001** for Sort key. Then click on the Payment Transactions tab.

110000
001

After entering **0001** for Terms of payment and clicking on the Sales Area Data button, the following screen will appear.

0001

Sales	Shipping	Billing Documents	Partner Functions
Sales order			
Sales district	<input type="text"/>	Order probab.	<input type="text" value="100"/> %
Sales Office	<input type="text"/>	AuthorizGroup	<input type="text"/>
Sales Group	<input type="text"/>	Item proposal	<input type="text"/>
Customer group	<input type="text"/>	Acct at cust.	<input type="text"/>
ABC class	<input type="text"/>	UoM Group	<input type="text"/>
Currency	<input type="text" value="USD"/> United States Dollar	Exch. Rate Type	<input type="text"/>
<input type="checkbox"/> Switch off rounding		PP cust. proc.	<input type="text"/>
Product attributes			
Pricing/Statistics			
Price group	<input type="text"/>		
Cust.pric.proc.	<input type="text" value="1"/> Standard		
Price List	<input type="text"/>		
Cust.Stats.Grp	<input type="text" value="1"/>		

Make sure **USD** is entered for Currency and **1** is entered for Cust.pric.proc. Enter **1** for Cust.Stats.Grp, then click on the Shipping tab. Fill in the following data.

USD
1
1

Sales	Shipping	Billing Documents	Partner Functions
Shipping			
Delivery Priority	02	<input checked="" type="checkbox"/> Order Combination	
Shipping Conditions	01		
Delivering Plant	MI00		
<input type="checkbox"/> Relevant for POD			
POD timeframe			
Partial deliveries			
<input type="checkbox"/> Complete delivery reqd by law			
Partial delivery per item	<input type="checkbox"/>	Partial delivery allowed	
Max. partial deliveries	3		
<input type="checkbox"/> Unlimited tol.			
Underdel. Tolerance			
Overdeliv. Tolerance			
General transportation data			
Transportation zone	0000000001	Region East	

As shown above, enter **02** (normal) for Delivery Priority, **01** (standard) for Shipping Conditions, **MI00** for Delivering Plant, and **3** for Max. partial deliveries. Then click on the Billing Documents tab.

02
01
MI00
3

Enter **FOB** and **Miami** for Incoterms, **0001** for Terms of payment, **01** for Acct.assgmt group and **0** for Tax classification for all three categories. Then click on the save icon .

FOB
Miami
0001
01
0

The SAP system will create the master record for the new customer and assign the customer a unique customer number.

Customer
number

Customer 0000025011 has been created for company code US00 sales area UE00 WH BI

Click on the cancel icon  to return to the SAP Easy Access screen.

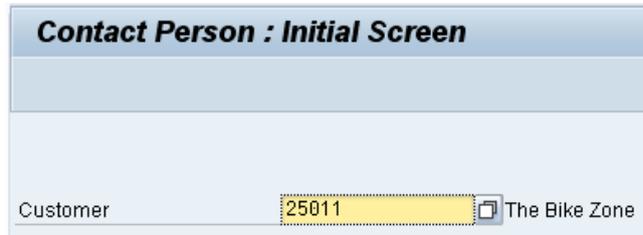
2) Create Contact Person for Customer

To create a contact person, follow the menu path:

Logistics ▶ Sales and Distribution ▶ Master Data ▶ Business Partner ▶ Contact Person ▶ Create

Menu path

This will produce the following screen.



If your customer number is not entered by default, then search for your new customer using the F4 help with search term ###.

When your customer number is entered, click on  which will produce the following screen.

###



Enter **1** for VIP (management), **0002** for Department (Purchasing), **02** for Function (head of purchasing), and **0002** for call frequency (weekly). Enter whatever name you wish, and fill in any other data you like, then click on .

1
0002
02
0002

Your contact person will be given a unique number.

 Contact person 0000000005 created for customer 0000025011

Contact
person
number

Click on the exit icon  to return to the SAP Easy Access screen.

3) Change Customer

To change a customer master record, follow the menu path:

Logistics ► Sales and Distribution ► Master Data ► Business Partner ► Customer ► Change ► Sales and Distribution

Menu path

This will produce the following screen.



If the customer number is not entered by default, search for it using the F4 help and the search term **###** (your number). Make sure that following values are entered: **UE00** for Sales Organization, **WH** is entered for Distribution Channel, and **BI** for Division. Then, press Enter.

UE00
WH
BI

On the Sales Area Data screen, select the Partner Functions tab. The following screen will appear..



In the next empty row, enter **CP** for PF (partner function). Click on the Number field and then on the search icon , which will bring up the following search window.

CP

Your customer number is entered automatically. Make sure that all other fields are empty like it is shown in the screenshot above. Then, click on the enter icon  to begin the search and find your newly created contact person.

SearchTer...	Customer	Vend...	Last name	First name	Funct	Partner
	25011		Jones	James	02	0000000005

Double-click on the partner to enter the partner number. Click on  to save.

Click on the cancel icon  to return to the SAP Easy Access screen.

4) Create Customer Inquiry

To create an inquiry, follow the menu path:

Logistics ► Sales and Distribution ► Sales ► Inquiry ► Create

This will produce the following screen.

Menu path

The screenshot shows the 'Create Inquiry: Initial Screen' in SAP. At the top, there are navigation icons for 'Create with Reference', 'Sales', 'Item overview', and 'Ordering party'. Below this, the 'Inquiry Type' field is set to 'IN' and has a search icon. A section titled 'Organizational Data' contains the following fields:

Sales Organization	UE00	US East
Distribution Channel	WH	Wholesale
Division	BI	Bicycles
Sales Office		
Sales Group		

Enter the following information: **IN** for Inquiry Type, **UE00** for Sales Organization, **WH** for Distribution Channel and **BI** for Division. Then click on . This will produce the following screen.

IN
UE00
WH
BI

The screenshot shows the 'Create Inquiry: Overview' screen. It features a top navigation bar with icons for 'Sales', 'Item overview', 'Item detail', 'Ordering party', 'Procurement', 'Shipping', and 'Reason for rejection'. The main area contains several input fields:

- Inquiry: []
- Net value: [0.00]
- Sold-To Party: [] with a search icon
- Ship-To Party: []
- P.O. Number: []
- PO date: [] with a search icon
- Valid from: []
- Valid to: []
- Req. deliv.date: [0] [05/28/2010]
- Expect.ord.val.: [0.00]

Click on the Sold-to party field, then click on the search icon , which will bring up the following search screen.

Orlando

Restrict Value Range (1)

Customers (general) Customers per sales group Customers by Address Attribu...

Search term

Postal Code

City

Name

Customer

Maximum No. of Hits

Because you have defined a search term when we created our new customer, we can now use it to find your The Bike Zone.

Click on the Customers (general) tab, enter ### for search term and for City. Then, click on . This will produce the new customer.

Orlando

Restrict Value Range (1) 1 Entry found

Customers (general) Customers per sales group Customers by Address ...

SearchTer	PostalCode	City	Name 1	Customer
000	32804	ORLANDO	THE BIKE ZONE	25011

Double-click on The Bike Zone to select it.

Inquiry Net value

Sold-To Party

Ship-To Party

PO Number PO date

Sales Item overview Item detail Ordering party Procurement Shipping Reason for rejection

Valid from Valid to

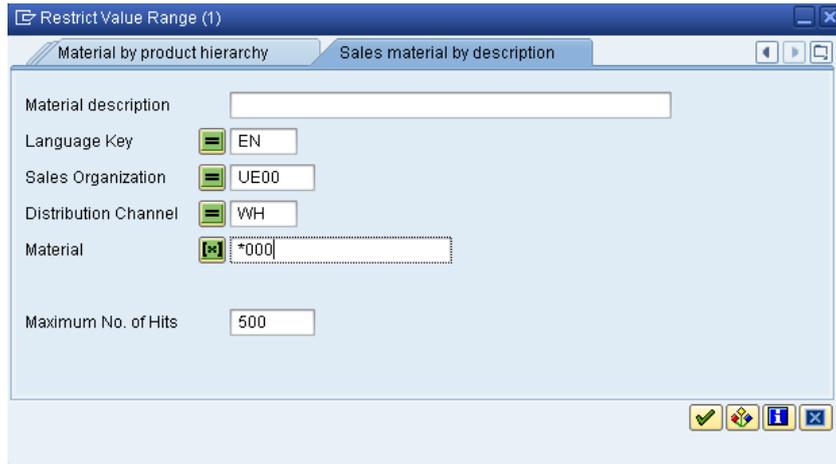
Req. deliv.date Expect.ord.val.

Enter ### for PO Number, **today's date** for the PO date (F4, then Enter), **today's date** for the Valid from date (F4, then Enter) and a date **one month from today** for the Valid to date (F4, then select the date).

today's
date
one month
from today

The Bike Zone wants a quote on two products – the Deluxe Touring Bike (black) and the Professional Touring Bike (black). To find these products, we need to use the search function. Click on the material field, then click on the search icon .

Make sure you are on the Sales material by description tab.



On the Sales material by description tab, enter Sales Organization **UE00**, Distribution Channel **WH** and Material ***###** (e.g. *005 if your number is 005). Then click on to get the list of bicycles.

UE00
WH
*###

Material description	Language	SOrg.	DChl	Material
AIR PUMP	EN	UE00	WH	PUMP1000
DELUXE TOURING BIKE (BLACK)	EN	UE00	WH	DXTR1000
DELUXE TOURING BIKE (RED)	EN	UE00	WH	DXTR3000
DELUXE TOURING BIKE (SILVER)	EN	UE00	WH	DXTR2000
ELBOW PADS	EN	UE00	WH	EPAD1000
FIRST AID KIT	EN	UE00	WH	FAID1000
KNEE PADS	EN	UE00	WH	KPAD1000
MEN'S OFF ROAD BIKE	EN	UE00	WH	ORMN1000
OFF ROAD HELMET	EN	UE00	WH	OHMT1000
PROFESSIONAL TOURING BIKE (BLACK)	EN	UE00	WH	PRTR1000
PROFESSIONAL TOURING BIKE (RED)	EN	UE00	WH	PRTR3000
PROFESSIONAL TOURING BIKE (SILVER)	EN	UE00	WH	PRTR2000
REPAIR KIT	EN	UE00	WH	RKIT1000
ROAD HELMET	EN	UE00	WH	RHMT1000
T-SHIRT	EN	UE00	WH	SHRT1000
WATER BOTTLE	EN	UE00	WH	BOTL1000
WATER BOTTLE CAGE	EN	UE00	WH	CAGE1000
WOMEN'S OFF ROAD BIKE	EN	UE00	WH	ORWN1000

Double-click on the **Deluxe Touring Bike (black)** to select it and enter an order quantity of **5** pieces.

DXTR1###
5

Item	Material	Order Quantity	SU	Alltm	Description
	DXTR1000	5			

Repeat the process to enter a quantity of **2** of the **Professional Touring Bike (black)**. Click on the enter icon to determine the price for this order.

PRTR1###
2

Sales		Item overview	Item detail	Ordering party	Procurement	Shipping	Reason for rejection
Valid from	05/28/2010	Valid to	06/28/2010				
Req. deliv.date	D 05/28/2010	Expect.ord.val.	6,420.00		USD		
All items							
Item	Material	Order Quantity	SU	Altitm	Description		
	10DXTR1000		5	EA	Deluxe Touring Bike (black)		
	20PRTR1000		2	EA	Professional Touring Bike (black)		

The total price for these 7 bikes to The Bike Zone is 21,400.00, which is given by the net value. The Expect.ord.val (6,420.00) is a calculated value which takes the net value of the order and multiplies it by the probability of having an inquiry from this customer turn into an actual order. Use the scroll icon to get to the Order probability column (two columns right of the Net value column).

Sales		Item overview	Item detail	Ordering party	Procurement	Shipping	Reason for rejection
Valid from	05/28/2010	Valid to	06/28/2010				
Req. deliv.date	D 05/28/2010	Expect.ord.val.	6,420.00		USD		
All items							
Ite...	High...	Net value	BOM exp...	Order probability	Engineering change	Curr.	Reason for rejection
AFN		15,000.00		30		USD	
AFN		6,400.00		30		USD	

The order probability of 30% is the default value that was set for GBI for inquiry documents. The expected order value is then $0.30 \times 21,400.00 = 6,420.00$. We can change the order probability for an inquiry, which makes sense as different customer inquiries would have different probabilities of becoming an actual sales order.

Change the order probabilities to **70%**, then click on the enter icon  to update the inquiry and note the new Expect.ord.val of 14,980.00.

75

Sales		Item overview	Item detail	Ordering party	Procurement	Shipping	Reason for rejection
Valid from	05/28/2010	Valid to	06/28/2010				
Req. deliv.date	D 05/28/2010	Expect.ord.val.	14,980.00		USD		
All items							
Ite...	High...	Net value	BOM ex...	O...	Engineering change	Curr.	Reason for rejection
AFN		15,000.00		70		USD	
AFN		6,400.00		70		USD	

Click on  to save the inquiry. The SAP system will assign a unique number to the inquiry.

 Inquiry 10000000 has been saved

Inquiry number

Click on the exit icon  to return to the SAP Easy Access screen.

5) Create Customer Quotation

The Bike Zone would like a firm quote for the items in the inquiry created before. We can do this easily by copying the details from the inquiry into the new quotation. To do this, follow the menu path:

Logistics ► Sales and Distribution ► Sales ► Quotation ► Create

This will produce the following screen.

Menu
path

Create Quotation: Initial Screen

Create with Reference Sales Item overview Ordering party

Quotation Type **QT** Quotation

Organizational Data

Sales Organization	UE00	US East
Distribution Channel	WH	Wholesale
Division	BI	Bicycles
Sales Office		
Sales Group		

Enter **QT** for Quotation Type, then click on Create with Reference. This will produce the following screen.

QT

Create with Reference

Inquiry Quotation Order Contract SchedAgree BillDoc

Inquiry [highlighted] [copy icon]

Requested deliv.date [] []

Search Criteria

Pur. Order	[]
Sold-to party	[]
WBS Element	[]

[Search icon] Search

Make sure the **Inquiry** tab is selected, click on the **Inquiry** field, then on the search icon [copy icon]. This will produce the following search window.

Sales Document (1)

Sales documents, not fully confirmed | Sales documents by customer

Partner:

Partner Function:

Sales Organization:

Sales Office:

Sales Group:

Distribution Channel:

Division:

Sales Document Type:

Purchase order no.:

Document Date:

Created by:

Valid from:

Valid to:

Transaction group:

Sales Document:

Maximum No. of Hits:

In the Sales documents by customer tab, enter your Purchase order no. (###), then click on . This will produce a list with the inquiry for The Bike Zone.

###

Sales Document (1) 1 Entry found

Sales documents, not fully confirmed | Sales documents by customer | Delayed sales docu...

Partn...	Funct	SOrg	SO	SGrp	DChl	Dv	SaTy	Purchase order ...	Doc. Date	Created ...	Valid from	Valid to	TrG	Document
25011	SP	UE00	WH	BI	IN	000	000	05/28/2010	GBI-021	05/28/2010	06/28/2010	1	10000005	

Double-click on the inquiry to select it, and the inquiry number will be copied in the Create with Reference window.

Click on the Copy button to copy information from the inquiry into the quotation screen.

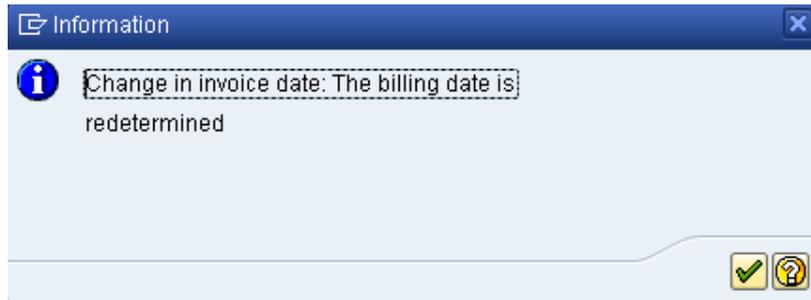
Item	Material	Order Quantity	SU	Altitm	Description
10	DXTR1000		5	EA	Deluxe Touring Bike (black)
20	PRTR1000		2	EA	Professional Touring Bike (black)

Enter ### as PO number again, **today's date** for the PO date, a date **one month from today** for the Valid to date, and a date **one month from today** for the Req. deliv.date. Then click on the enter icon , which will produce the following warning.

today's
date
one
month
from
today
one
month
from
today

The default date is not copied into existing schedule lines

Click on the enter icon to acknowledge the warning. This will produce an information message.



Click on the enter icon  to acknowledge this information.

To encourage The Bike Zone to become a loyal customer, you have been authorized to give a \$50.00 discount on each Deluxe Touring bike, as well as a 5% discount on the entire order.

To add the \$50.00, select the Deluxe Touring bike line in the order, then click on the Item conditions icon . You will get a screen that shows the pricing details for your Deluxe Touring Bike.

Pricing Elements										
N...	CnTy	Name	Amount	Crcy	per	U...	Condition value	Curr.	Status	NumC... OUn
		PR00 Price	3,000.00	USD		1 EA	15,000.00	USD		1 EA
		Gross Value	3,000.00	USD		1 EA	15,000.00	USD		1 EA
		Discount Amount	0.00	USD		1 EA	0.00	USD		1 EA
		Rebate Basis	3,000.00	USD		1 EA	15,000.00	USD		1 EA
		Net Value for Item	3,000.00	USD		1 EA	15,000.00	USD		1 EA
		Net Value 2	3,000.00	USD		1 EA	15,000.00	USD		1 EA
		Total	3,000.00	USD		1 EA	15,000.00	USD		1 EA
		SKTD Cash Discount	0.000	%			0.00	USD		0
		VPRS Internal price	1,400.00	USD		1 EA	7,000.00	USD		1 EA
		Standard - USA Wwith	1,600.00	USD		1 EA	8,000.00	USD		1 EA

In SAP, pricing is done using conditions. The pricing procedure defines which condition types are to be used to calculate the final price. Condition type PR00 is a gross price condition. To add a discount, we can add condition type **K004** (material discount) with an amount of **50** to the pricing procedure.

		Total	3,000.00	USD		1 EA		
		SKTD Cash Discount	0.000	%				
		VPRS Internal price	1,400.00	USD		1 EA		
		Standard - USA Wwith	1,600.00	USD		1 EA		
		K004					50	

K004
50

After clicking on the enter icon , a new price for the 5 Deluxe Touring bikes will be calculated.

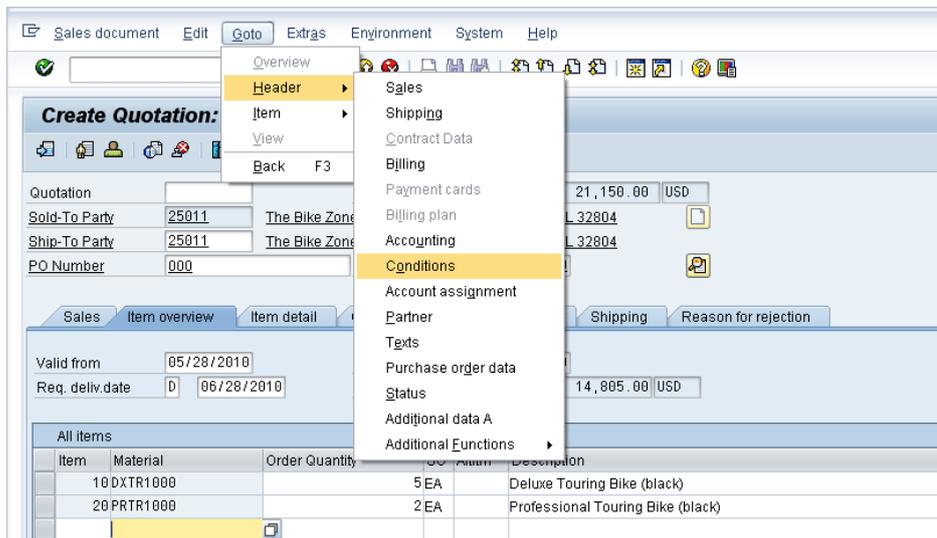
Pricing Elements										
N...	CnTy	Name	Amount	Crcy	per	U...	Condition value	Curr.	Status	NumC... OUn
PR00		Price	3,000.00	USD		1 EA	15,000.00	USD		1 EA
		Gross Value	3,000.00	USD		1 EA	15,000.00	USD		1 EA
K004		Material	50.00	USD		1 EA	250.00	USD		1 EA
		Discount Amount	50.00	USD		1 EA	250.00	USD		1 EA
		Rebate Basis	2,950.00	USD		1 EA	14,750.00	USD		1 EA
		Net Value for Item	2,950.00	USD		1 EA	14,750.00	USD		1 EA
		Net Value 2	2,950.00	USD		1 EA	14,750.00	USD		1 EA
		Total	2,950.00	USD		1 EA	14,750.00	USD		1 EA
SKT0		Cash Discount	0.00	%			0.00	USD		0
VPRS		Internal price	1,400.00	USD		1 EA	7,000.00	USD		1 EA
		Standard - USA/With	1,550.00	USD		1 EA	7,750.00	USD		1 EA

Note that the discount is now applied to the order. Click on the back icon  to return to the main quotation screen.

To apply a 5% discount to the entire order, follow the pull-down menu path:

Goto ► Header ► Conditions

This will produce the following screen.



To apply the 5% discount, enter CnTy (condition type) **RA00** (Net Discount) with an amount of **5**, then click on . Note that the price does not yet include the 5% discount.

RA00
5

Pricing Elements												
N...	CnTy	Name	Amount	Crcy	per	U...	Condition value	Curr.	Status	Condition value	CdCur	Stat
PR00		Price					21,400.00	USD		0.00		<input type="checkbox"/>
		Gross Value					21,400.00	USD		0.00		<input type="checkbox"/>
K004		Material					250.00	USD		0.00		<input type="checkbox"/>
		Discount Amount					250.00	USD		0.00		<input type="checkbox"/>
		Rebate Basis					21,150.00	USD		0.00		<input type="checkbox"/>
		Net Value for Item					21,150.00	USD		0.00		<input type="checkbox"/>
		Net Value 2					21,150.00	USD		0.00		<input type="checkbox"/>
		Total					21,150.00	USD		0.00		<input type="checkbox"/>
SKT0		Cash Discount					0.00	USD		0.00		<input checked="" type="checkbox"/>
VPRS		Internal price					10,000.00	USD		0.00		<input checked="" type="checkbox"/>
		Standard - USA/With					11,150.00	USD		0.00		<input type="checkbox"/>
	RA00		5									<input type="checkbox"/>

To include the 5% discount, click on the activate icon .

N_CnTy	Name	Amount	Crcy	per	U...	Condition value	Curr	Status	Condition value	CrdCur	Stat
PR00	Price					21,400.00	USD		0.00		<input type="checkbox"/>
	Gross Value					21,400.00	USD		0.00		<input type="checkbox"/>
K004	Material					250.00	USD		0.00		<input type="checkbox"/>
RA00	% Discount from Net	5.000	%			1,057.50	USD		0.00		<input type="checkbox"/>
	Discount Amount					1,307.50	USD		0.00		<input type="checkbox"/>
	Rebate Basis					20,092.50	USD		0.00		<input type="checkbox"/>
	Net Value for Item					20,092.50	USD		0.00		<input type="checkbox"/>
	Net Value 2					20,092.50	USD		0.00		<input type="checkbox"/>
	Total					20,092.50	USD		0.00		<input type="checkbox"/>
SKT0	Cash Discount					0.00	USD		0.00		<input checked="" type="checkbox"/>
WPRS	Internal price					10,000.00	USD		0.00		<input checked="" type="checkbox"/>
	Standard - USA M/ith					10,092.50	USD		0.00		<input type="checkbox"/>

The 5% discount is now applied. Note that it is applied to the price **after** the \$50 discount per Deluxe Touring bike. Click on  to save the new quotation. Click on the exit icon  to return to the SAP Easy Access screen.

6) Create Sales Order Referencing a Quotation

To create a sales order, follow the menu path:

Logistics ► Sales and Distribution ► Sales ► Order ► Create

Menu path

This will produce the following screen.

Create Sales Order: Initial Screen

Create with Reference
 Sales
 Item overview
 Ordering party

Order Type OR Standard Order

Organizational Data

Sales Organization US East

Distribution Channel Wholesale

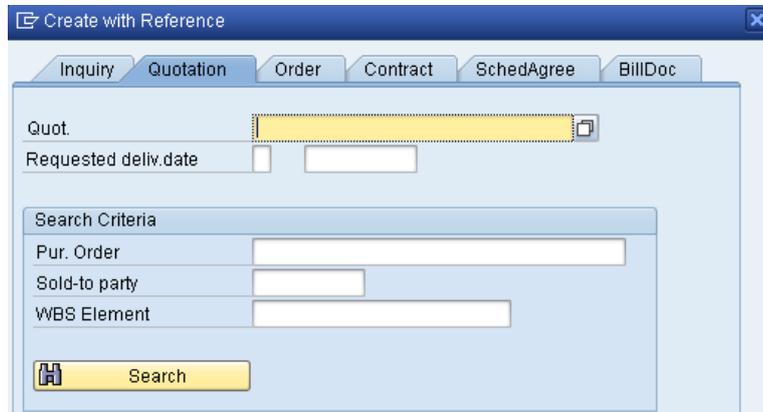
Division Bicycles

Sales Office

Sales Group

Enter Order Type **OR**. The other fields do not necessarily need to be filled. Then, click on the Create with Reference icon. This will produce the following pop-up search window.

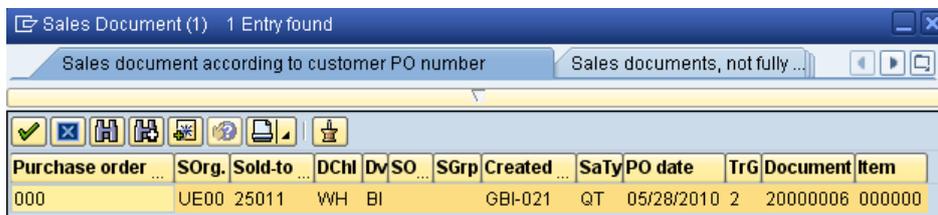
OR



Make sure that the Quotation tab is selected, click on the Quotation field, then on the search icon .

On the following search window, make sure you select the Sales document according to customer PO number tab, enter **###** for PO number, then click on the enter icon .

###



After double-clicking on the quotation, the number for the quotation will be entered into the Create with Reference window.

With the Quotation number entered, click on the  Copy icon to copy the information from the quotation into the sales order screen.

Create Standard Order: Overview

Standard Order: [] Net value: 20,092.50 USD

Sold-To Party: 25011 The Bike Zone / 2144 N Orange Ave / Orlando FL 32804

Ship-To Party: 25011 The Bike Zone / 2144 N Orange Ave / Orlando FL 32804

PO Number: 000 PO date: 05/28/2010

Req. deliv. date: 06/28/2010 Deliver.Plant: []

Complete dlv. [] Total Weight: 57,170.6

Delivery block: [] Volume: 0.000

Billing block: [] Pricing date: 05/28/2010

Payment card: [] Exp.date: []

Card Verif.Code: []

Payment terms: 0001 Pay immediately w/o Incoterms FOB Miami

Order reason: []

Item	Material	Order Quantity	Un	S	Description	Customer Material Numb	ITCa	DGIP
10	DXTR1000		5	EA	Deluxe Touring Bike (black)		TAN	
20	PRTR1000		2	EA	Professional Touring Bike (black)		TAN	

Enter ### for PO number and **today's date** (F4, then Enter) for the PO date. Note that the Req.deliv.date is copied from the quotation. Click on  to save the sales order. The SAP system will assign a sales order number.

today's
date

 Standard Order 7 has been saved

Click on the exit icon  to return to the SAP Easy Access screen.

7) Check Stock Status

We can check on the inventory level of the bikes in the sales order for The Bike Zone. To do this, follow the menu path:

Logistics ► Materials Management ► Inventory Management ► Environment ► Stock ► Stock Overview

Menu
path

This will produce the following screen.

Stock Overview: Company Code/Plant/Storage Location/Batch

Database selections

Material: []

Plant: [] to [] 

Storage location: [] to [] 

Batch: [] to [] 

Stock Type Selection

Also Select Special Stocks

Also Select Stock Commitments

To find the material number for your bikes, click on the Material field, then click on the search icon .

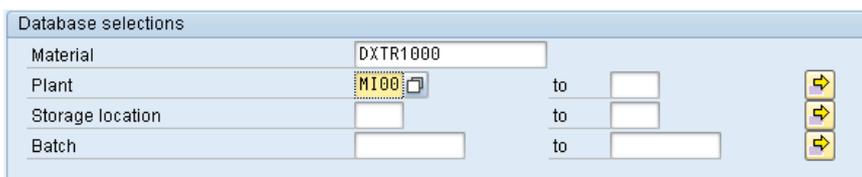
Use the far-right icon  to select the tab Sales material by description. Enter **UE00** for Sales Organization, **WH** for Distribution Channel and Material *### (e.g. *002 if your number is 002). Then click the enter icon  to find the list of materials.

UE00
WH
*###



Material description	Language	SOrg.	DChl	Material
AIR PUMP	EN	UE00	WH	PUMP1000
DELUXE TOURING BIKE (BLACK)	EN	UE00	WH	DXTR1000
DELUXE TOURING BIKE (RED)	EN	UE00	WH	DXTR3000
DELUXE TOURING BIKE (SILVER)	EN	UE00	WH	DXTR2000
ELBOW PADS	EN	UE00	WH	EPAD1000
FIRST AID KIT	EN	UE00	WH	FAID1000
KNEE PADS	EN	UE00	WH	KPAD1000
MEN'S OFF ROAD BIKE	EN	UE00	WH	ORMN1000
OFF ROAD HELMET	EN	UE00	WH	OHMT1000
PROFESSIONAL TOURING BIKE (BLACK)	EN	UE00	WH	PRTR1000
PROFESSIONAL TOURING BIKE (RED)	EN	UE00	WH	PRTR3000
PROFESSIONAL TOURING BIKE (SILVER)	EN	UE00	WH	PRTR2000
REPAIR KIT	EN	UE00	WH	RKIT1000
ROAD HELMET	EN	UE00	WH	RHMT1000
T-SHIRT	EN	UE00	WH	SHRT1000
WATER BOTTLE	EN	UE00	WH	BOTL1000
WATER BOTTLE CAGE	EN	UE00	WH	CAGE1000
WOMEN'S OFF ROAD BIKE	EN	UE00	WH	ORWN1000

Double-click on the Deluxe Touring Bike (black) to select it.



Database selections			
Material	DXTR1000		
Plant	M100	to	
Storage location		to	
Batch		to	

With the material number entered from the search list, enter **M100** for Plant. Then click on the execute icon  to look at the stock level.

M100

Stock Overview: Basic List

Selection

Material: DXTR1000 Deluxe Touring Bike (black)
 Material Type: FERT Finished Product
 Unit of Measure: EA Base Unit of Measure: EA

Stock Overview

Client/Company Code/Plant/Storage Location/Batch/Special Stock Unrestricted use Qual. inspection

Full	100.000	
US00 Global Bike Inc.	100.000	
MI00 DC Miami	100.000	
FG00 Finished Goods	100.000	

This report gives stock levels for the DC in Miami.

You can get more detail on the stock of black Deluxe Touring bikes. Select the Miami DC, then click on the Detailed Display icon. This will give you very specific information about the inventory of black Deluxe Touring bikes.

Stock Overview: Basic List

Stock Pint
Pint MI00

Pint

Stock Type	Stock
Unrestricted use	100.000
Qual. inspection	0.000
Returns	0.000
On-Order Stock	0.000
Consgt ordered	0.000
Reserved	0.000
Stck trans.(pInt)	0.000
Transfer (SLoc)	0.000
Consgt unrestr.	0.000
Consgt qual.insp.	0.000
GR Blocked Stock	0.000
Cust. inquiries	0.000
Cust. quotations	0.000
Sales orders	5.000
Cust.sched.agmts	0.000
Cust. contracts	0.000
Deliv. w/o charge	0.000

Note the 5 bikes that are part of the sales order. Click on the enter icon  to close the Detailed Display window, then click on the back icon  to return to the main screen.

Use the search function to enter the material number for the Professional Touring bike (black). Click on the execute icon  and review the stock level for this bike. Click on the exit icon  to return to the SAP Easy Access screen.

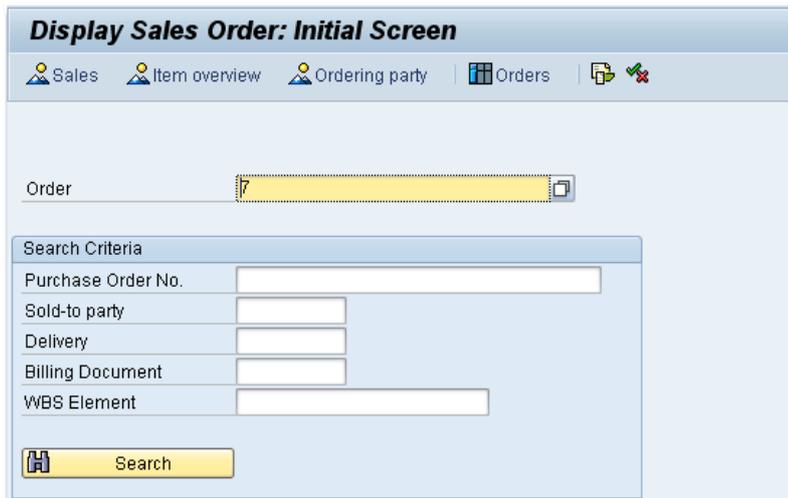
8) Display Sales Order

To display a sales order, follow the menu path:

Logistics ► Sales and Distribution ► Sales ► Order ► Display

This will produce the following screen.

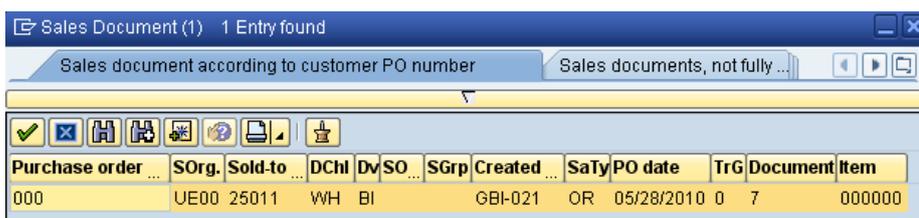
Menu
path



To make sure you have the correct sales order number, use the search function to find it. Click on the order field, then click on the search icon . This will bring up the search pop-up window.

After entering your PO number ###, click on the enter icon  to get a list of sales orders.

###



After double-clicking on your sales order number, click on  to display the sales order. This will produce the following sales order items.

All items						
Item	Material	Order Quantity	Un	S	Description	Customer Material Num
10	DXTR1000		5	EA	Deluxe Touring Bike (black)	
20	PRTR1000		2	EA	Professional Touring Bike (black)	

Select the Professional Touring bike line item, then click on the display availability icon  to explore the stock for this item in detail.

Material: PRT1000 Professional Touring Bike (black)
 Plant: MI00 Avail. check: 02 Check.rule: A
 Base Unit: EA
 With reqmts qtys:

Totals display
 Receipts: 80
 Issues: 2 Confirmed issues: 2

Date	MRP e...	MRP element data	Rec./reqd qty	Confirmed	Cum. ATP qty
05/28/2010	Stock		80		78
05/28/2010	CusOrd	Totals record	2-	2	78
05/28/2010	SLocSt	F600	80		80

This screen shows that, in this case, there are actually 80 bikes in stock and the order we are displaying will use 2 of these.

Note Your numbers may be different. Clicking on the *Scope of check* icon will produce the following pop-up window.

Display Scope of Check

Availability check: 02 Individ.requirements
 Checking rule: A SD order

Stock overview <input type="checkbox"/> Include safety stock <input type="checkbox"/> Incl.stock in transfer <input type="checkbox"/> Incl.quality insp. stock <input type="checkbox"/> Include blocked stock <input type="checkbox"/> Include restricted-use stock <input type="checkbox"/> W/o subcontracting	In/outward movements <input checked="" type="checkbox"/> Incl.purchase orders <input type="checkbox"/> Incl. purch.requisitions <input type="checkbox"/> Incl. dependent reqs <input checked="" type="checkbox"/> Include reservations <input checked="" type="checkbox"/> Include sales reqmts <input checked="" type="checkbox"/> Include deliveries <input type="checkbox"/> Incl.ship.notificat. Incl.depen.reservat. <input type="checkbox"/> Do not check Incl.rel.order reqs <input type="checkbox"/> Do not check Incl. planned orders <input type="checkbox"/> Do not check Incl. production orders <input type="checkbox"/> Do not take into acc
Replenishment lead time <input checked="" type="checkbox"/> Check without RLT	Receipts in the past <input type="checkbox"/> Include receipts from past and future
Storage location inspection <input type="checkbox"/> No storage location inspection	

This screen displays the elements considered when performing the availability check. For example, Incl. purchase orders is selected, which means that a purchase order will be considered as available stock from its receipt date onward.

Click on the cancel icon  to close the pop-up window, then click on the back icon  to return to the overview screen.

Item	Material	Order Quantity	Un	S	Description	Customer Material Numb	ITCa
10	DXTR1000		5	EA	<input type="checkbox"/> Deluxe Touring Bike (black)		TAN
20	PRT1000		2	EA	<input type="checkbox"/> Professional Touring Bike (black)		TAN

After selecting the Deluxe Touring bike line and clicking on the item conditions icon , the following screen will be displayed.

Pricing Elements										
N...	CnTy	Name	Amount	Crcy	per	U...	Condition value	Curr.	Status	NumC...OUh
PR00		Price	3,000.00	USD		1 EA	15,000.00	USD		1 EA
		Gross Value	3,000.00	USD		1 EA	15,000.00	USD		1 EA
K004		Material	50.00	USD		1 EA	250.00	USD		1 EA
RA00		% Discount from Net	5.000	%			737.50	USD		0
		Discount Amount	197.50	USD		1 EA	987.50	USD		1 EA
		Rebate Basis	2,802.50	USD		1 EA	14,012.50	USD		1 EA
		Net Value for Item	2,802.50	USD		1 EA	14,012.50	USD		1 EA
		Net Value 2	2,802.50	USD		1 EA	14,012.50	USD		1 EA
		Total	2,802.50	USD		1 EA	14,012.50	USD		1 EA
SKT0		Cash Discount	0.000	%			0.00	USD		0
VPRS		Internal price	1,400.00	USD		1 EA	7,000.00	USD		1 EA
		Standard - USA/With	1,402.50	USD		1 EA	7,012.50	USD		1 EA

The details of the price calculation for the Deluxe Touring bike are displayed. Note the two discounts that were manually applied to this line item. Click on the back icon  twice to return to the overview screen. Click on the exit icon  to return to the SAP Easy Access screen.

9) Start Delivery Process

To start the process that will fulfill The Bike Zone's order, we need to create a delivery document. To do this, follow the menu path:

Logistics ► Sales and Distribution ► Shipping and Transportation ► Outbound Delivery ► Create ► Single Document ► With Reference to Sales Order

Menu path

This will produce the following screen.

Create Outbound Delivery with Order Reference

With Order Reference W/o Order Reference

Shipping point: San Diego

Sales order data

Selection date:

Order: 

From item:

To item:

Predefine delivery type

Delivery Type:

Enter **MI00** for Shipping Point. Enter a selection date **one week from today** (you can use **F4** to call up the calendar window).

If the sales order number is not entered automatically, you can search for your sales order number using the Sales documents according to customer PO number tab. Enter your PO number (###).

Then click on the enter icon .

MI00

one week from today

Item	Material	Plant	SLoc	Deliv. Qty	Un	Picked Qty	Un	Batch	B...	P/W	Stag. Date	M...	Val. Type	Description
10	DXTR1000	M100		5	EA		EA		A		05/28/2010 00:00			Deluxe Touring Bike (black)
20	PRTR1000	M100		2	EA		EA		A		05/28/2010 00:00			Professional Touring Bike (black)

Select the Deluxe Touring bike line, then click on the details icon , which will produce the following screen.

Processing | Material | Batch Split | Picking | Loading and Shipment | Foreign Trade/Customs | Financial Processing

Quantities and weights

Pick quantity: 0 EA
 Div. quantity: 5 EA
 Conversion: 1 EA
 Gross weight: 42,550 6
 Net weight: 42,550
 Volume:

Div. qty: 5 EA
 <-> 1 EA
 Over. Tol.: 0.0 % Unlimited
 Under. Tol.: 0.0 %

Material

Batch: Batch mgmt
 Trans. Group: 0001 On pallets
 Stor. cond.: DGProfile:
 Temp. conds:

Warehouse

Mat. Avail. Date: 05/28/2010 00:00
 Pick. stat: A Not yet picked
 WM status: No WM trnsf ord reqd
 Plant: M100 DC Miami
 Stor. Location:
 Storage Bin:

This screen shows that the order has not yet been picked. After clicking on , a delivery document will be created with a unique document number

Outbound delivery document number

Outbound Delivery 80000006 has been saved

Click on the exit icon  to return to the SAP Easy Access screen.

10) Check Stock Status

To check on the inventory for the bikes in the sales order for The Bike Zone, follow the menu path:

Logistics ► Materials Management ► Inventory Management ► Environment ► Stock ► Stock Overview

Menu path

This will produce the following screen.

Stock Overview: Company Code/Plant/Storage Location/Batch

Database selections

Material: DXTR1000
 Plant: M100 to
 Storage location: to
 Batch: to

If the Material and Plant fields are not automatically filled in, click on the Material field, then click on the search icon . Use the Sales material by description tab with **UE00** for Sales Organization, **WH** for Distribution Channel and ***###** for Material. Pick the black Deluxe Touring bike. Then, enter **MI00** in the Plant field.

UE00
WH
*###
MI00

When the Material and the Plant field are correctly filled (compare with the screenshot above), click on . This will produce the following screen.

Stock Overview: Basic List

Selection

Material:  Deluxe Touring Bike (black)
 Material Type: FERT Finished Product
 Unit of Measure: Base Unit of Measure: EA

Stock Overview

.....

    Detailed Display

Client/Company Code/Plant/Storage Location/Batch/Special Stock	Unrestricted use	Qual. inspection
Full	100.000	
US00 Global Bike Inc.	100.000	
MI00 DC Miami	100.000	
FG00 Finished Goods	100.000	

Select the Miami DC, then click on the  Detailed Display icon.

Stock Overview: Basic List

Stock: PInt
Plant: MI00

.....

PInt

Stock Type	Stock
Unrestricted use	100.000
Qual. inspection	0.000
Returns	0.000
On-Order Stock	0.000
Consgt ordered	0.000
Reserved	0.000
Stck trans.(pInt)	0.000
Transfer (SLoc)	0.000
Consgt unrestrict.	0.000
Consgt qual.insp.	0.000
GR Blocked Stock	0.000
Cust. inquiries	0.000
Cust. quotations	0.000
Sales orders	0.000
Cust.sched.agmts	0.000
Cust. contracts	0.000
Deliv. w/o charge	0.000
Schd.for delivery	5.000
Rcpt reservation	0.000

Note that the 5 bikes for The Bike Zone order are now showed as Schd. for delivery.

Click on the enter icon  to close the Detailed Display window.
 Click on the exit icon  to return to the SAP Easy Access screen.

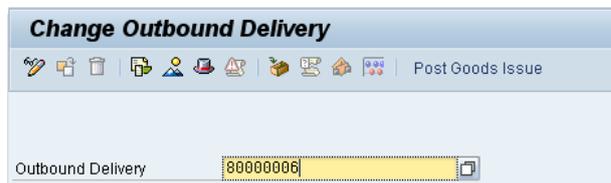
11) Pick Materials on Delivery Note

To record the picking of the material, we change the delivery document. To change the delivery document, follow the menu path:

Logistics ▶ Sales and Distribution ▶ Shipping and Transportation ▶ Outbound Delivery ▶ Change ▶ Single Document

Menu
path

This will produce the following screen.



If the Outbound Delivery document number is not entered automatically, you can search for your delivery document using the tab Outbound Delivery: Not Posted for Goods Issue (**MI00** for Shipping Point and **your customer number** for Ship-to party).

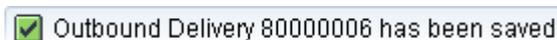
MI00
your
customer
number

After clicking on the enter icon , you will get the following screen.



Click on the picking tab, then enter **FG00** for SLoc (storage location) and the appropriate quantity for the picked quantity (**5** for DXTR1### and **2** for PRTR1###).
 Click on  to save the picking information. You should get the following message at the bottom-left corner of the screen.

FG00
5
2



Click on the exit icon  to return to the SAP Easy Access screen.

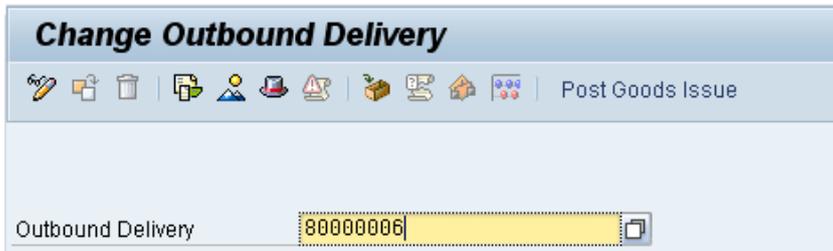
12) Post Goods Issue

To post the goods issue (change the possession of the material from GBI to The Bike Zone), follow the menu path:

Logistics ► Sales and Distribution ► Shipping and Transportation ► Outbound Delivery ► Change ► Single Document

Menu path

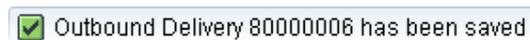
This will produce the following screen.



If the Outbound Delivery document number is not entered automatically, you can search for your delivery document using the tab Outbound Delivery: Not Posted for Goods Issue (**MI00** for Shipping Point and **your customer number** for Ship-to party).

MI00
your customer
number

With the correct delivery document number filled in, click on the Post Goods Issue icon. You should get the following message at the bottom-left corner of the screen.



Click on the exit icon  to return to the SAP Easy Access screen.

13) Check Stock Status

To see the impact that the goods issue for the bikes in the sales order for The Bike Zone has had on the inventory position of GBI, follow the menu path:

Logistics ► Materials Management ► Inventory Management ► Environment ► Stock ► Stock Overview

Menu path

This will produce the following screen.

Stock Overview: Company Code/Plant/Storage Location/Batch

Database selections

Material: DXTR1000

Plant: M100  to

Storage location: to

Batch: to

If the Material and Plant fields are not automatically filled in, click on the Material field, then click on the search icon . Use the Sales material by description tab with **UE00** for Sales Organization, **WH** for Distribution Channel and ***###** for Material. Pick the black Deluxe Touring bike. Then, enter **M100** in the Plant field.

UE00
WH
*###
M100

When the Material and the Plant field are correctly filled (compare with the screenshot above), click on . This will produce the following screen.

Selection

Material: DXTR1000  Deluxe Touring Bike (black)

Material Type: FERT Finished Product

Unit of Measure: EA Base Unit of Measure: EA

Stock Overview

      Detailed Display

Client/Company Code/Plant/Storage Location/Batch/Special Stock	Unrestricted use	Qual. inspection
Full	95.000	
US00 Global Bike Inc.	95.000	
MI00 DC Miami	95.000	
FG00 Finished Goods	95.000	

Note that the available inventory has changed. Select the Miami DC, then click on the  Detailed Display icon.

Stock Type	Stock
Unrestricted use	95.000
Qual. inspection	0.000
Returns	0.000
On-Order Stock	0.000
Consgt ordered	0.000
Reserved	0.000
Stck trans.(plnt)	0.000
Transfer (SLoc)	0.000
Consgt unrestr.	0.000
Consgt qual.insp.	0.000
GR Blocked Stock	0.000
Cust. inquiries	0.000
Cust. quotations	0.000
Sales orders	0.000
Cust.sched.agmts	0.000
Cust. contracts	0.000
Deliv. w/o charge	0.000
Schd.for delivery	0.000
Rcpt reservation	0.000

The inventory is reduced from before by the amount that used to appear as **Schd. for delivery**. Click on the enter icon  to close the window.

Click on the exit icon  to return to the SAP Easy Access screen.

14) Create Invoice for Customer

With the delivery complete, the customer can be invoiced. To do this, follow the menu path:

**Logistics ► Sales and Distribution ► Billing ► Billing Document
► Process Billing Due List**

Menu path

This will produce the following screen.

Maintain Billing Due List

 DisplayBillList
  DisplayVariants

Billing Data

Billing Date from to 04/24/2010
 Billing Type to
 SD Document to

Selection | **Default Data** | **Batch and Update**

Organizat. Data

Sales Organization
 Distribution channel to
 Division to
 Shipping point to

Customer Data

Sold-To Party to
 Destination country to
 Sort Criterion to

Enter **UE00** for Sales Organization and **your customer number** for Sold-To Party.

UE00
your customer number

If you do not remember your customer number, find it by using the F4 help in the Sold-To Party field and entering your individual number (###) in the Search term field and **Orlando** in the City field. Confirm with . Then, double-click on the one result row.

F4

Orlando

Then, click on the Display Bill List icon. This will produce the following screen.

S	BICat	SOrg	Billing Date	Sold-to pt	BILIT	DstC	Document	DChl	Dv	DocCa	Address	Sold-to party	Sold-to Loc
X	L	UE00	05/28/2010	25011	F2	US	80000006	WH	BI	J	71072	The Bike Zone	Orlando

Select you line item and click on Individual billing document, which will produce the following screen.

Invoice (F2) Create

Net Value: \$000000001

Payer: 25011 The Bike Zone / 2144 N Orange A

Billing Date: 05/28/2010

Item	Description	Billed Quantity	SU	Net value	Material	Cost
10	Deluxe Touring Bike (black)		5 EA	14,012.50	DXTR1000	7,000.00
20	Professional Touring Bike (black)		2 EA	6,000.00	PRTR1000	3,000.00

To setup printing of the invoice, follow the pull-down menu path:

Goto ► Header ► Output

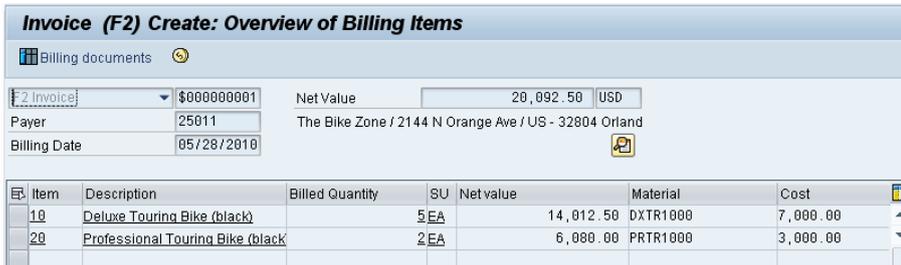
which will call up the Output screen.

Enter **RD00** (Invoice) for Output and select **Print output** for Medium, then click on the Communication method icon. This will produce the following screen.

RD00
Print output

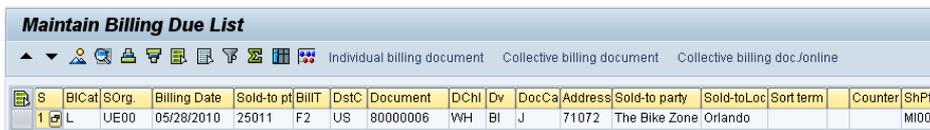
Select **Send immediately (when saving the application)** for Dispatch time so that the invoice will print immediately, then click on the  icon twice.

Send immediately (when saving the application)



Item	Description	Billed Quantity	SU	Net value	Material	Cost
10	Deluxe Touring Bike (black)	5 EA		14,012.50	DXTR1000	7,000.00
20	Professional Touring Bike (black)	2 EA		6,080.00	PRTR1000	3,000.00

Click on the save icon  to return to the Maintain Billing Due List screen.



S	BICat	SOrg.	Billing Date	Sold-to pt	BIIT	DstC	Document	DChl	Dv	DocCa	Address	Sold-to party	Sold-to Loc	Sort term	Counter	ShPt
1	L	UE00	05/28/2010	25011	F2	US	80000006	WH	BI	J	71072	The Bike Zone	Orlando			M100

Note that the highlight is turned off on the line, and there is a message at the bottom of the screen.

Document 90000002 has been saved

Click on the exit icon  to return to the SAP Easy Access screen.

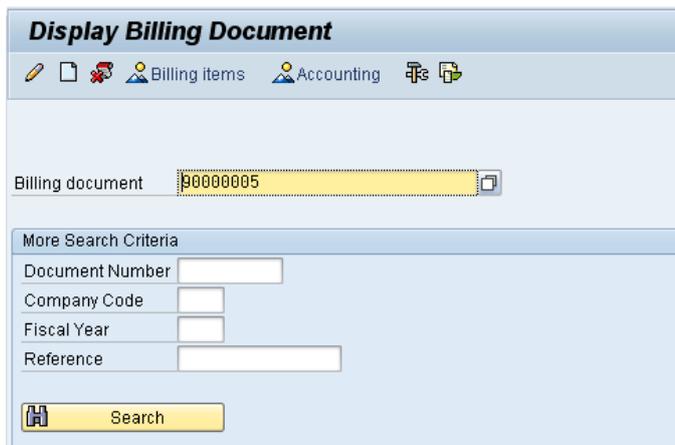
15) Display Billing Document and Customer Invoice

The invoice that will be sent to The Bike Zone can be viewed by following the menu path:

Logistics ► Sales and Distribution ► Billing ► Billing Document ► Display

Menu path

This will produce the following screen.



If the billing document number is not entered automatically, you can find it from the document flow in your sales order. You may use the transaction **VA03** to view your sales order.

F4

Follow the pull-down menu path:

Billing document ► Issue Output To

This will produce the following pop-up window.

Message type	Name	Created on	Created at	Process.status	Transm. Medi...
RD00	Invoice	05/28/2010	03:33:22	1	1

Make sure the invoice line is selected, then click on the Print preview icon . This will produce the following screen.

Conditions		Weight - Volume	
Payment	Up to 05/28/2010 without deduction	Gross Weight	57,170 G
		Net Weight	57,170 G
Delivery	FOB Miami		

Invoice Details					
Item	Material	Quantity	Price	Price Unit	Value
000010	DXTR1000	5 EA			
	Deluxe Touring Bike (black)				
	Gross Value		3,000.00 USD	1 EA	15,000.00
	Material		50.00- USD	1 EA	250.00-
	% Discount from Net		5.00- %		737.50-
	Net Value for Item		2,802.50 USD	1 EA	14,012.50
000020	PRTR1000	2 EA			
	Professional Touring Bike (black)				
	Gross Value		3,200.00 USD	1 EA	6,400.00
	% Discount from Net		5.00- %		320.00-
	Net Value for Item		3,040.00 USD	1 EA	6,080.00
	Invoice Amount				20,092.50
	Amount Eligible for Cash				20,092.50

After reviewing the invoice that will be printed and sent to The Bike Zone, click on the back icon , then close the pop-up window by clicking on the cancel icon .

To review the accounting implications of this sale, click on the  Accounting icon. This will produce the following screen.

Display Document: Data Entry View


 Display Currency
  General Ledger View

Data Entry View

Document Number: 90000006 Company Code: US00 Fiscal Year: 2010
 Document Date: 05/28/2010 Posting Date: 05/28/2010 Period: 5
 Reference: 000 Cross-CC no.:
 Currency: USD Texts exist: Ledger Group:



C...	Itm	PK	S	Account	Description	Amount	Curr.	Tx
US00	1	01		25011	The Bike Zone	20,092.50	USD	
	2	50		600000	Sales Revenue	15,000.00-	USD	
	3	40		610000	Sales Discount	250.00	USD	
	4	40		610000	Sales Discount	737.50	USD	
	5	50		600000	Sales Revenue	6,400.00-	USD	
	6	40		610000	Sales Discount	320.00	USD	

Review the accounting postings due to this sales order.

Click on the exit icon  until you are on the SAP Easy Access screen.

16) Post Receipt of Customer Payment

After The Bike Zone mails its payment, it needs to be recorded. To do this, follow the menu path:

Accounting ► Financial Accounting ► Accounts Receivable ► Document Entry ► Incoming Payments

Menu path

This will produce the following screen.

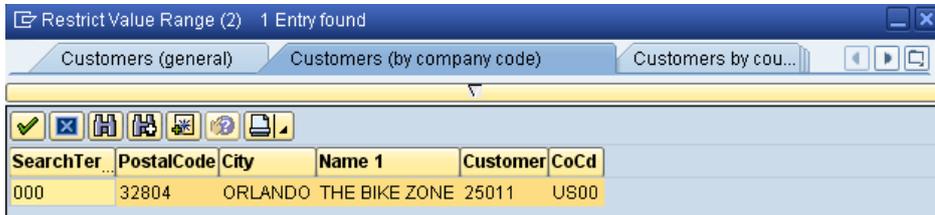
Use F4 and Enter to enter the **current date** for the document date. Enter **US00** for Company Code, **USD** for Currency/Rate, **100000** for Account, and **20,092.50** for amount.

current date
US00
USD
100000
20,092.50

Under Open item selection, click on the account field, then the search icon , to get the following search pop-up window.

As The Bike Zone was created with the data set number (###) as a search term, you can use this and the City **Orlando** to find your Bike Zone customer. After entering ### and Orlando on the Customers (by company code) tab, click on the enter icon  and you will get the following results.

Orlando



SearchTer...	PostalCode	City	Name 1	Customer	CoCd
000	32804	ORLANDO	THE BIKE ZONE	25011	US00

After double-clicking on Bike Zone to select it, click on the Process open items button. You will get the following screen.



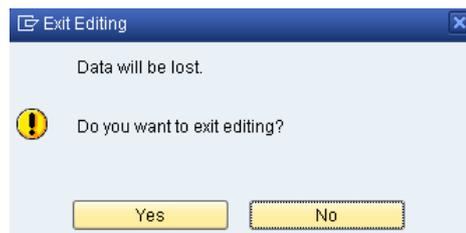
Document ...	D...	Document ...	P...	Bus...	Day...	USD Gross	Cash discont	Cash...
900000006	RV	05/28/2010	01	BI00	0	20,092.50		

If the Not assigned field does not show a 0.00 balance, double-click on the **20,092.50** amount to assign the payment to the accounts receivable. Then click on the save icon  to post the payment. The system will assign a document number automatically.

Document 1400000006 was posted in company code US00

Payment document number

Click on the exit icon , which will produce the following pop-up window.



There is no data to be lost, so click on the **Yes** icon to return to the SAP Easy Access menu.

Yes

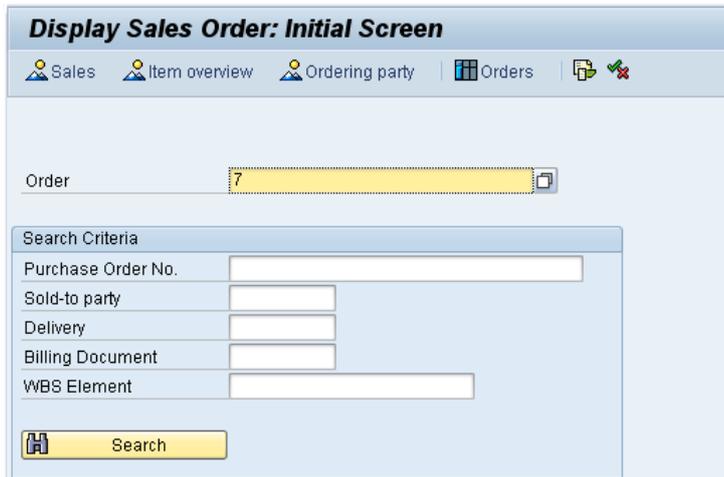
17) Review Document Flow

To display the document flow, follow the menu path:

Logistics ► Sales and Distribution ► Sales ► Order ► Display

This will produce the following screen.

Menu path



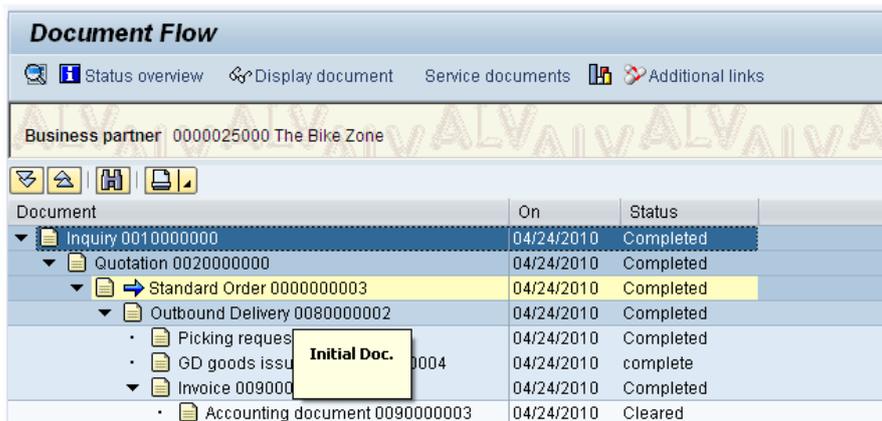
If your sales order is not displayed, you can search for your sales order number using the Sales document according to customer PO number tab. Enter your PO number (###).

###

To access the document flow tool, follow the pull-down menu path:

Environment ► Display document flow

The document flow for The Bike Zone will look like the following.



Document	On	Status
▼ Inquiry 0010000000	04/24/2010	Completed
▼ Quotation 0020000000	04/24/2010	Completed
► Standard Order 0000000003	04/24/2010	Completed
▼ Outbound Delivery 0080000002	04/24/2010	Completed
· Picking request 0000000004	04/24/2010	Completed
· GD goods issue 0000000004	04/24/2010	complete
▼ Invoice 0090000000	04/24/2010	Completed
· Accounting document 0090000003	04/24/2010	Cleared

Review the documents for The Bike Zone's order. You may select any document and click on **Display document** to look at it in detail.

Click on the exit icon  to return to the SAP Easy Access screen.

5. 实验方式

每位同学独立上机操作实验，实验指导教师现场指导。

实验 2：物料管理

1. 实验目的

了解并执行一个采购流程周期。

2. 实验环境

- 1) 接入 Internet 的实验主机；
- 2) Windows 7 操作系；
- 3) SAP GUI。

3. 实验内容

为了操作一个完整的采购流程，学生需要在 GBI 公司内担任不同的角色，例如 采购代理人，仓库工人，会计文员。总体而言，学生主要对物料管理（MM）和财务会计（FI）部门的具体工作进行操作。在开始采购流程之前，学生需要在林肯创建一个新的供应商（中西部供应公司）。然后，为系统中的交易商品（链锁）创建新的主记录。在检查库存（空）后，通过创建采购申请开始采购流程，生成报价请求并输入来自不同供应商的报价，包括新供应商。在评估并接受中西部供应的报价后，学生创建一个参考询价的采购订单，然后过帐收货并验证库存的实际收货，创建两个部分发票之后就可以付款到供应商并查看总帐科目。

4. 实验步骤

- 1) Create New Vendor

To create a new vendor, follow the menu path:

**Logistics ► Materials Management ► Purchasing ►
Master Data ► Vendor ► Central ► Create**

Menu path

This will produce the following screen.

Create Vendor: Initial Screen	
Vendor	<input type="text"/>
Company Code	US00
PurchasingOrganization	US00
Account group	KRED
Reference	
Vendor	<input type="text"/>
Company code	<input type="text"/>
PurchasingOrganization	<input type="text"/>

Leave the vendor field blank. The system will generate a new number. Enter **US00** for Company Code, **US00** for Purchasing organization, and **KRED** as Account Group. Then, click on .

US00

US00

KRED

In the Create Vendor: Address screen, select **Company** as Title, enter **Mid-West Supply** as Name, and your number (###) for Search term. As Street enter 335 W Industrial Lake Dr, as Postal code enter **68516**, and **Lincoln** for City. Further specify **US** (Country) and **NE** (Region). As communication language choose **English**. Compare your entries with the screen shown below.

Company

Mid-West Supply

###

335 W Industrial Lake Dr

68528 Lincoln

US

NE

English

Create Vendor: Address	
Vendor	INTERNAL
  	
  	
Name	
Title	Company
Name	Mid-West Supply
Search Terms	
Search term 1/2	000
Street Address	
Street/House number	335 W Industrial Lake Dr
Postal Code/City	68528 Lincoln
Country	US USA Region NE Nebraska
Time zone	CST
PO Box Address	
PO Box	<input type="text"/>
Postal code	<input type="text"/>
Company postal code	<input type="text"/>
Communication	
Language	EN English
<input type="button" value="Other communication..."/>	

Then, click on  or  until you see the Create Vendor: Control screen.

In the Create Vendor: Control screen, in the Tax information field group enter **12-**

3456### as Tax Number 2 – remember to replace **###** with your number. Confirm your entry and skip the next screen (Create Vendor: Payment transactions) by clicking  or  twice.

12-3456###

In the Create Vendor: Accounting information Accounting screen, enter Recon. Account **300000**. Then click on  or .

300000

In the Create Vendor: Payment transactions Accounting screen, enter Pay Terms **0001**, and select **Chk double inv.** Then click on  or .

0001

Chk double inv.

In the Create Vendor: Correspondence Accounting screen, enter **your name** as Clerk at vendor. Then click on  or .

your name

In the Create Vendor: Purchasing data screen, enter **USD** as Order currency and **0001** for Terms of paymnt. Then click on  or .

USD

0001

There is no data to be entered in the Create Vendor: Partner functions screen.

Click on  to save your vendor master record. The system will automatically assign a unique number for your vendor.

Vendor master number

Click on the exit icon  to return to the SAP Easy Access screen.

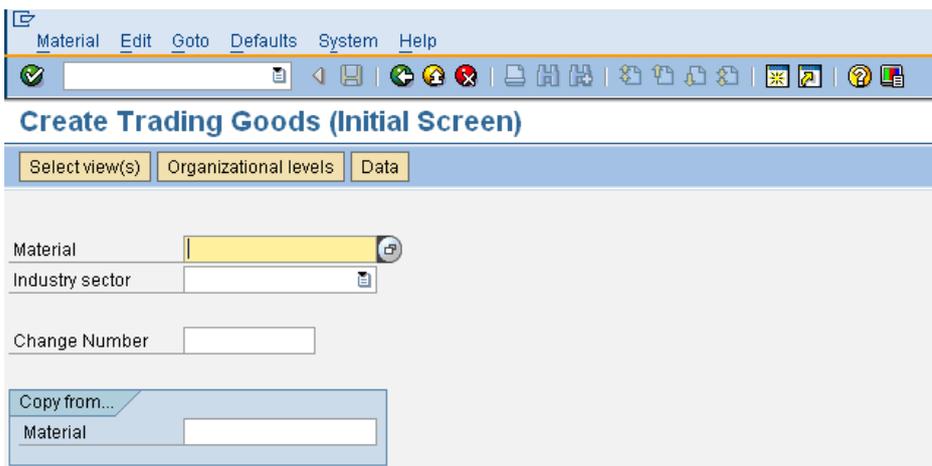
2) Create Material Master for Trading Goods

To create a trading good material master record, follow the menu path:

**Logistics ► Materials Management ► Material Master ► Material
► Create (Special) ► Trading Goods**

Menu path

This will produce the following screen.



In the Material field, type in **CHLO1###** (replace ### with your number) and select **Retail** as an Industry sector. Then, click on  or press Enter.

CHLO1###
Retail

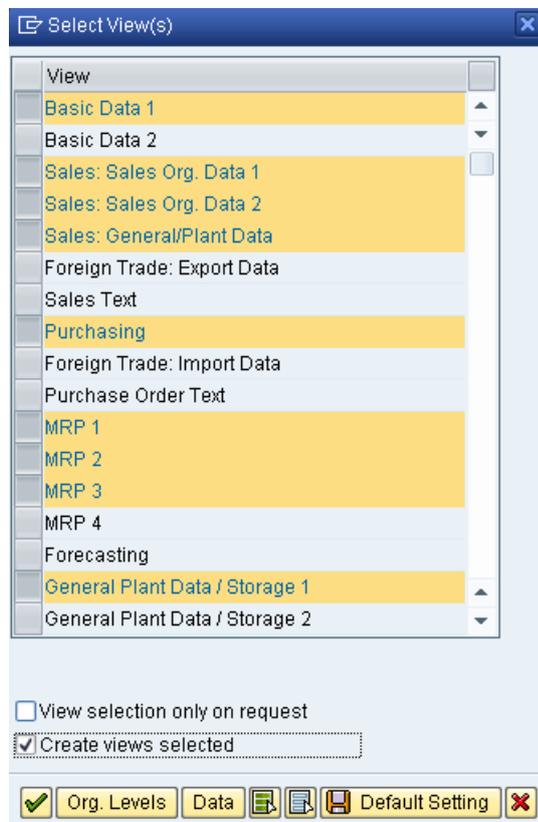
On the next screen, select the following views by clicking on the square in front of the respective rows:

- **Basic Data 1** - **MRP 1**
- **Sales: Sales Org. Data 1** - **MRP 2**
- **Sales: Sales Org. Data 2** - **MRP 3**
- **Sales: General/Plant Data** - **General Plant Data/Storage 1**
- **Purchasing** - **Accounting 1**

Basic Data 1
Sales: Sales Org. Data 1
Sales: Sales Org. Data 2
Sales: General/Plant Data
Purchasing
MRP 1
MRP 2
MRP 3
General Plant Data / St. 1
Accounting 1

Also, select **Create views selected**. Then, click on .

Create views selected



On the Organizational Levels screen, enter plant **M100** (Miami), Stor. Location **TG00** (Trading Goods), Sales Org. **UE00** (US East), and Distr. Channel **WH** (Wholesale). Compare with the screen shown below.

M100
TG00

Then, click on .

UE00

WH



On the *Basic Data 1* tab, enter **Chain Lock** as a description (text field next to the material number). As Base Unit of Measure, use the F4 help to find and select **each (EA)**. In the Material Group field, select **UTIL** (Utilities). As division, choose **AS** (Accessories).

Basic Data 1

Chain Lock

EA

UTIL

AS

In the Gross Weight field and in the Net Weight field, enter **65** and select **Ounce (OZ)** as Weight unit. Then press Enter or click on .

65

65

OZ

On the *Sales: sales org. 1* tab, in the Delivering Plant field use the F4 help to find and select the Miami plant (**MI00**). In the Tax data field group, in the left Tax classification column (the one that is editable = white background colour) select Exempt (**0**) for all three tax categories.

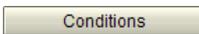
Sales: sales org. 1

MI00

0

0

0

Click on . On the following screen, enter Scale quantity **1** and Amount **69.00**. Compare your entries with the screen below, then click on  to return to the Sales: sales org. 1 view. There, press Enter or click on .

1

69.00

Validity		Control	
Valid From	04/28/2010	ScaleBasis	C Quantity scale
Valid to	12/31/9999	Check	A Descending

Scales						
Scale Type	Scale quantity	U...	Amount	Unit	per	UoM
From		1 EA	69.00	USD		1 EA

On the *Sales: sales org. 2* tab, select Matl statistics grp **1**. Then press Enter.

Sales: sales org. 2
1

On the *Sales: General/Plant* tab, select Availability check **02** (Individual requirements) and use the F4 help to choose Tansp. Grp **0001** (On pallets) and LoadingGrp **0002** (Handcart).

Sales: General/Plant
02
0001
0002

On the *Purchasing* tab, enter Purchasing Group **N00** (North America).

Purchasing
N00

On the *MRP 1* tab, select MRP type **PD** (MRP), MRP Controller **000**, Lot size **EX** (Lot-for-lot order quantity) and Minimum Lot Size **10**.

MRP1
PD 000
EX 10

On the *MRP 2* tab, enter Planned Deliv.Time **6** (days) and select SchedMargin key **001**.

MRP 2
6
001

On the *MRP 3* tab, check if the Availability check is set correctly to **02**. Then, press Enter. Skip the *Plant data / stor. 1* view by clicking on .

MRP 3
02

On the *Accounting 1* tab, select Valuation Class **3100** (Trading Goods), enter Moving price **33.50**.

Accounting 1
3100
33.50

Then, click on  to save your material.

Click on the exit icon  to return to the SAP Easy Access screen.

3) Extend Material Master for Trading Goods

To create new views for an existing trading good, follow the menu path:

Logistics ► Materials Management ► Material Master ► Material ► Create (Special) ► Trading Goods

Menu path

Enter your material number **CHLO1###** (again, replace **###** with your three-digit number) in the Material field. In the Copy from... field group, enter **CHLO1###** in the Material field again. Then, press Enter.

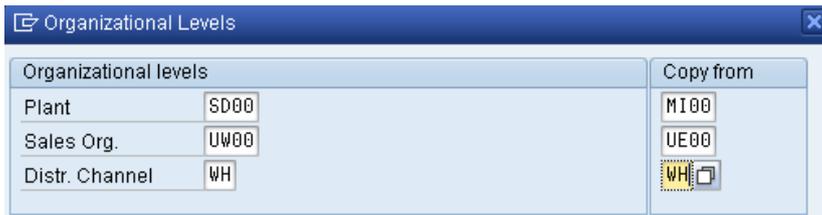
CHLO1###
CHLO1###

In the Select View(s) window, highlight all **three Sales views**, make sure the indicator **Create views selected** is checked, and click on .

3 Sales views
Create views selected

In the Organizational Levels window, on the left side (Organizational levels) enter Plant **SD00**, Sales Org. **UW00** and Distr. Channel **WH**. On the right side (Copy from), enter Plant **MI00**, Sales Org. **UE00** and Distr. Channel **WH**. Before pressing Enter, compare your entries with the screen shown below.

SD00
MI00
UW00
UE00
WH
WH



The system will take you to the *Sales: sales org. 1* view. Note that sales data has been copied from views created for the Wholesale distribution channel. The system displays a message saying that the material already exists and will be extended.

The material already exists and will be extended

Change Delivering Plant MI00 to **SD00**. Then, click on . Enter Scale quantity **1** and amount **65.00**. Click on and save with .

Sales: sales org. 1
SD00
1 65.00

Finally, click on the exit icon to return to the SAP Easy Access screen.

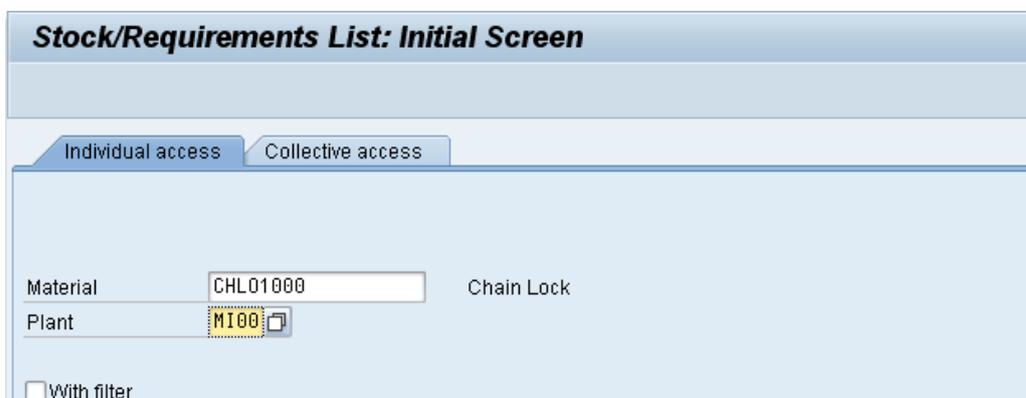
4) Display Stock/Requirements List

To display the stock/requirements list, follow the menu path:

Logistics ► Materials Management ► Inventory Management ► Environment ► Stock ► Stock/Requirements List

Menu path

This will produce the following screen.



In the Material field, enter the number of your new chain lock trading good **CHLO1###** (replace ### with your number) and Plant **MI00**. Then click on . Your stock/requirements list should look similar to the screen below.

CHLO1###
MI00

A... Date	MRP e...	MRP element data	Rescheduli...	E... Receipt/Reqmt	Available Qty
04/29/2010	Stock				0

Click on the exit icon to return to the SAP Easy Access screen.

5) Create Purchase Requisition

To create a purchase requisition, follow the menu path:

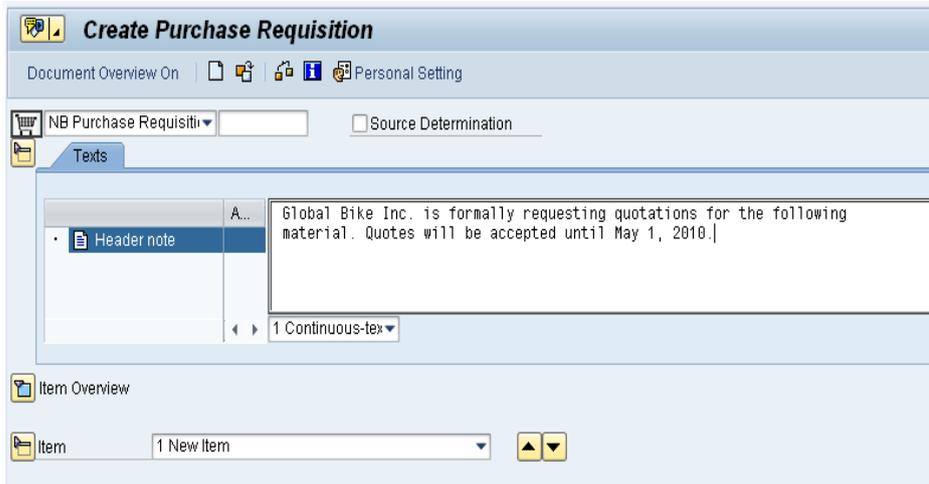
Logistics ► Materials Management ► Purchasing ► Purchase Requisition ► Create

Menu path

This will produce the following screen.

Select  Header to expand the header.

In the text field, type the Header note: “Global Bike Inc. is formally requesting quotations for the following material. Quotes will be accepted until [1st day of the next month].”



Select  Item Overview to expand the item overview.

Enter Material **CHLO1###** (replace ### with your number) and Quantity **200**. As Delivery Date select or enter the day **three months from today**. Then, enter Plant **MI00**, Stor. loc. **TG00**, and PGr. **N00**.

CHLO1###
200
3 months
from today
MI00
TG00
N00

After clicking on  compare your screen with the one below.

St...	Item A	Material	Short Text	Quantity	Unit	C	Delivery Date	Matl Group	Plant	Stor. Loc.	PGr
	10	CHLO1000	Chain Lock	200	EA	D	07/29/2010	Utilities	DC Miami	Trading Goc	N00

Then, click on  to save your purchase requisition. The system will create a unique document number.

 Purchase requisition number 0010000000 created

Purchase
requisition
document
number

Click on the exit icon  to return to the SAP Easy Access screen

6) Display Stock/Requirements List

To display the stock/requirements list again, follow the menu path:

Logistics ► Materials Management ► Inventory Management ► Environment ► Stock ► Stock/Requirements List

Menu path

If not already defaulted in, enter your Material **CHLO1###** and Plant **MI00**. Then click on . Your stock/requirements list should now look similar to the screen below.

CHLO1##

#

MI00



Stock/Requirements List as of 14:29 hrs

Show Overview Tree     

Material **CHLO1000** Chain Lock
Plant **MI00** MRP type **PD** Material Type **HAWA** Unit **EA**

A...	Date	MRP e...	MRP element data	Rescheduli...	E...	Receipt/Reqmt	Available Qty	Stor...
	04/29/2010	Stock					0	
	07/29/2010	PurRqs	0010000000/00010 *		20	200	200	T600

Click on the exit icon  to return to the SAP Easy Access screen.



7) Create Request for Quotation

To create an RFQ, follow the menu path:

**Logistics ► Materials Management ► Purchasing ►
RFQ/Quotation ► Request for Quotation ► Create**

Menu path

This will produce the following screen.

Create RFQ : Initial Screen	
<input type="checkbox"/> Reference to PReq	<input type="checkbox"/> Reference to Outline Agreement
RFQ Type	AN
Language Key	EN
RFQ Date	04/29/2010
Quotation Deadline	05/01/2010
RFQ	
Organizational Data	
Purch. Organization	US00
Purchasing Group	N00
Default Data for Items	
Item Category	
Delivery Date	T
Plant	M100
Storage Location	
Material Group	
Req. Tracking Number	

Enter RFQ Type **AN**, **today's date** as RFQ Date, and the **first day of the next month** as Quotation Deadline.

AN
today's date
1st day of next
month

In the Organizational Data field group, enter Purch. Organization **US00** and Purchasing Group **N00**.

US00
N00

In the Default Data for Items, enter Plant **M100**. Then, select

Reference to PReq

which will produce the following screen.

M100

If your Purchase Requisition number is not already entered, use the F4 help to find the number of your purchase requisition. Then, click on .

In the Create RFQ: Selection List: Purchase Requisitions screen, enter SLoc (Storage Location) **TG00**. Click on to select all items. Then, click on to adopt all item information into the RFQ.

TG00

In the Create RFQ : Item 00010 screen, click on to display the RFQ header data. Enter **RFQ1###** as *Coll. No.* Remember to replace ### with your three-digit number. After comparing your entry with the screen below, click on to display the line items.

RFQ1 ###

In the Create RFQ : Item Overview screen, review the line items and ensure they are correct. Then, select to display the vendor address.

In the Create RFQ: Vendor Address screen, use the **F4** help to find your vendor Mid-West Supply. In order to do so, use the fields Search term (**###** = your number) and City (**Lincoln**) and double-click on the result row to insert the

F4

number into the Vendor field. Then, click on  which will populate your vendor's data into corresponding fields.

Lincoln

Click on  to save your RFQ. A warning message will appear. Press **Yes** to save anyway.

Yes

The SAP system will create a unique document number.

 RFQ created under the number 60000000000

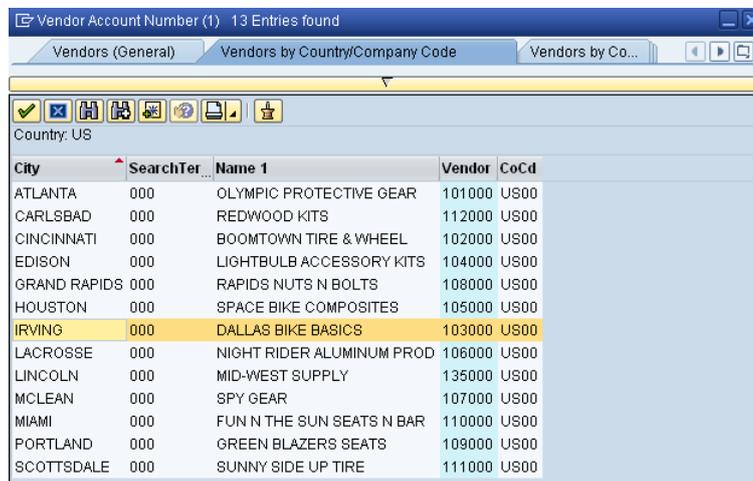
RFQ document
number

Stay in the same screen and repeat the last step twice to create the same RFQ for our vendors Dallas Bike Basics and Spy Gear.

Dallas Bike
Basics
Spy Gear

In order to find your vendor, in the Vendor field use the F4 help again. This time, enter **US** for country and your number (###) in the Search term field. Then, press Enter to display your set of US vendors (see list below).

US
###



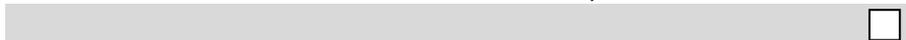
City	SearchTer...	Name 1	Vendor	CoCd
ATLANTA	000	OLYMPIC PROTECTIVE GEAR	101000	US00
CARLSBAD	000	REDWOOD KITS	112000	US00
CINCINNATI	000	BOOMTOWN TIRE & WHEEL	102000	US00
EDISON	000	LIGHTBULB ACCESSORY KITS	104000	US00
GRAND RAPIDS	000	RAPIDS NUTS N BOLTS	108000	US00
HOUSTON	000	SPACE BIKE COMPOSITES	105000	US00
IRVING	000	DALLAS BIKE BASICS	103000	US00
LACROSSE	000	NIGHT RIDER ALUMINUM PROD	106000	US00
LINCOLN	000	MID-WEST SUPPLY	135000	US00
MCLEAN	000	SPY GEAR	107000	US00
MIAMI	000	FUN N THE SUN SEATS N BAR	110000	US00
PORTLAND	000	GREEN BLAZERS SEATS	109000	US00
SCOTTSDALE	000	SUNNY SIDE UP TIRE	111000	US00

First, double-click on Dallas Bike Basics to select it. Back on the Create RFQ : Vendor Address screen, press Enter and save the second RFQ. Again, accept the system warning message with **Yes**.

Yes

Repeat the same procedure to create a third RFQ (for Spy Gear) and save it.

Click on the exit icon  to return to the SAP Easy Access screen.



8) Maintain Quotations from Vendors

To maintain quotations from vendors, follow the menu path:

**Logistics ► Materials Management ► Purchasing ►
RFQ/Quotation ► Quotation ► Maintain**

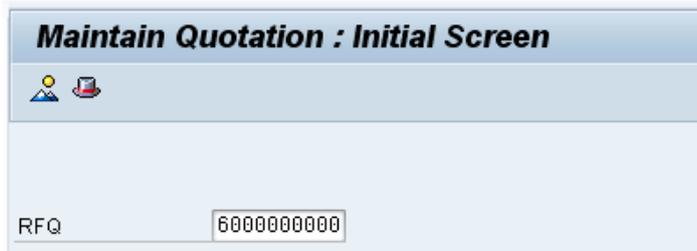
Menu path

Use the **F4** help in the RFQ field to find and enter the RFQ number from your Mid-West Supply vendor. On the Purchasing Documents per Vendor tab, you need to find and select your vendor Mid-West Supply first. Position your cursor in the Vendor field and press **F4** again. Start the search after typing in Country **US** and your three-digit number (**###**) as Search term.

F4
F4
US
###

Double-click on your new vendor to select it. Now that your vendor number is put in the Vendor field, press Enter or click on  to find the first RFQ number you have created in the last task.

Double-click on your RFQ to populate the number into the RFQ field on the Maintain Quotation : Initial Screen. Then click on  or press Enter.



In the Maintain Quotation : Item Overview screen, enter a net price of **32.00 USD**. Click on  to select all items.

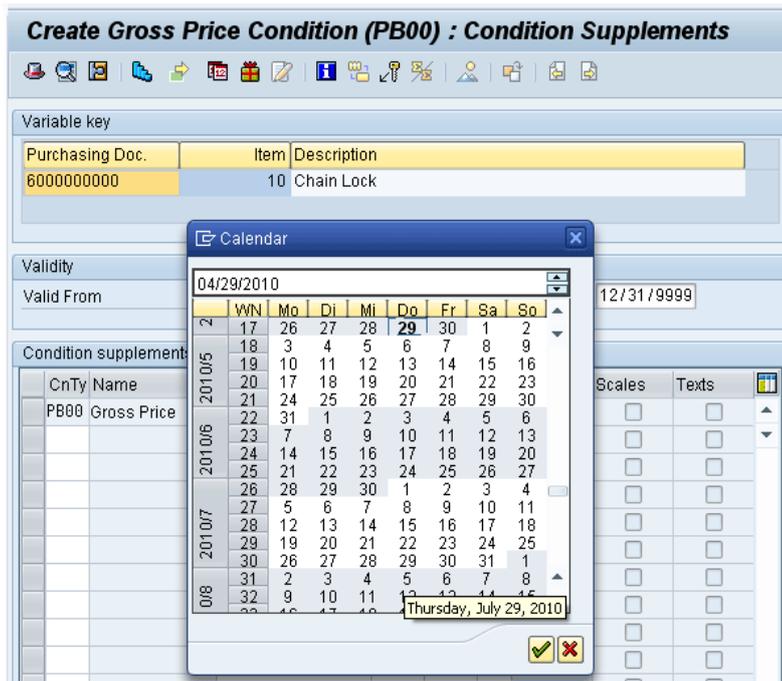
32.00



Item	Material	Short Text	RFQ Quantity	O... C Deliv. Date	Net Price	Per	O...	Mat. Grp	Pint	SLoc
10	CHL01000	Chain Lock	200	EA D 07/29/2010	32	1 EA	UTIL	MI00	T600	

Then, click on  to display conditions. Here, other discounts and surcharges included in the quotation could be specified. In our case, just set the Valid to data to **three months from today**.

3 months
from today



Click on  to go back to the line item overview. Then, click on  to save your maintained quotation for your Mid-West Supply vendor. The system acknowledges the changes to your first quotation with a success message.

 Quotation for RFQ 6000000000 maintained

Repeat this process for the other two RFQs you created. Make sure you use the above-described search criteria to find the vendors for your number (###). Enter the following prices:

Dallas Bike Basics **36.50 USD**
 Spy Gear **35.00 USD**

Make sure you save both RFQs and receive the system success messages.

Dallas Bike
 Basics
 36.50
 Spy Gear
 35.00

Click on the exit icon  to return to the SAP Easy Access screen.



9) Evaluate quotations on price

To flag/reject quotations, follow the menu path:

Logistics ► Materials Management ► Purchasing ► RFQ/Quotation ► Quotation ► Price Comparison

Menu path

This will produce the following screen again.

Enter Purchasing Organization **US00**, and Collective RFQ **RFQ1###**. Select **Mean Value Quotation** and **Determine Effective Price**. Then, select to execute the price comparison. This shows the following screen.

US00
RFQ1###
Mean Value
Quotation
Determine
Effective Price

Price Comparison List in Currency USD					
Quotation Material Vendor Additional Info					
Material	Quot. :	6000000000	6000000002	6000000001	MEAN
Sh. Text	Bidder:	135000	107000	103000	
Qty. in Base Unit	Coll. No. :	RFQ1000	RFQ1000	RFQ1000	
CHL01000	Val. :	6,400.00	7,000.00	7,300.00	6,900.00
Chain Lock	Price:	32.00	35.00	36.50	34.50
200 EA	Rank:	1 93 %	2 101 %	3 106 %	
Total Quot.	Val. :	6,400.00	7,000.00	7,300.00	6,900.00
	Rank:	1 93 %	2 101 %	3 106 %	

Determine the Vendor that you are going to do business with (the lowest priced quotation) by rejecting the other two. To do so, double-click on the quotation number with 36.50 USD. This will produce the following screen.

Maintain Quotation : Item Overview

RFQ: 6000000001 RFQ Type: AN RFQ Date: 04/29/2010
 Vendor: 103000 Dallas Bike Basics QuotDdln: 05/01/2010

Quotation Items

Item	Material	Short Text	RFQ Quantity	O...	C Deliv. Date	Net Price	Per	O...	Mat. Grp	PInt	SLoc	D	F
10	CHL01000	Chain Lock	200	EA	07/29/2010	36.50	1	EA	UTIL	MI00	T600		



Select **R** (Rejection Ind.) to indicate rejection of this quotation. Click on . Acknowledge the warning message prompted by the system with Yes and save anyway.

R

Repeat the process for the second quotation to be rejected (35.00 USD).

Click on the exit icon  to return to the SAP Easy Access screen.



10) Create Purchase Order Referencing an RFQ

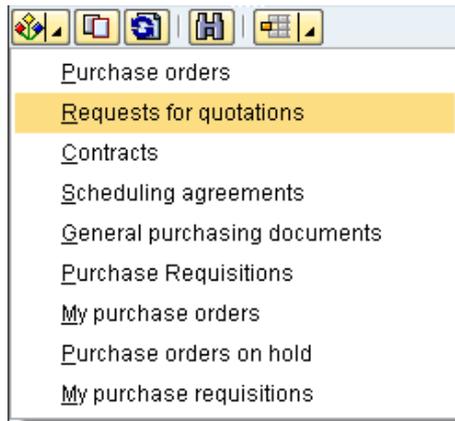
To create a purchase order, follow the menu path:

Logistics ► Materials Management ► Purchasing ► Purchase Order ► Create ► Vendor/Supplying Plant Known

Menu path

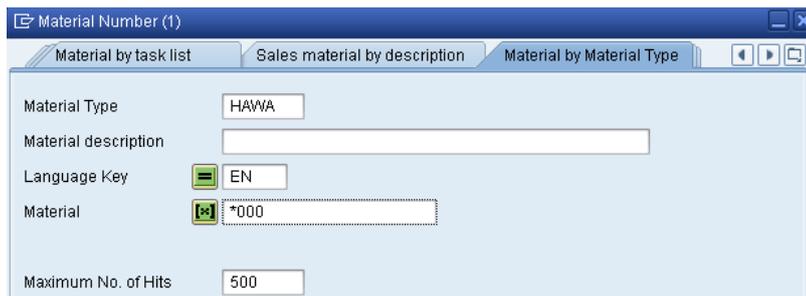
If there is no navigation screen on the left side, click on **Document Overview On**. As selection variant choose **Requests for quotations** as shown below.

Requests
for
quotations



In the following screen, in the Material Number field use the F4 help to find your chain lock trading good. On the Material by Material Type tab, select Material Type **Trading Goods** (HAWA) and enter *### (e.g. *012 if your number is 012) in the Material field. Then, press Enter or click on .

Trading
Goods



Double-click on your chain lock (**CHLO1###**) to select it. When your material number is populated in the Material Number field, make sure that all other search criteria fields are blank and click on . This will produce a screen with your three RFQs.

CHLO1##
#



Click on  (Change Breakdown). In the following screen, select **Vendor name** in

the right table (Column Set) and click on  to add it to the Sort criteria. Then, select vendor name in the left table (Sort criteria) and click on  to display the vendor name first, then the document number.

Vendor
name

After you have confirmed your changes by clicking on , you will see the names of your vendors in alphabetic order.

Click on the right part of the Select Layout icon  and choose Change layout... Select **Material** in the right table (Column Set) and click on  to add it to the displayed columns.

Material

After you have confirmed your changes by clicking on  and expanding all three folders, you will see the following screen.

VendName/Purch.Doc.	Material
▼ Dallas Bike Basics	
• 6000000001	CHLO1000
▼ Mid-West Supply	
• 6000000000	CHLO1000
▼ Spy Gear	
• 6000000002	CHLO1000

Single-click on the requisition/quotation that you want to reference (Mid-West Supply) and select  to adopt the information.

Mid-West
Supply

Note: If you try and adopt one of the other quotations you will get a message that the quotation item is already rejected.

Verify that the system copied the Material number **CHLO1###**, Quantity **200**, **three months from today** as Deliv. Date, and the Net Price of **32.00 USD**.

CHLO1##

200
3 months
from today
32.00 USD

Purch. Org.	US00	GBI US
Purch. Group	N00	North America
Company Code	US00	Global Bike Inc.

S...	Item	A	I	Material	Short Text	PO Quantity	O...	C	Deliv. Date	Net Price	Curr...	Per	O...	Matl Group
	10			CHLO1000	Chain Lock	200	EA	D	07/29/2010	32.00	USD	1	EA	Utilities

If the header data is not yet displayed, open the section by clicking on  Header. On the Conditions tab, record the total value of the purchase order (6,400 USD).

If the line item data is not yet displayed, open the section by clicking on  Item Detail. On the Delivery Schedule tab, select the first line. Then, click on  below the table to perform a schedule line split.

S...	C	Delivery Date	Sched. Qty	Time	Stat.	Del. Dte	GR Qty	Purchase ...	Req...	N...	Open Quantity	Sch...	P...
	D	07/29/2010	200			07/29/2010		10000000	10		200	1	
											0		
											0		
											0		

Acknowledge the red error message by changing the Sched Qty. of the first line from 200 to **100**. Then, enter the following data for the second line:

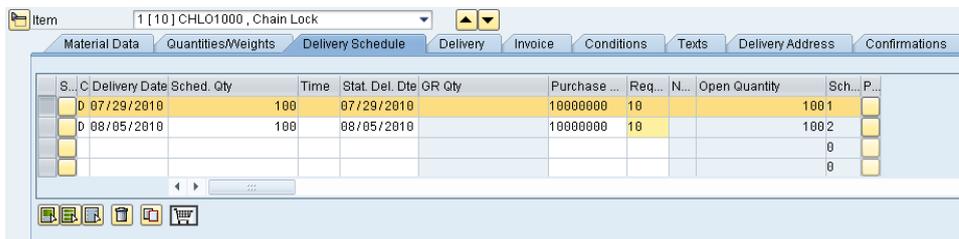
Delivery Date **one week after the first delivery** 200 → 100
 Sched Qty. **100**
 Purchase Req. **same as previous line**
 Requisition Item **same as previous line** 1 week

Then, click on . Verify your item details with the screenshot below.

after 1st
 delivery
 100

same

same



S...	C	Delivery Date	Sched. Qty	Time	Stat. Del. Dte	GR Qty	Purchase ...	Req...	N...	Open Quantity	Sch...	P...
	D	07/29/2010	100		07/29/2010		10000000	10		1001		
	D	08/05/2010	100		08/05/2010		10000000	10		1002		
										0		
										0		

On the Material Data tab, select **InfoUpdate**.

InfoUpdate

Then, find the following menu item in the system menu:

Purchase Order ► Save .

The system will assign a unique purchase order document number.

Standard PO created under the number 4500000001

Purchase
 order
 document
 number

Click on the exit icon  to return to the SAP Easy Access screen.



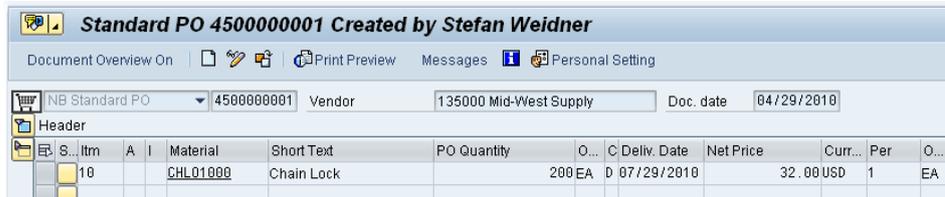
11) Display Purchase Order

To display a purchase order, follow the menu path:

Logistics ► Materials Management ► Purchasing ► Purchase Order ► Display

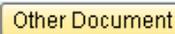
Menu path

This will produce the following screen.



The screenshot shows the SAP Standard PO 4500000001 interface. The title bar reads "Standard PO 4500000001 Created by Stefan Weidner". Below the title bar, there are several icons and buttons: "Document Overview On", "Print Preview", "Messages", and "Personal Setting". The main area contains a header section with the following fields: "INB Standard PO", "4500000001", "Vendor", "135000 Mid-West Supply", and "Doc. date 04/29/2010". Below the header, there is a table with the following columns: "S...", "Itm", "A", "I", "Material", "Short Text", "PO Quantity", "O...", "C Deliv. Date", "Net Price", "Curr...", "Per", and "O...". The table contains one row with the following data: "10", "CHLQ1000", "Chain Lock", "200 EA", "D 07/29/2010", "32.00 USD", "1", and "EA".

If the purchase order number from the previous step is not already displayed, click on  (Other Purchase Order).

In the following screen, enter (or find) your purchase order number in the Pur. order field, select Pur. order and click on .

Then, click on  to look at the electronic printout.

Click on the exit icon  twice to return to the SAP Easy Access screen.



12) Create Goods Receipt for Purchase Order

To create a goods receipt for a purchase order, follow the menu path:

Logistics ► Materials Management ► Inventory Management ► Goods Movement ► Goods Receipt ► For Purchase Order ► GR for Purchase Order (MIGO)

Menu path

Make sure that **Goods Receipt** and **Purchase Order** are selected in the dropdown lists. Enter (or find) **your PO number** in the field next to them. Then, press Enter which will populate your PO data into the fields.

Goods Receipt
Purchase Order
your PO number

Line	Mat. Short Text	OK	Qty in UnE	E...	SLoc	Batch	Valuation ...	M...	D Stock Type	Plant
1	Chain Lock	<input type="checkbox"/>	100	EA	Trading Goods			101 +	Unrestrict...	DC Miami
2	Chain Lock	<input type="checkbox"/>	100	EA	Trading Goods			101 +	Unrestrict...	DC Miami

You should see two lines with 100 ea each of Chain lock. Here we only work on the first line. In the case that you have only one line with 200 ea of the Chain lock please change the Quantity from 200 to **100**. If the line item in the item overview section is read only, click on at the bottom of the screen to close the item detail section. Then, check **OK**. SLoc (Storage location) **Trading Goods** should already be entered.

100

OK

Trading Goods

Finally, click on or to post your goods receipt. The system will create a unique goods receipt document.

Material document 5000000001 posted

Goods receipt
document number

Click on the exit icon to return to the SAP Easy Access screen.



13) Verify Physical Receipt of Goods

To verify the receipt of goods, follow the menu path:

Logistics ► Materials Management ► Inventory Management ► Environment ► Stock ► Stock Overview

Menu path

Enter Material **CHLO1###** (replace ### with your number), Plant **MI00**, and Display version **1**. Then, click on .

CHLO1##

MI00

1

Client/Company Code/Plant/Storage Location/Batch/Special Stock	Unrestricted use	Qual. inspection	Reserved	Rcpt reservation
Full	100.000			
US00 Global Bike Inc.	100.000			
MI00 DC Miami	100.000			
TG00 Trading Goods	100.000			

In the Unrestricted use column, the current inventory is displayed. Select the line with your plant's stock and click on .

Stock	Plnt
Plnt	MI00

Stock Type	Stock
Unrestricted use	100.000
Qual. inspection	0.000
Returns	0.000
On-Order Stock	100.000
Consgt ordered	0.000

Note that there are 100 pieces on stock for unrestricted use and another 100 in on-order stock (still to be delivered to the Miami plant). Click on .

Click on the exit icon  to return to the SAP Easy Access screen.



14) Create Invoice Receipt from Vendor

To create an invoice receipt, follow the menu path:

Logistics ► Materials Management ► Logistics Invoice Verification ► Document Entry ► Enter Invoice

Menu path

Enter **today's date** as Invoice date using F4 and Enter. Check your Company Code **US00**. Enter the amount from the invoice above (**3,200.00**) in the Amount field and select **XI** as Tax Code (field next to Tax Amount). Then, type in **INVOICE 00504-###** as Text and click on

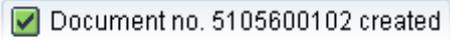
today's date
US00
3,200.00
XI
INVOICE
00504-###

Enter (or find) **your PO number** in the middle of the screen (next to the drop-down field with Purchase Order/Scheduling Agreement) and press Enter.

your PO number

Check the **Booking OK** check box in your line item. Use the button to see if the postings are correct.

Booking OK

Finally, click on  Post to post your invoice receipt. The system will generate a unique number for this document.  Invoice document number

Click on the exit icon  to return to the SAP Easy Access screen.



15) Display Purchase Order History

To display the purchase order history, follow the menu path:

**Logistics ► Materials Management ► Purchasing ►
Purchase Order ► Display**

Menu path

Your PO is displayed automatically. If not, click on  (Other Purchase Order) and find your PO number. If the line item data is not yet displayed, open the section by clicking on  Item Detail.

On the Purchase Order History tab, review the activity that has taken place in reference to this purchase order. Click on your **WE** (Goods Receipt) **material document number**. This will bring you directly to the material document created when you did your goods receipt.

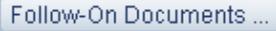
WE

On the Doc. info tab, select  FI Documents. You are now

looking at the General Ledger posting that took place in the background when you saved your goods receipt. Click on  twice to go back to your PO.

On the Purchase Order History tab, click on your **RE-L** (Invoice Receipt) document number. This will bring you directly to the invoice document you just created when you did your invoice receipt.

RE-L

Select  Follow-On Documents You are now looking at the General Ledger posting that happened in the background when you saved your invoice receipt. Click on  to go back to the invoice document.

On the right side of the screen, click on  (Line item list) to see here that the invoice is still open, meaning that you have not paid the vendor.

Click on the exit icon  three times to return to the SAP Easy Access screen.



16) Create Goods Receipt for Purchase Order

To create a goods receipt for a purchase order, follow the menu path:

Logistics ► Materials Management ► Inventory Management ► Goods Movement ► Goods Receipt ► For Purchase Order ► GR for Purchase Order (MIGO)

Menu path

Make sure that **Goods Receipt** and **Purchase Order** are selected in the dropdown lists. Enter **your PO number** in the field next to them. Then, press Enter. The data of your purchase order should now be populated into the fields.

Goods Receipt
Purchase Order
Your PO number

The system should default in the remaining **100** pieces. If the line item in the item overview section is read only, click on  at the bottom of the screen to close the item detail section. Then, check **OK**. SLoc (Storage location) **Trading Goods** should already be entered.

100

OK

Trading Goods

Finally, click on  or  to post your goods receipt. The system will create a unique goods receipt document.

 Material document 5000000002 posted

Goods receipt document
number

Click on the exit icon  to return to the SAP Easy Access screen.



17) Create Invoice Receipt from Vendor

To create an invoice receipt, follow the menu path:

Logistics ► Materials Management ► Logistics Invoice Verification ► Document Entry ► Enter Invoice

Menu path

Analogous to the first invoice receipt, enter **today's date** as Invoice date using F4 and Enter. Check your Company Code **US00**. Enter the amount from the invoice above (**3,200.00**) in the Amount field and select **XI** as Tax Code. Then, type in **INVOICE 00515-###** as Text and click on .

today's date

US00

3,200.00

XI

INVOICE 00515-###

Enter **your PO number** in the middle of the screen (next to the drop-down field with Purchase Order/Scheduling Agreement) and press Enter.

your PO number

Check the **Booking OK** check box in your line item. Use the

Booking OK



button to see if the postings are correct. Click on



to post your invoice receipt. The system will generate a unique number for this document.

Click on the exit icon  to return to the SAP Easy Access screen.



18) Post Payments to Vendor

To post payments to a vendor, follow the menu path:

Accounting ► Financial Accounting ► Accounts Payable ► Document Entry ► Outgoing Payment ► Post

Menu path

In the Post Outgoing Payments: Header Data screen, enter (or select) **today's date** as Document Date.

Today's date

In the Bank data field group, enter Account **100000** (Bank Account), the amount you are going to pay (**6400**), and the Text **"INVOICES 00504-### & 00515-###"**.

100000

6,400.00

INVOICES

...

In the Open items selection field group, enter (or find) the vendor number for your **Mid-West Supply** vendor in the Account field (again, use City **Lincoln** and Search term **###** in the F4 help). Verify your data with the screenshot below.

Mid-West

Supply

Lincoln

###

Select **Process open items**. This will produce the following screen.

Post Outgoing Payments Process open items

Distribute diff.
 Charge off diff.
 Editing options
 Cash Disc. Due

Standard
 Partial Pmt
 Res.items
 Withhldg tax

Account items 135000 Mid-West Supply

Document ...	D...	Document ...	P...	Bus...	Day...	USD Gross	Cash discont	Cash...
5100000001	RE	04/30/2010	31		0	3,200.00-		
5100000002	RE	04/30/2010	31		0	3,200.00-		

Invoices selected will be displayed in blue. At the bottom of the screen, you should see that the total amount has been fully assigned.

Editing status

Number of items	<input type="text" value="2"/>	Amount entered	<input type="text" value="6,400.00-"/>
Display from item	<input type="text" value="1"/>	Assigned	<input type="text" value="6,400.00-"/>
Reason code	<input type="text"/>	Difference postings	<input type="text"/>
Display in clearing currency	<input type="text"/>	Not assigned	<input type="text" value="0.00"/>

Click on to post payments to the Mid-West Supply. The system will create a unique vendor payment document number.

Document 1500000001 was posted in company code US00

Click on the exit icon and select YES to return to the SAP Easy Access screen.

Vendor
payment
document
number

Yes

19) Display Vendor Line Items

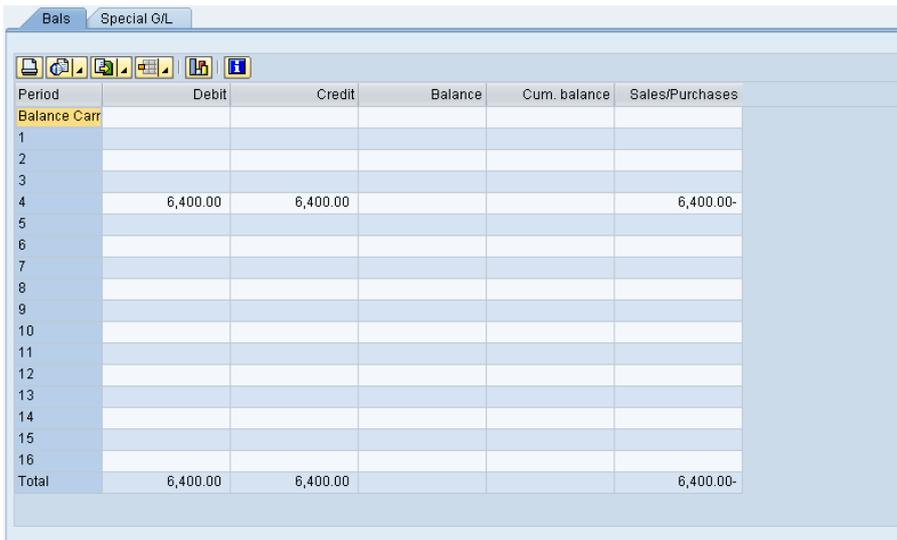
To display the vendor line items, follow the menu path:

Accounting ► Financial Accounting ► Accounts Payable ► Account ► Display Balances

Menu path

Find or enter the number of your **Mid-West Supply** vendor (for your number ###) in the Vendor field, Company code **US00**, and the **current year** as Fiscal year. Then, click on . This will produce the following screen.

Mid-West
Supply
US00
current year



The screenshot shows the SAP Vendor Line Items display screen. The window title is 'Bals Special G/L'. The table has the following columns: Period, Debit, Credit, Balance, Cum. balance, and Sales/Purchases. The data is as follows:

Period	Debit	Credit	Balance	Cum. balance	Sales/Purchases
Balance Carr					
1					
2					
3					
4	6,400.00	6,400.00			6,400.00-
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
Total	6,400.00	6,400.00			6,400.00-

Review for open items. Double-click on the current period to review the line items that make up the balance. Here, you can see which line items are open and which ones have been cleared. In your case, you should see a  symbol.

Click on  three times to return to the SAP Easy Access screen.



20) Display Purchase Order History

To display the purchase order history, follow the menu path:

**Logistics ▶ Materials Management ▶ Purchasing ▶
Purchase Order ▶ Display**

Menu path

Your PO is displayed automatically. If not, click on  (Other Purchase Order) and find your PO number. If the line item data is not yet displayed, open the section by clicking on  Item Detail.

On the Purchase Order History tab, review the activity that has taken place in reference to this purchase order. Click on the new **WE** (Goods Receipt) material document number – you should now have two documents. This will bring you directly to the material document created when you did your goods receipt.

WE

On the Doc. info tab, select  FI Documents. You are now

looking at the General Ledger posting that took place in the background when you saved your goods receipt. Click on  twice to go back to your PO.

On the Purchase Order History tab, click on the new **RE-L** (Invoice Receipt) document number – you should now have two documents. This will bring you directly to the invoice document you just created when you did your invoice receipt.

RE-L

Select  Follow-On Documents You are now looking at the General Ledger posting that happened in the background when you saved your invoice receipt. Click on  twice to go back to your PO.

On the Delivery Schedule tab, review the line items that have had deliveries against them. Are there any line items left outstanding?

Click on the exit icon  to return to the SAP Easy Access screen.



21) Display/Review G/L Account Balances and Individual Line Items

To display G/L account balances, follow the menu path:

**Accounting ► Financial Accounting ► General Ledger ► Account
► Display Balances (New)**

Menu
path

Enter G/L account **100000** (Bank Account), Company code **US00**, and the **current year** as Fiscal year. Then, click on . A similar screen to the one below will appear (amounts might be different for you).

100000
US00
current
year

Period	Debit	Credit	Balance	Cum. balance
Bal. Carryforw				
1				
2				
3				
4	65,092.50	11,650.00	53,442.50	53,442.50
5				53,442.50
6				53,442.50
7				53,442.50
8				53,442.50
9				53,442.50
10				53,442.50
11				53,442.50
12				53,442.50
13				53,442.50
Total	65,092.50	11,650.00	53,442.50	53,442.50

Double-click on the row for the current month (the first column indicates the SAP periods which are 12 month plus 1 special period).

On the G/L Account Line Item Display G/L View screen, you can see all debits and credits toward GBI's bank account in the US in the current month.

St	Assignment	DocumentNo	BusA	Typ	Doc. Date	PK	Amount in local cur.	LCurr	Amount in loc. curr. 2	LCurr2
<input type="checkbox"/>	✓ 20100423	1400000001		DZ	04/23/2010	40	15,000.00	USD		
<input type="checkbox"/>	✓ 20100424	1400000002		DZ	04/24/2010	40	15,000.00	USD		
<input type="checkbox"/>	✓ 20100424	1400000003		DZ	04/24/2010	40	20,092.50	USD		
<input type="checkbox"/>	✓ 20100427	1500000000		KZ	04/27/2010	50	5,250.00-	USD		
<input type="checkbox"/>	✓ 20100429	1400000004		DZ	04/29/2010	40	15,000.00	USD		
<input type="checkbox"/>	✓ 20100430	1500000001		KZ	04/30/2010	50	6,400.00-	USD		
* ✓							53,442.50	USD		
** Account 100000							53,442.50	USD		

Note: Because all participants in your class (virtual GBI employees) are posting to the same US bank account, you need to find your postings in the overall list. In order to do so, take a look at the Text column and search for your ###, e.g. "INVOICES 00504-000 and 00515-000" if your number is 000.

INVOICES 00504-000 and 00515-000

###

Once you find your line item, you should also recognize the Document Number. Double-click on your line item to display details. When you scroll down, you should find your user name indicating that you have created the vendor payment document.

Field Description	Field Value
Company Code	US00
Line Item	000001
Transaction	RFBU
Currency	USD
Ref. Transactn	BKPF
Record Type	0
Version	1
Account Number	100000
CO Area	NA00
Amount in TC	6,400.00-
LC Amount	6,400.00-
OrigTrnsCrcyAmt	6,400.00-
Debit/Credit	H
Posting period	004
Dr.trans.currny	USD
Fiscal Year	2010
Posting Date	04/30/2010
Document Number	1500000001
Line item	001
Posting key	50
User Name	WEIDNER

Click on  and then choose  twice to go back to the G/L Account Balance Display screen.

Repeat the above procedure for the G/L account **300000** (Payables-Trade Accounts). In the list of documents, you should find your two invoices (INVOICE 00504-### and 300000 INVOICE 00515-###).

Click on the exit icon  to return to the SAP Easy Access screen.

5. 实验方式

每位同学独立上机操作实验，实验指导教师现场指导。

实验 3： 生产计划管理

1. 实验目的

了解并执行一个制造过程周期

2. 实验环境

- 1) 接入 Internet 的实验主机；
- 2) Windows 7 操作系；
- 3) SAP GUI。

3. 实验内容

为了处理完整的制造过程，学生需要在 GBI 公司内担任不同的角色，例如，生产主管，车间工人和工厂经理。总体而言，学生对物料管理（MM）和生产计划与执行（PP）部门的具体工作进行操作。

4. 实验步骤

1) Change Material Master Record

To change a material's view, follow the menu path:

Logistics ▶ Production ▶ Master Data ▶ Material Master ▶ Material ▶ Change ▶ Immediately

Menu
path

In the Material field, find and select your red Deluxe Touring bike first.

If you do not remember its material number, position your cursor in the Material field and click on the search icon  or press **F4**. Make sure you are on the Material by Material Type tab. Select Material Type **Finished Product (FERT)** and enter ***###** in the Material field. Remember to replace **###** by your three-digit number given by your instructor, e.g. *005 if your number is 005. Then, press Enter and select the red Deluxe Touring bike with a double click.

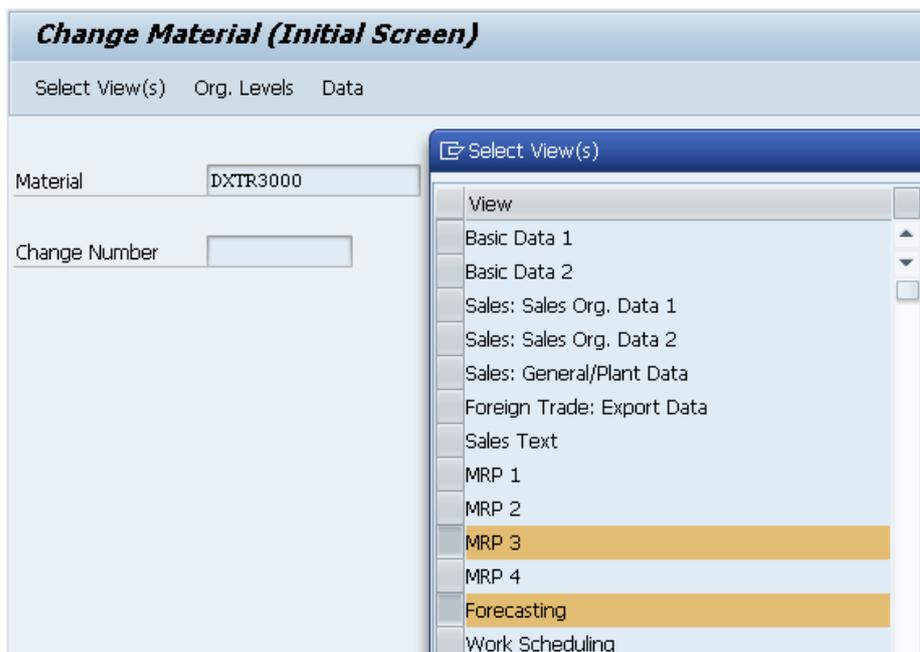
F4
Finished
Product
*###

When your material number (**DXTR3###**) is entered in the Material field, click on  or press Enter.

DXTR3##
#

On the following screen, select **MRP 3** and **Forecast**.

MRP 3,
Forecast



Then, press Enter or click on . The following screen will appear.

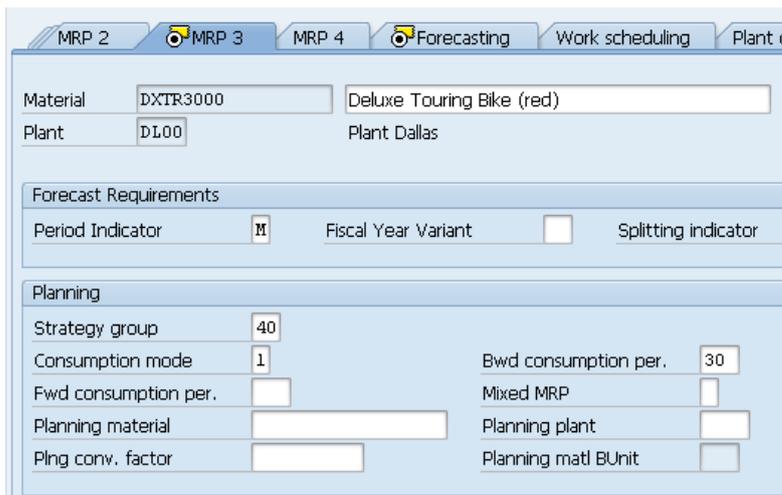


Find and select the GBI manufacturing facility in Dallas (**DL00**).
Then, enter its Finished Goods Stor. Location (**FG00**). Press Enter
or click on

DL00
FG00

In the MRP 3 view, enter Strategy group **40** (Planning with final
assembly), Consumption mode **1** (Backward consumption only)
and Bwd.consumption per. **30**.

40
1
30



Click on to continue to the forecasting tab. Then, press Enter
to acknowledge the warning message to check the consumption
periods.

On the Forecasting tab, select Initialization pds **12**, uncheck **Reset
automatically**, check **Param.optimization**, select Optimization
level **F** (Fine), Alpha factor **0.20**, Beta factor **0.10**, Gamma factor
0.30, and Delta factor **0.30**.

12
Reset-automatically
Param.optimization

Compare your entries with the screen capture shown below.

F
0.20 0.10
0.30 0.30

MRP 4 Forecasting Work scheduling Plant data / stor. 1 Plant da

Material Deluxe Touring Bike (red)
 Plant Plant Dallas

General data

Base Unit of Measure Forecast model Period Indicator
 Last forecast Fiscal Year Variant
 RefMatl: consumption RefPlant:consumptio
 Date to Multiplier

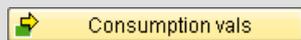
Number of periods required

Hist. periods Forecast periods Periods per season
 Initialization pds Fixed periods

Control data

Initialization Tracking limit Reset automati
 Model selection Selection procedure Param.optimizat
 Optimization level Weighting group Correction fact
 Alpha factor Beta factor
 Gamma factor Delta factor

Historic consumption values already have been entered into the GBI system. You can view them on the Forecasting tab, select



. If you do not see the Total

consumption column, press on .

Within the table you will see the Total Consumption for the periods 04.2010 to 03.2014. These values form the base for later forecasts within this case study.

Please note that within a productive system these values would have been updated based on the goods moved out of storage.

Click on [← Main Data](#) to return to the overview.

Click on to save your entries for the red bike.

Repeat the same procedure for the silver and the black deluxe touring bike material master. Start with the silver bike (**DXTR2###**), then modify the black bike (**DXTR1###**).

DXTR2###

DXTR1###

Click on the exit icon to return to the SAP Easy Access screen.



2) Change Routing

After the operational steps are laid out, the components must be allocated to the individual operations. This is a progressive process where each operation builds off the materials that entered production in the previous operations.

Component allocation

To change a routing, follow the menu path:

Logistics ▶ Production ▶ Master Data ▶ Routings ▶ Routings ▶ Standard Routings ▶ Change

Menu path

Enter the material number for your red Deluxe Touring bike (**DXTR3###**). In the Plant field, enter GBI's Dallas plant number (**DL00**). Please ensure that the Group field is empty. Then, press Enter or click on .

DXTR3###
DL00

Change Routing: Operation Overview																		
Material DXTR3000 Deluxe Touring Bike (red) Grp.Count1																		
Sequence 0																		
Operation Overview																		
Op...	SOP	Work c...	Plant	Co...	Standar...	Description	L...	P...	Cl...	O...	P...	C...	S...	Base Quantity	U...	Setup	U...	Ac
0010		ASSY1000	DL00	ASSY		Material staging	<input type="checkbox"/>	15	EA		MIN	LA						
0020		ASSY1000	DL00	ASSY		Attach seat to frame	<input type="checkbox"/>	1	EA		MIN	LA						
0030		ASSY1000	DL00	ASSY		Attach handle bar assembly	<input type="checkbox"/>	1	EA		MIN	LA						
0040		ASSY1000	DL00	ASSY		Attach derailleur gear asm. to wheel	<input type="checkbox"/>	1	EA		MIN	LA						
0050		ASSY1000	DL00	ASSY		Attach front and rear wheels to chain	<input type="checkbox"/>	1	EA		MIN	LA						
0060		ASSY1000	DL00	ASSY		Attach brakes	<input type="checkbox"/>	1	EA		MIN	LA						
0070		ASSY1000	DL00	ASSY		Attach peddles	<input type="checkbox"/>	1	EA		MIN	LA						
0080		INSP1000	DL00	ASSY		Test bike	<input type="checkbox"/>	1	EA	2	MIN	LA						
0090		PACK1000	DL00	ASSY		Disassemble	<input type="checkbox"/>	1	EA		MIN	LA						
0100		PACK1000	DL00	ASSY		Pack bike	<input type="checkbox"/>	1	EA		MIN	LA						
0110		PACK1000	DL00	ASSY		Move to storage	<input type="checkbox"/>	15	EA		MIN	LA						

Choose  **CompAlloc** and select the following two materials.

Item Overview												
P...	L...	Path	Ite...	Component	Quantity	Sort String	U...	I...	B...	Ope...	Seq.	C
<input type="checkbox"/>	0	0	0010	TRWA1000	2		EA	L				
<input type="checkbox"/>	0	0	0020	TRFR3000	1		EA	L				
<input type="checkbox"/>	0	0	0030	DGAM1000	1		EA	L				
<input type="checkbox"/>	0	0	0040	TRSK1000	1		EA	L				
<input type="checkbox"/>	0	0	0050	TRHB1000	1		EA	L				
<input type="checkbox"/>	0	0	0060	PEDL1000	1		EA	L				

Once you have selected the red touring frame (**TRFR3###**) and the touring seat kit (**TRSK1###**), choose **New Assignment**.

TRFR3###
TRSK1###

In the following screen, in the Oper./Act. field enter operation **0020** and press Enter. Back on the Material Component Overview screen, you see that now both components have been assigned to operation 0020.

0020

Item Overview												
P...	L...	Path	Ite...	Component	Quantity	Sort String	U...	I...	B...	Ope...	Seq.	C
<input type="checkbox"/>	0	0	0010	TRWA1000	2		EA	L				
<input type="checkbox"/>	0	0	0020	TRFR3000	1		EA	L	<input type="checkbox"/>	0020	0	
<input type="checkbox"/>	0	0	0030	DGAM1000	1		EA	L				
<input type="checkbox"/>	0	0	0040	TRSK1000	1		EA	L	<input type="checkbox"/>	0020	0	
<input type="checkbox"/>	0	0	0050	TRHB1000	1		EA	L				

Repeat the same process for the other components and assign them to operations as shown below.

Component	Operation
TRHB1### (touring handle bar)	0030

TRWA1### (touring aluminum wheel assembly)	0040
DGAM1### (derailleur gear assembly)	0040
CHAN1### (chain)	0050
BRKT1### (brake kit)	0060
PEDL1### (pedal assembly)	0070
WDOC1### (warranty document)	0100
PCKG1### (packaging)	0100

TRHB1###

TRWA1###

DGAM1###

CHAN1###

BRKT1###

PEDL1###

WDOC1###

PCKG1###

Item Overview													
P..	L...	Path	Ite...	Component	Quantity	Sort String	U...	I...	B...	Ope...	Seq.	C	Material Description
<input type="checkbox"/>	0	0	0010	TRWA1000	2		EA	L	<input type="checkbox"/>	0040	0		Touring Aluminum Wheel Assembly
<input type="checkbox"/>	0	0	0020	TRFR3000	1		EA	L	<input type="checkbox"/>	0020	0		Touring Frame-Red
<input type="checkbox"/>	0	0	0030	DGAM1000	1		EA	L	<input type="checkbox"/>	0040	0		Derailleur Gear Assembly
<input type="checkbox"/>	0	0	0040	TRSK1000	1		EA	L	<input type="checkbox"/>	0020	0		Touring Seat Kit
<input type="checkbox"/>	0	0	0050	TRHB1000	1		EA	L	<input type="checkbox"/>	0030	0		Touring Handle Bar
<input type="checkbox"/>	0	0	0060	PEDL1000	1		EA	L	<input type="checkbox"/>	0070	0		Pedal Assembly
<input type="checkbox"/>	0	0	0070	CHAN1000	1		EA	L	<input type="checkbox"/>	0050	0		Chain
<input type="checkbox"/>	0	0	0080	BRKT1000	1		EA	L	<input type="checkbox"/>	0060	0		Brake Kit
<input type="checkbox"/>	0	0	0090	WDOC1000	1		EA	L	<input type="checkbox"/>	0100	0		Warranty Document
<input type="checkbox"/>	0	0	0100	PCKG1000	1		EA	L	<input type="checkbox"/>	0100	0		Packaging

Click on  and save your entries with .

Click on the exit icon  to go back to the SAP Easy Access Menu.



3) Display Product Group

A product group (product family) supports high-level planning. This way, it is not necessary to delve into the minutia of creating planning forecasts for every material in the company.

Product group

To display the deluxe touring bike product group, follow the menu path:

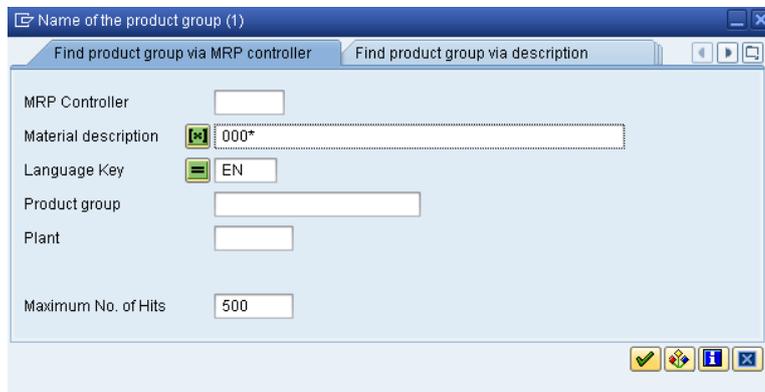
Logistics ► Production ► SOP ► Product Group ► Display

Menu path

In the Display Product Group: Initial Screen, in the Product group field find and select your group for deluxe touring bikes. In order to do so, press the search icon  (or pressed F4), enter **###*** in the Material description field.

Remember to replace **###** with your three-digit number, e.g. enter 009* if your number is 009.

###*



Then, press Enter or click on  to display the search results. You should see five product groups already defined for your set of material master data (compare with the screen shown below).



Material description	Language	Product gro...	Plant
000 PRODUCT GROUP BICYCLES	EN	PG-BIKE000	DL00
000 PRODUCT GROUP DELUXE TOURING BICYCLE	EN	PG-DXTR000	DL00
000 PRODUCT GROUP OFFROAD BICYCLES	EN	PG-ORBK000	DL00
000 PRODUCT GROUP PROFESSIONAL TOURING	EN	PG-PRTR000	DL00
000 PRODUCT GROUP TOURING	EN	PG-TRBK000	DL00

Double-click on the line for deluxe touring bicycles to select the group.

Display Product Group: Initial Screen

Product group 

Plant

Now that the correct product group (**PG-DXTR###**) is filled in, make sure that Plant **DL00** is entered. Then, press Enter to display the product group details.

PG-DXTR###
DL00

Display Product Group: Members (Materials)

Hierarchy graphic Versions... Master data... Product grp. graphic

Product group

Plant

Base Unit

Member number	PInt	Unit conv. Short Text	Aggr.fact.	Proportion	UoM	V M Fx	MTyp
<input type="text" value="DXTR1000"/>	<input type="text" value="DL00"/>	<input type="text" value="1"/>	<input type="text" value="1"/>	<input type="text" value="40"/>	<input type="text" value="EA"/>	<input type="checkbox"/>	
		<input type="text" value="Deluxe Touring Bike (black)"/>			<input type="text" value="FERT"/>		
<input type="text" value="DXTR2000"/>	<input type="text" value="DL00"/>	<input type="text" value="1"/>	<input type="text" value="1"/>	<input type="text" value="30"/>	<input type="text" value="EA"/>	<input type="checkbox"/>	
		<input type="text" value="Deluxe Touring Bike (silver)"/>			<input type="text" value="FERT"/>		
<input type="text" value="DXTR3000"/>	<input type="text" value="DL00"/>	<input type="text" value="1"/>	<input type="text" value="1"/>	<input type="text" value="30"/>	<input type="text" value="EA"/>	<input type="checkbox"/>	
		<input type="text" value="Deluxe Touring Bike (red)"/>			<input type="text" value="FERT"/>		

On this screen you can see that this product group defines proportions for three different bikes: the black, silver and red deluxe touring bike. For the black bike a share of 40% will be considered and 30% for the silver and the red bikes each.

Click on the exit icon  to return to the SAP Easy Access screen.

4) Create Sales and Operations Plan

A sales and operations plan (SOP) is a planning tool used to consolidate data for forecasting future sales and production levels as well as the methods needed to meet those requirements. In this task, our SOP will be based on historical consumption values taken from a fixed period. This is in contrast to forecasting within a real life system which would base the prediction on previous periods and their respective consumption.

Sales and operations plan

To create an SOP, follow the menu path:

Logistics ▶ Production ▶ SOP ▶ Planning ▶ For Product Group ▶ Change

Menu path

Make sure that Product group **PG-DXTR###** and Plant **DL00** are entered. Then, select **Active version**. Record the version number:

PG-DXTR###

DL00

 A00

In the system menu, select:

Edit ▶ Create sales plan ▶ Forecast...

Select **Period intervals**, Forecast from **current period/current year** to **previous period/next year**, Historic Data from **04/2010** to **03/2014**, Forecast execution **Aut. model selection**. Compare your screen with the one below before clicking on **Forecasting**.

Period intervals

current period/current year

previous period/next year

04/20140

03/2014

Aut. model selection

If needed, click on  and continue through warning messages.

The system selected Trend and season. Click on **Forecasting**.

Forecast: Results

Basic value	319.920	Trend value	5
MAD	17	Error total	57

Forecast results

Period	Orig. HV	Corr. HV	Ex-post FV	Orig. FV	Corr. FV	Season
M 04/2014				316	316	0.97
M 05/2014				343	343	1.04
M 06/2014				291	291	0.87
M 07/2014				307	307	0.90
M 08/2014				344	344	0.99
M 09/2014				383	383	1.09
M 10/2014				347	347	0.97

No forecast error messages exist

Forecasting

You can see that the system tested and found Seasonal and Trend tendencies in the past consumption data and has applied a Seasonal Trend Model.

Click on  (Copy and Save). The sales forecast is copied into your Sales and Operations Plan.

As Target day's supply enter 5 for each forecasted period (a total of 12 months).

5

Change Rough-Cut Plan

Characteristic

Product group: PG-DXTR000 000 Product Group Deluxe Touring Bicycle
 Plant: D100
 Version: A00 Active version Active

SOP: plan individual product group

Planning Table	Un	M 07/2014	M 08/2014	M 09/2014	M 10/2014	M 11/2014	M 12/2014	M 01/2015
Sales	EA	306	344	382	346	336	391	431
Production	EA							
Stock level	EA	-596	-940	-1322	-1668	-2004	-2395	-2826
Target stock level	EA							
Days' supply	***							
Target days' supply	***	5	5	5	5	5	5	5

In a production plan, you plan the quantities you need to produce in order to meet your sales plan. The system then calculates stock levels and days' supply for each period on the basis of the sales and production quantities and any target data. There are several different planning strategies available, which differ in the production values and the stock level changes.

As the SOP is a high level planning, discrete production values are not necessary. The SAP system calculates discrete numbers once the SOP is transferred to the Demand Management.

In the system menu, select:

Edit ► Create productn plan ► Synchronous to sales

Note the change in the Production and in the Stock level lines. The production plan is created to match the sales forecast.

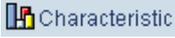
In the system menu, select

Edit ► Create productn plan ► Target day's supply

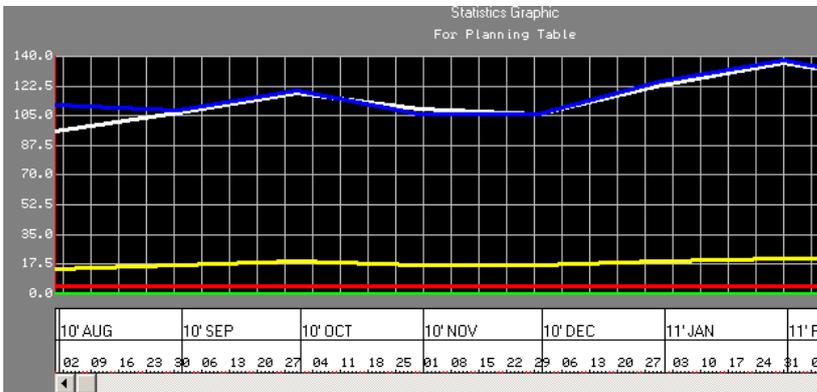
Note the impact on the production plan and stock levels. Production levels are generated to match the sales plus produce enough to put into stock to meet the target days of supply specifications.

Review the Planning Table (your numbers may be different then this table).

Change Rough-Cut Plan								
Characteristic								
Product group	PG-DXTR000	000 Product Group Deluxe Touring Bicycle						
Plant	D100							
Version	A00 Active version	Active						
SOP: plan individual product group								
Planning Table	Un	M 07/2014	M 08/2014	M 09/2014	M 10/2014	M 11/2014	M 12/2014	M 01/2015
Sales	EA	306	344	382	346	336	391	404
Production	EA	307	350	390	338	336	398	404
Stock level	EA	49	55	63	55	56	63	63
Target stock level	EA							
Days' supply	***	5	5	5	5	5	5	5
Target days' supply	***	5	5	5	5	5	5	5

Click on  to review a graphic representation of your planning table.

Note Although the screen displays integer production values, the SAP system calculates with decimal accuracy. You can display the decimal places by highlighting a row and pressing F8 and enter the amount of decimal places required. Then (re)create the production plan.



You may click on  to display a legend for this graphic.

	Sales
	Production
	Stock level
	Target stock level
	Days' supply
	Target days' supply

Click on  to go back and save with .

Click on the exit icon  to return to the SAP Easy Access screen.



5) Transfer SOP to Demand Management

Demand Management is the tool used to disaggregate planning data from high-level plans down to the detailed planning level. For this task, planning for the Deluxe Touring Product Group will be broken down into the individual components that belong to this group.

Demand Management

To transfer the SOP to Demand Management, follow the menu path:

Logistics ► Production ► SOP ► Disaggregation ► Transfer PG to Demand Management

Menu path

Enter Product group **PG-DXTR###**, Plant **DL00**, and the version saved in the previous task (**A00**).

PG-DXTR###

DL00

A00

Transfer Planning Data to Demand Management

Transfer now

Product group	PG-DXTR000		
Plant	DL00		
Version	A00		

Transfer strategy and period

Sales plan for material or PG members
 Sales plan for mat. or PG members as proportion of PG
 Production plan for material or PG members
 Prod.plan for mat. or PG members as proportion of PG

From To

Invisible transfer

Independent requirement specifications

Requirements type

Version

Active

Select **Prod.plan for mat. or PG members as proportion of PG** and **Active**. Then, deselect the **Invisible Transfer** indicator to present the disaggregation results on another screen allowing the planner to modify the results before saving them manually to Demand Management.

Prod.plan for mat. or PG members as prop. of PG

Active

~~Invisible Transfer~~

Select **Transfer now** and examine the Planned Independent Requirements generated for **DXTR1###**.

DXTR1###

Table		Items		Sched. Lines							
Material	Plant	V	A	BU	M 06/2014	M 07/2014	M 08/2014	M 09/2014	M 10/2014	M 11/2014	M 12
DXTR1000	DL00	AG	<input checked="" type="checkbox"/>	EA	135	123	140	156	135	134	

Then, click on to save.

Examine the Planned Independent Requirements generated for

DXTR2### and save them with .

DXTR2###

Table												
Items												
Sched. Lines												
Material	Plnt	V	A	BU	M 06/2014	M 07/2014	M 08/2014	M 09/2014	M 10/2014	M 11/2014	M 12/2014	M 13/2014
DXTR2000	DL00	AG	<input checked="" type="checkbox"/>	EA	101	92	105	117	101	101		

Finally, examine the requirements for DXTR3### and save them with



DXTR3###

Table												
Items												
Sched. Lines												
Material	Plnt	V	A	BU	M 06/2014	M 07/2014	M 08/2014	M 09/2014	M 10/2014	M 11/2014	M 12/2014	M 13/2014
DXTR3000	DL00	AG	<input checked="" type="checkbox"/>	EA	101	92	105	117	101			

Note DXTR1### makes up 40%, DXTR2### makes up 30% and DXTR3### another 30% of the production plan created in your Sales and Operations Plan. How is this derived?

Click on the exit icon  to return to the SAP Easy Access screen.



6) Review Demand Management

To review planned requirements, follow the menu path:

Logistics ► Production ► Production Planning ► Demand Management ► Planned Independent Requirements ► Display

Menu
path

Select the **Product group** indicator, enter Product group **PG-DXTR###**, Plant **DL00**, and select (Enter).

Product
group
PG-
DXTR###
DL00

On the Table tab, review the Planned Independent Requirements for the Deluxe Touring bike product group by material.

Material	Plnt	V	A	BU	M 06/2014	M 07/2014	M 08/2014	M 09/2014	M 10/2014	M 11/2014	M 12/2014	M 01/2015
DXTR1000	DL00	AG	<input checked="" type="checkbox"/>	EA	135	123	140	156	135	134	159	175
DXTR2000	DL00	AG	<input checked="" type="checkbox"/>	EA	101	92	105	117	101	101	119	131
DXTR3000	DL00	AG	<input checked="" type="checkbox"/>	EA	101	92	105	117	101	101	119	131

On the Sched. lines tab, review the requirement dates, planned quantities, values, and total planned quantities.

Plnd Ind. Reqmts Display: Schedule Lines

Product group **PG-DXTR000** 000 Product Group Deluxe Touring Bicycle
 Planning start 06/01/2014 Planning End 07/28/2015

Table Items **Sched. Lines**

Material **DXTR1000** Deluxe Touring Bike (black)
 Plant **DL00** Reqmts type **V8F** Version/active **AG** / Reqmts Plan
 Plan Qty **1,780** **EA** MRP Area

P..	ReqmtDate	Planned qty	Spl.	S	Value / USD	PVer	BOMExpNo	StandardVal.
M	06/2014		135		189,000.00			
M	07/2014		123		172,200.00			
M	08/2014		140		196,000.00			
M	09/2014		156		218,400.00			
M	10/2014		135		189,000.00			
M	11/2014		134		187,600.00			
M	12/2014		159		222,600.00			
M	01/2015		175		245,000.00			
M	02/2015		158		221,200.00			
M	03/2015		149		208,600.00			
M	04/2015		151		211,400.00			
M	05/2015		165		231,000.00			

Select  (Next item) to move to the next material.

Click on the exit icon  to return to the SAP Easy Access screen.



7) Run MPS with MRP

To run Master Production Scheduling, follow the menu path:

**Logistics ▶ Production ▶ Production Planning ▶
MPS ▶ MPS ▶ Single-Item, Multi-Level**

Menu path

Enter your material **DXTR3###**, Plant **DL00**, Processing key **NETCH**, select **2** (Purchase requisition in opening period), **3** (Schedule lines), **1** (MRP list), **1** (Adapt planning data (normal mode)), and **1** (Determination of Basic Dates for Planned). Then, select **Display material list**.

DXTR3###, DL00

NETCH

2

3

1

1

1

Display material list

Single-Item, Multi-Level		
Material	<input type="text" value="DXTR3000"/>	
Plant	<input type="text" value="DL00"/>	
Scope of Planning		
<input type="checkbox"/> Product group		
MRP Control Parameters		
Processing Key	<input type="text" value="NETCH"/>	Net Change in Total Horizon
Create Purchase Req.	<input type="text" value="2"/>	Purchase requisitions in opening period
SA Deliv. Sched. Lines	<input type="text" value="3"/>	Schedule lines
Create MRP List	<input type="text" value="1"/>	MRP list
Planning mode	<input type="text" value="1"/>	Adapt planning data (normal mode)
Scheduling	<input type="text" value="1"/>	Determination of Basic Dates for Planned
Process Control Parameters		
<input type="checkbox"/> Also plan unchanged components		
<input type="checkbox"/> Display results before they are saved		
<input checked="" type="checkbox"/> Display material list		
<input type="checkbox"/> Simulation mode		

Select  (Enter). A warning message will appear asking you to check input parameters. Press Enter to confirm and bypass the warning message.

To start the planning run, click on  (Continue) and review the planning details from the List Display.

Single-Item, Multi-Level

 Materials

Statistics

Materials planned	17
Materials with New Exceptions	17
Materials with Termination MRP List	

Parameters

Plnt	DLOO
Processing Key	NETCH
Create Purchase Requisition	2
SA Schedule Line	3
Create MRP List	1
Planning Mode	1
Scheduling	1

Database Statistics

Planned orders created	192
Purchase requisitions created	12
Dependent requirements created	192

Runtime Statistics

Start of Planning Run	11:25:53
End of Planning Run	11:25:56
Runtime	00:00:03
CPU Time Read-In	00:00:01
CPU Time: BOM Explosion	00:00:01
CPU Time: Update	00:00:01

Click on the exit icon  to return to the SAP Easy Access screen.



8) Review Stock/Requirements List

The Stock/Requirements List is a dynamic list which dynamically changes whenever a transaction occurs using the given material. Display and review the Stock/Requirements List for all materials of the red deluxe touring bike on hand and the demand that exists against these products. The report shows that there is no stock and therefore nothing is available for use at this time.

Stock/Requirements List

To review the Stock/Requirements List, follow the menu path:

Logistics ▶ Production ▶ Production Planning ▶ MPS ▶ Evaluations ▶ Stock/Reqmts List

Menu path

On the Individual access tab, enter Material **DXTR3###** and Plant **DL00** and click on (Enter).

DXTR3###
DL00

A..	Date	MRP ...	MRP element data	Rescheduli...	E..	Receipt/Reqmt	Available Qty
	06/23/2014	Stock					0
	06/01/2014	IndReq	VSF			101-	101-
	06/30/2014	----->	End of Planning Tim...				
	06/30/2014	PldOrd	0000000001/STCK			101	0
	07/01/2014	PldOrd	0000000002/STCK			92	92
	07/01/2014	IndReq	VSF			92-	0
	08/01/2014	PldOrd	0000000003/STCK			105	105

Choose (Switch to Period Totals). This will allow you to see the planned independent requirements, planned receipts, and ATP quantities based on time; days, weeks, or months.

Stock/Requirements List: Period Totals as of 11:31 hrs

Show Overview Tree     

Material Deluxe Touring Bike (red)
 Plant MRP type Material Type Unit

 Days  Weeks  Months

A..	Period/segment	Plnd ind.re...	Requireme...	Receipts	Avail. qua...	ATP quan...	Actu...
	Stock				0	0	23.0
	06/01/14	101-	0	0	101-	0	30.0
	06/30/14	0	0	101	0	101	0.0
	06/30/14 End of Planni						
	07/01/14	92-	0	92	0	92	0.0
	08/01/14	105-	0	105	0	105	0.0

Select  to go back to the individual lines.

To view the details of the first planned order (PldOrd), select  (Element Details).

Additional Data for MRP Element

Plnd order Make-to-stock Order finish GR ProcTme
 Order qty EA Order start Proc. type
 Scrap Planned opening Order type

       -> Prod.Ord. -> PartConvProdOrder -> Proc.Ord. -> SubProcOrd -> Pur.Reg. 

Select  (Pegged Requirements).

Pegged Requirements

Planned dates	Material	Material Description	Material Memo	Plant	EI	Data Recpt/reqd	Quantity
06/01/2014	DXTR3000	Deluxe Touring Bike (red)		DL00	PP	VSF	101

You can see that this planned order is to fulfill our Safety Stock and the first planned independent requirement that was created when we disaggregated our SOP.

Select  (Graphic) to see a graphical view of this information.

Click on the exit icon  twice to return to the SAP Easy Access screen.



9) Convert Planned Order into Production Order

To convert planned orders into production orders, follow the menu path:

Logistics ► Production ► MRP ► Evaluations ► Stock/Requirements List

Menu path

Enter Material **DXTR3###**, Plant **DL00**, and click on  (Enter). Then, double-click on the second planned order.

DXTR3###
DL00

A..	Date	MRP ...	MRP element data	Rescheduli...	E..	Receipt/Reqmt	Available Qty
	06/23/2014	Stock					0
	06/01/2014	IndReq	VSF			101-	101-
	06/30/2014	----->	End of Planning Tim...				
	06/30/2014	PldOrd	0000000001/STCK			101	0
	07/01/2014	PldOrd	0000000002/STCK			92	92

In the Additional Data screen, click on  (Convert planned order to production order).

Production order Create: Header

Material Capacity 

Order: %00000000001  Type: PP01
 Material: DXTR3000 Deluxe Touring Bike (red) Plant: DL00
 Status: REL MSPT SETC 

General Assignment Goods Receipt Control Dates/Qties Master Data Long Text

Quantities

Total Qty: 92 EA Scrap Portion: 0.00 %
 Delivered: 0 Short/Exc. Rcpt: 0

Note At this point, please note down the total quantity in your production order. You will need it later when confirming your order.

Total quantity

Determine the status of your order by clicking on . What does this mean? _____

Note When you converted the planned order to a production order scheduling takes place, an availability check was automatically carried out and a reservation was placed on the materials specified within the bill of materials. The order was also automatically released when the production order was created.

Click on  to go back to the header screen and save your production order with .

Note When you save the production order the system will automatically calculate the planned costs for the production order and the production order is given a number.

 Order number 1000020 saved

Make sure you record your production order number.

Production
order
number

Select  (Refresh) to refresh the Stock/Requirements List. In the MRP Element column the planned order **PldOrd** that you selected should now have changed into a production order **PrdOrd**.

A..	Date	MRP ...	MRP element data	Rescheduli...	E..	Receipt/Reqmt	Available Qty
	06/23/2014	Stock					0
	06/01/2014	IndReq	V5F			101-	101-
	06/30/2014	----->	End of Planning Tim...				
	06/30/2014	PldOrd	0000000001/STCK			101	0
	07/01/2014	PrdOrd	000001000020/PP01/Re			92	92
	07/01/2014	IndReq	V5F			92-	0

Click on the exit icon  to return to the SAP Easy Access screen.



10) Receive Goods in Inventory

Usually, at this point the purchasing department in Dallas would take over and procure enough raw materials from vendors to fill the inventory so that the production process can be initiated. In this case study, we are bypassing this procurement process (this process is explained in the MM unit in detail). Because the inventory for all DXTR3### components is empty, we will assume that we find 500 pieces each in the storage location.

Goods receipt

To receive goods in the inventory, follow the menu path:

Logistics ▶ Materials Management ▶ Inventory Management ▶ Goods Movements ▶ Goods Receipt ▶ Other

Menu path

Make sure you click on **Other** and not on **Other (MIGO)**. This should produce the following screen.

Enter **today** as Document and Posting Date, Movement Type **561** (Receipt per initial entry of stock balances into unr.-use), Plant **DL00**, and leave Storage Location blank. Then, press Enter or click on

today
561
DL00

In the Enter Other Goods Receipts: New Item screen, enter the following data. Each one of these ten materials are components that you later on need in your production order. Note that all materials are stored in the raw materials storage location in Dallas except the touring wheel assembly (first component in the list) which is a semi-finished good.

Material	Quantity	SLoc
TRWA1### (Touring Aluminum Wheel Assembly)	500	SF00
TRFR3### (Touring Frame-Red)	500	RM00
DGAM1### (Derailleur Gear Assembly)	500	RM00
TRSK1### (Touring Seat Kit)	500	RM00
TRHB1### (Touring Handle Bar)	500	RM00
PEDL1### (Pedal Assembly)	500	RM00

TRWA1###
TRFR3###
DGAM1###
TRSK1###

CHAN1### (Chain)	500	RM00	TRHB1###
BRKT1### (Brake Kit)	500	RM00	PEDL1###
WDOC1### (Warranty Document)	500	RM00	CHAN1###
PCKG1### (Packaging)	500	RM00	BRKT1###

WDOC1###
PCKG1###

Before pressing Enter compare your screen with the screenshot shown below. Remember that your material numbers are different.

If there are not enough rows for all materials, click on  (New Items).

Items							
F	Item	Material	Quantity	UnE	SLoc	Batch	Re
1		TRWA1000	500		SFO0		
2		TRFR3000	500		RM00		
3		DGAM1000	500		RM00		
4		TRSK1000	500		RM00		
5		TRHB1000	500		RM00		
6		PEDL1000	500		RM00		
7		CHAN1000	500		RM00		
8		BRKT1000	500		RM00		
9		WDOC1000	500		RM00		
10		PCKG1000	500		RM00		

Save your goods receipt with  and record the material document number. Then, click on the exit icon  to return to the SAP Easy Access screen.

Material document
number

11) Issue Goods to Production Order

The goods issue process is fully defined in the production order, BOM, and routing. The quantities and the materials are reserved for this specific production order, will be withdrawn with reference to the order number, and will be used to assign actual costs to the production order for managerial accounting purposes.

Goods
issue

To issue goods to a production order, follow the menu path:

Logistics ► Production ► Shop Floor Control ► Goods Movements ► Goods Issue

Menu path

This should produce the following screen.

Enter **today** as Document Date and Posting Date, Movement Type **261** (Consumption for order from warehouse), Plant **DL00**, and leave Storage Location blank. Then, click on the **To Order...** button.

today
today
261
DL00

Enter your **production order number** from two tasks back.

Production
order
number

If you have not written down your production order number you can find it in the system. In order to do so, in the Order field press **F4** or click on the search icon .

F4

In the Order Number (1) screen, use the icon on the far right  to display a list of all tabs. Please select the Production orders using the info system tab. On this tab, enter your material **DXTR3###** in the Material field and click on . Double-click on the result row to adopt your production order number into the initial screen.

DXTR3##
#

Once you have found and entered your production order number, click on  to continue.

An itemized list will appear. It lists all the materials and their respective quantities

that need to be issued to your order. You need to tell the system what Storage Location the materials should be withdrawn from. For the wheel assembly (TRWA1###), enter **SF00** (Semi-finished goods) and for all other materials **RM00** (Raw materials) in the SLoc fields. Before pressing Enter compare your screen with the one shown below.

SF00
RM00

Items										
F	Item	Material	Quantity	UnE	SLoc	Batch	Re	Plnt	Itm	FIs
<input checked="" type="checkbox"/>	1	TRWA1000	184	EA	SF00			DL00	1	<input type="checkbox"/>
<input checked="" type="checkbox"/>	2	TRFR3000	92	EA	RM00			DL00	2	<input type="checkbox"/>
<input checked="" type="checkbox"/>	3	DGAM1000	92	EA	RM00			DL00	3	<input type="checkbox"/>
<input checked="" type="checkbox"/>	4	TRSK1000	92	EA	RM00			DL00	4	<input type="checkbox"/>
<input checked="" type="checkbox"/>	5	TRHB1000	92	EA	RM00			DL00	5	<input type="checkbox"/>
<input checked="" type="checkbox"/>	6	PEDL1000	92	EA	RM00			DL00	6	<input type="checkbox"/>
<input checked="" type="checkbox"/>	7	CHAN1000	92	EA	RM00			DL00	7	<input type="checkbox"/>
<input checked="" type="checkbox"/>	8	BRKT1000	92	EA	RM00			DL00	8	<input type="checkbox"/>
<input checked="" type="checkbox"/>	9	WDOC1000	92	EA	RM00			DL00	9	<input type="checkbox"/>
<input checked="" type="checkbox"/>	10	PCKG1000	92	EA	RM00			DL00	10	<input type="checkbox"/>

Click on the **Adopt + Details** button. A series of screens will appear asking you to copy in the requirements for each of the dependent requirements. Click on  to accept the details for each material.

Finally, on the Enter Goods Issue: Overview screen you will see all of the goods issue quantities for each of the materials.

Enter Goods Issue: Overview									
		 To Reservation...		 To Order...					
Posting Date		06/23/2014							
Items									
Item	Quantity	EU	Material	Plnt	SLoc	Batch	Re	MvT	S \$
			BUn	Material Description		Reserv.No.	Itm	FIs	
1	184	EA	TRWA1000	DL00	SF00			261	-
			Touring Aluminum Wheel Assembly		48	1			
2	92	EA	TRFR3000	DL00	RM00			261	-
			Touring Frame-Red		48	2			
3	92	EA	DGAM1000	DL00	RM00			261	-
			Derailleur Gear Assembly		48	3			
4	92	EA	TRSK1000	DL00	RM00			261	-
			Touring Seat Kit		48	4			
5	92	EA	TRHB1000	DL00	RM00			261	-
			Touring Handle Bar		48	5			
6	92	EA	PEDL1000	DL00	RM00			261	-
			Pedal Assembly		48	6			
7	92	EA	CHAN1000	DL00	RM00			261	-
			Chain		48	7			

Click on  (Post) and record the material document number.

Material
document
number

Click on the exit icon  to return to the SAP Easy Access screen.



12) Review Production Order Status

To display the production order, follow the menu path:

Logistics ► Production ► Shop Floor Control ► Order ► Display

Menu path

Enter the number of your **production order**.

Production order number

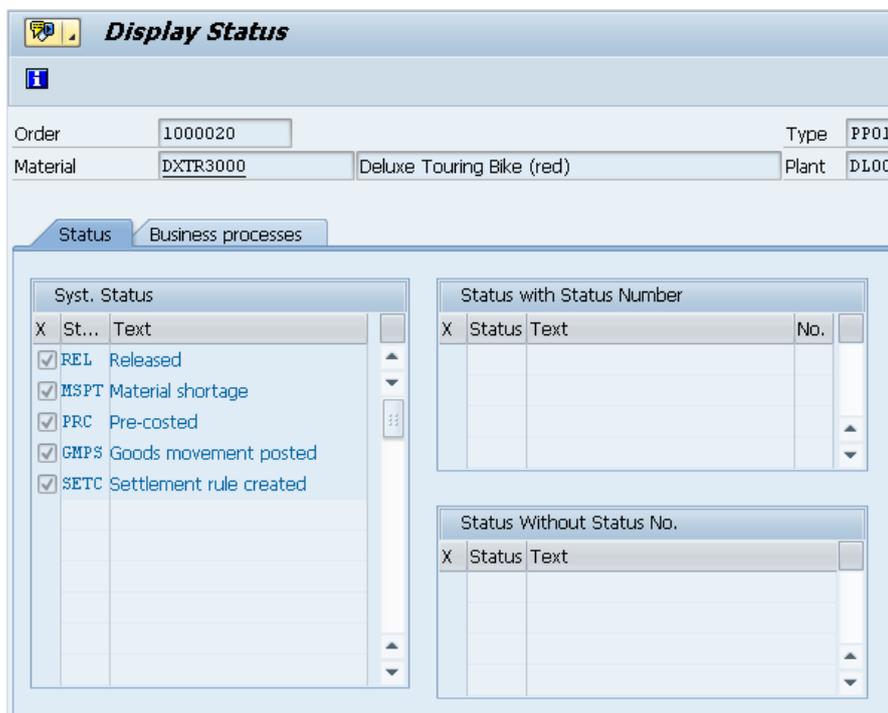
If you have not written down your production order number you can find it in the system. In order to do so, in the Order field press **F4** or click on the search icon .

F4

In the Order Number (1) screen, use the icon on the far right  to display a list of all tabs. Please select the Production orders using the info system tab. On this tab, enter your material **DXTR3###** in the Material field and click on . Double-click on the result row to adopt your production order number into the initial screen.

DXTR3##
#

When your production order number is entered, click on . Note that the order status has changed and review it by clicking on  again.



Order	1000020	Type	PP01
Material	DXTR3000	Deluxe Touring Bike (red)	Plant DL00

Sys. Status	
X	St... Text
<input checked="" type="checkbox"/>	REL Released
<input checked="" type="checkbox"/>	MSPT Material shortage
<input checked="" type="checkbox"/>	PRC Pre-costed
<input checked="" type="checkbox"/>	GMPS Goods movement posted
<input checked="" type="checkbox"/>	SETC Settlement rule created

Status with Status Number			
X	Status	Text	No.

Status Without Status No.		
X	Status	Text

You did a goods issue to the production order in the last task. Now, you want to review the cost assigned to the order, the material document, and the corresponding accounting document.

In order to do so, click on  to go back to the header screen and then in the system menu select:

Goto ► Costs ► Analysis

Cost Element	Cost Element (Text)	Origin	∑ Total target costs	∑ Total actual costs	∑ Target/actual var.	T/I var(%)	Curr
720300	Semi-Finished Consumption Expense	DL00/TRWA1000	0.00	20,240.00	20,240.00		USD
			0.00	20,240.00	20,240.00		USD
720000	Raw Material Consumption Expense	DL00/DGAM1000	0.00	6,900.00	6,900.00		USD
720000	Raw Material Consumption Expense	DL00/TRFR3000	0.00	18,400.00	18,400.00		USD
720000	Raw Material Consumption Expense	DL00/TRSK1000	0.00	4,600.00	4,600.00		USD
720000	Raw Material Consumption Expense	DL00/TRHB1000	0.00	2,300.00	2,300.00		USD
720000	Raw Material Consumption Expense	DL00/PEDL1000	0.00	4,140.00	4,140.00		USD
720000	Raw Material Consumption Expense	DL00/CHAN1000	0.00	920.00	920.00		USD
720000	Raw Material Consumption Expense	DL00/BRKT1000	0.00	6,440.00	6,440.00		USD
720000	Raw Material Consumption Expense	DL00/WDOC1000	0.00	92.00	92.00		USD
720000	Raw Material Consumption Expense	DL00/PCKG1000	0.00	322.00	322.00		USD
	Raw Materials		0.00	44,114.00	44,114.00		USD
			0.00	64,354.00	64,354.00		USD

Here you can see the costs that were assigned to the production order from our goods issue.

Click on the exit icon  to go back to the SAP Easy Access menu.



13) Confirm Production Completion

When the assembly has been completed for the current production order, we need to confirm that certain procedures and activities have been completed and record the quantity of the end product that has been manufactured.

Production completion

To confirm production completion, follow the menu path:

Logistics ► Production ► Shop Floor Control ► Confirmation ► Enter ► For Order

Menu path

Enter your **production order** number and click on .

Production order number

Select **Final Confirm.** and **Clear Reservation.** In the Yield to conf. field, enter the **amount** of bikes you were supposed to produce for this order. Remember that your amount might be different from the screen below.

Final Confirm.
Clear Reservation
Amount

Confirmation of Production Order Enter : Actual Data					
 Goods Movements					
Order	<input type="text" value="1000020"/>	Status:	REL MSPT PRC GMPS SETC		
Material Number	<input type="text" value="DXTR3000"/>	Deluxe Touring Bike (red)			
Confirmation Type					
<input type="radio"/> Partial Confirm. <input checked="" type="radio"/> Final Confirm. <input type="radio"/> Aut. Final Conf. <input checked="" type="checkbox"/> Clear Reservation					
Actual Data					
	Curr. t/b Conf.	Unit	Confirmed to Date	Planned t/b Conf.	Unit
Yield to conf.	<input type="text" value="92"/>	<input type="text"/>			
Confirmed scrap	<input type="text"/>				
Rework	<input type="text"/>				
Reason for Var.	<input type="text"/>				

Then, change the Execution start to **1 hour earlier** than the default time.

1 hour earlier

	To Be Confirmed	
Execution start	<input type="text" value="06/23/2014"/>	<input type="text" value="13:00:18"/>
Finish Execut.	<input type="text" value="06/23/2014"/>	<input type="text" value="14:00:18"/>
Posting date	<input type="text" value="06/23/2014"/>	

Click on  and save your entries with .

Note When the confirmation is saved, labor costs for the order are calculated automatically. The quantity yield also establishes the parameters for the goods receipt into Inventory.

Click on the exit icon  to return to the SAP Easy Access screen.



14) Receive Goods from Production Order

Receive the completed products into finished goods inventory. Check the quantity purposed against the quantity specified in the production order and the quantity specified during confirmation. If there are any discrepancies, the system will decide if an error or warning message should be generated depending upon the deviation identified.

Goods receipt

To post a goods receipt, follow the menu path:

Logistics ► Production ► Shop Floor Control ► Goods Movements ► Goods Receipt

Menu path

This produces the following screen.

Goods Receipt for Order: Initial Screen

Adopt + Details To Order... WM Parameters...

Document Date Posting Date
 Delivery Note
 Doc. Header Text

Defaults for Document Items

Movement Type
 Order
 Plant Reason for Movement
 Stor. Location Suggest Zero Lines

Enter Movement Type **101** (Goods receipt for order to warehouse), your **production order number**, Plant **DL00**, Stor. Location **FG00** (Finished Goods), and select **Adopt + Details**.

101
Production order
number
DL00
FG00

Goods Receipt for Order: New Items 0001

Order Movement Type GR for order
 Plant Plant Dallas
 Material Deluxe Touring Bike (red)
 Stock Material
 Ordered EA
 Received

Quantity in

Unit of Entry EA Stor. Location Stock Type
 Batch

Ensure that the quantity to be placed into inventory and the storage location are correct. Then, click on  to accept the details for the new bikes received from production.

Posting Date

Items						
F Item	Quantity	EUn	Material	Plnt	SLoc	Order
		BUn	Material Description			Batch
						Re MvT
1	92	EA	DXTR3000	DL00	FG00	1000020
			Deluxe Touring Bike (red)			
						101

In the overview screen, review the item to ensure that all the data is correct.

- Movement Type → 101 (goods receipt into Inventory)
- Storage Location → FG00 (Inventory)
- Quantity → should equal the amount that you confirmed in the previous task

Click on  to post the goods receipt. When you save this material document the actual value of the material produced was entered into the production order.

Material document
number

Document 5000000011 posted

Record the material document number.

Click on the exit icon  to return to the SAP Easy Access screen.



15) Review Costs Assigned to Production Order

To display costs assigned, follow the menu path:

Logistics ► Production ► Shop Floor Control ► Order ► Display

Menu path

Enter your **production order number**, and click on  (Enter).

Production
order
number

In the system menu, select:

Goto ► Costs ► Analysis

Cost Element	Cost Element (Text)	Origin	Σ Total target costs	Σ Total actual costs	Σ Target/actual var.	T/I var(%)	Curren
720300	Semi-Finished Consumption Expense	DL00/TRWA1000	0.00	20,240.00	20,240.00		USD
741700	Manufacturing Output Settlement Va...	DL00/DXTR3000	0.00	128,800.00-	128,800.00-		USD
			0.00	108,560.00-	108,560.00-		USD
800000	Labor	NAPR1000/LABOR	0.00	2,301.75	2,301.75		USD
	Production		0.00	2,301.75	2,301.75		USD
720000	Raw Material Consumption Expense	DL00/DGAM1000	0.00	6,900.00	6,900.00		USD
720000	Raw Material Consumption Expense	DL00/TRFR3000	0.00	18,400.00	18,400.00		USD
720000	Raw Material Consumption Expense	DL00/TRSK1000	0.00	4,600.00	4,600.00		USD
720000	Raw Material Consumption Expense	DL00/TRHB1000	0.00	2,300.00	2,300.00		USD
720000	Raw Material Consumption Expense	DL00/PEDL1000	0.00	4,140.00	4,140.00		USD
720000	Raw Material Consumption Expense	DL00/CHAN1000	0.00	920.00	920.00		USD
720000	Raw Material Consumption Expense	DL00/BRKT1000	0.00	6,440.00	6,440.00		USD
720000	Raw Material Consumption Expense	DL00/WDOC1000	0.00	92.00	92.00		USD
720000	Raw Material Consumption Expense	DL00/PCKG1000	0.00	322.00	322.00		USD
	Raw Materials		0.00	44,114.00	44,114.00		USD
			0.00	62,144.25-	62,144.25-		USD

Now that the finished products have been received in the Inventory, the Manufacturing Output Settlement Variance has been added. How is this figure calculated by the system?

Click on the exit icon  to return to the SAP Easy Access screen.



16) Settle Costs of Production Order

To settle costs of a production order, follow the menu path:

Logistics ▶ Production ▶ Shop Floor Control ▶ Period-End Closing ▶ Settlement ▶ Individual Processing

Menu path

If you have to input the Controlling Area, enter **NA00**, and click on .

NA00

Actual Settlement: Order

🔄 Settlement Rule

Order

Parameters

Settlement period	<input type="text" value="006"/>	Posting period	<input type="text" value="006"/>
Fiscal Year	<input type="text" value="2014"/>	Asset Value Date	<input type="text"/>
Processing type	<input type="text" value="1 Automatic"/>		

Enter your **production order number**, the **current month** as Settlement period (e.g. 007 for July), the **current month** as Posting period, and the **current year** as Fiscal year. Make sure that **Test Run** is selected.

Production order
number
current month
current month
current year
Test Run

Then, click on  (Execute).

Processing Options

Selection Parameters	Value
Execution type	Settlement executed
Processing mode	Test run

Processing completed with no errors

Processing category	Σ	Number
Settlement executed		1
No change		
Not relevant		
Inappropriate status		
Error		
		1

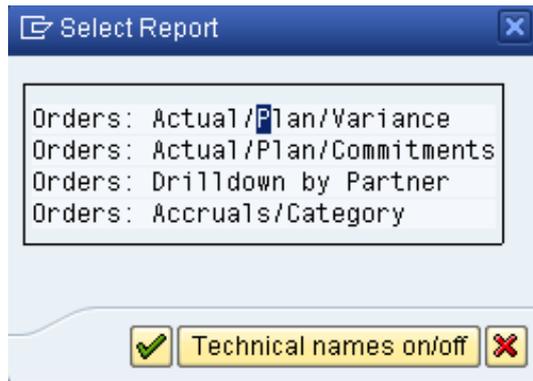
Click on  (Detail lists). In the system menu, choose:

Environments ▶ Report

Then, double-click on **Actual/Plan/Variance** to select the report.

Actual/Plan/Varian

ce



Orders: Actual/Plan/Variance

Orders: Actual/Plan/Variance Date: 06/23/2014 14:18:14

Order/Group 1000020 000001000020
 Fiscal year 2014
 Period 1 - 6

Cost Elements	Actual	Plan
720000 RM Consumpt Expense	44,114.00	44,114.00
720300 SF Consumpt Expense	20,240.00	20,240.00
800000 Labor	2,301.75	2,301.75
* Costs	66,655.75	66,655.75
741700 Mfac Output Sett Var	128,800.00-	
* Deliveries to Stock	128,800.00-	
** Balance	62,144.25-	66,655.75

Click on to go back. Then, select and click on twice.

Deselect **Test Run** and execute again with . Click on (Detail lists) and select (Report). Choose report **Actual/Plan/Variance**.

Yes

Test Run

Actual/Plan/Variance

ce

Orders: Actual/Plan/Variance		
Orders: Actual/Plan/Variance		Date: 06/23/2014 14:19:30
Order/Group	1000020	000001000020
Fiscal year	2014	
Period	1 - 6	
Cost Elements	Actual	Plan
720000 RM Consumpt Expense	44,114.00	44,114
720300 SF Consumpt Expense	20,240.00	20,240
800000 Labor	2,301.75	2,301
* Costs	66,655.75	66,655
741700 Mfac Output Sett Var	62,144.25	
* Settled Costs	62,144.25	
741700 Mfac Output Sett Var	128,800.00-	
* Deliveries to Stock	128,800.00-	
** Balance		66,655

Note The manufacturing output settlement is higher than the consumption expenses for raw materials and semi-finished goods? Review and explain the expenses and the settlements of your production order in detail. How is the balance derived?

Click on , choose and click on  again to return to the SAP Easy Access screen.

Yes

5. 实验方式

每位同学独立上机编程实验，实验指导教师现场指导。